



# Surge-Protective Devices

UL Product iQ™



## VZCA2.E332800 - SURGE-PROTECTIVE DEVICES - COMPONENT

### Surge-protective Devices - Component

See General Information for Surge-protective Devices - Component

VISHAY RESISTORS BELGIUM BVBA  
TWEË HUIZENSTRAAT 37  
1140 BRUSSELS (EVERE), BELGIUM

E332800

Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
115V-E 585	5	115	AC	1	n/a	-40	85	Ld-Ld	-	520	115	180	3	N/A	1,5a
	5	150	DC	-	n/a	-40	85	Ld-Ld	-	520	150	180	3	N/A	1,5a
130V-E 585	5	130	AC	1	n/a	-40	85	Ld-Ld	-	580	130	200	3	N/A	1,5a
	5	170	DC	-	n/a	-40	85	Ld-Ld	-	580	170	200	3	N/A	1,5a
140V-E 585	5	140	AC	1	n/a	-40	85	Ld-Ld	-	610	140	220	3	N/A	1,5a
	5	180	DC	-	n/a	-40	85	Ld-Ld	-	610	180	220	3	N/A	1,5a
150V-E 585	5	150	AC	1	n/a	-40	85	Ld-Ld	-	650	150	240	3	N/A	1,5a
	5	200	DC	-	n/a	-40	85	Ld-Ld	-	650	200	240	3	N/A	1,5a
175V-E 585	5	175	AC	1	n/a	-40	85	Ld-Ld	-	740	175	270	3	N/A	1,5a
	5	225	DC	-	n/a	-40	85	Ld-Ld	-	740	225	270	3	N/A	1,5a
195V-E 585	5	195	AC	1	n/a	-40	85	Ld-Ld	-	810	195	300	3	N/A	1,5a
	5	250	DC	-	n/a	-40	85	Ld-Ld	-	810	250	300	3	N/A	1,5a
210V-E 585	5	210	AC	1	n/a	-40	85	Ld-Ld	-	870	210	330	3	N/A	1,5a
	5	275	DC	-	n/a	-40	85	Ld-Ld	-	870	275	330	3	N/A	1,5a
230V-E 585	5	230	AC	1	n/a	-40	85	Ld-Ld	-	940	230	360	3	N/A	1,5a
	5	300	DC	-	n/a	-40	85	Ld-Ld	-	940	300	360	3	N/A	1,5a
250V-E 585	5	250	AC	1	n/a	-40	85	Ld-Ld	-	1020	250	390	3	N/A	1,5a
	5	320	DC	-	n/a	-40	85	Ld-Ld	-	1020	320	390	3	N/A	1,5a
275V-E 585	5	275	AC	1	n/a	-40	85	Ld-Ld	-	1110	275	430	3	N/A	1,5a
	5	350	DC	-	n/a	-40	85	Ld-Ld	-	1110	350	430	3	N/A	1,5a
300V-E 585	5	300	AC	1	n/a	-40	85	Ld-Ld	-	1200	300	470	3	N/A	1,5a
	5	385	DC	-	n/a	-40	85	Ld-Ld	-	1200	385	470	3	N/A	1,5a
50V-E 585	5	50	AC	1	n/a	-40	85	Ld-Ld	-	310	50	82	3	N/A	1,5a
	5	65	DC	-	n/a	-40	85	Ld-Ld	-	310	65	82	3	N/A	1,5a
60V-E 585	5	60	AC	1	n/a	-40	85	Ld-Ld	-	340	60	100	3	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	340	85	100	3	N/A	1,5a
75V-E 585	5	75	AC	1	n/a	-40	85	Ld-Ld	-	390	75	120	3	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	390	100	120	3	N/A	1,5a
95V-E 585	5	95	AC	1	n/a	-40	85	Ld-Ld	-	450	95	150	3	N/A	1,5a
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	450	125	150	3	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
VDRH(#)05B011[%], 11V-E 582	5	11	AC	1	n/a	-40	85	Ld-Ld	-	70	11	18	0.1	N/A	1,5a
	5	14	DC	-	n/a	-40	85	Ld-Ld	-	70	14	18	0.1	N/A	1,5a
VDRH(#)05B014[%], 14V-E 582	5	14	AC	1	n/a	-40	85	Ld-Ld	-	80	14	22	0.1	N/A	1,5a
	5	18	DC	-	n/a	-40	85	Ld-Ld	-	80	18	22	0.1	N/A	1,5a
VDRH(#)05B017[%], 17V-E 582	5	17	AC	1	n/a	-40	85	Ld-Ld	-	90	17	27	0.1	N/A	1,5a
	5	22	DC	-	n/a	-40	85	Ld-Ld	-	90	22	27	0.1	N/A	1,5a
VDRH(#)05B020[%], 20V-E 582	5	20	AC	1	n/a	-40	85	Ld-Ld	-	100	20	33	0.1	N/A	1,5a
	5	26	DC	-	n/a	-40	85	Ld-Ld	-	100	26	33	0.1	N/A	1,5a
VDRH(#)05B025[%], 25V-E 582	5	25	AC	1	n/a	-40	85	Ld-Ld	-	120	25	39	0.1	N/A	1,5a
	5	31	DC	-	n/a	-40	85	Ld-Ld	-	120	31	39	0.1	N/A	1,5a
VDRH(#)05B030[%], 30V-E 582	5	30	AC	1	n/a	-40	85	Ld-Ld	-	140	30	47	0.1	N/A	1,5a
	5	38	DC	-	n/a	-40	85	Ld-Ld	-	140	38	47	0.1	N/A	1,5a
VDRH(#)05B035[%], 35V-E 582	5	35	AC	1	n/a	-40	85	Ld-Ld	-	160	35	56	0.1	N/A	1,5a
	5	45	DC	-	n/a	-40	85	Ld-Ld	-	160	45	56	0.1	N/A	1,5a
VDRH(#)05B040[%], 40V-E 582	5	40	AC	1	n/a	-40	85	Ld-Ld	-	180	40	68	0.1	N/A	1,5a
	5	56	DC	-	n/a	-40	85	Ld-Ld	-	180	56	68	0.1	N/A	1,5a
VDRH(#)05E050[%], 50V-E 582	5	50	AC	1	n/a	-40	85	Ld-Ld	-	170	50	82	0.1	N/A	1,5a
	5	65	DC	-	n/a	-40	85	Ld-Ld	-	170	65	82	0.1	N/A	1,5a
VDRH(#)05E060[%], 60V-E 582	5	60	AC	1	n/a	-40	85	Ld-Ld	-	200	60	100	0.1	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	200	85	100	0.1	N/A	1,5a
VDRH(#)05E075[%], 75V-E 582	5	75	AC	1	n/a	-40	85	Ld-Ld	-	250	75	120	0.1	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	250	100	120	0.1	N/A	1,5a
VDRH(#)05E095[%], 95V-E 582	5	95	AC	1	n/a	-40	85	Ld-Ld	-	310	95	150	0.1	N/A	1,5a
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	310	125	150	0.1	N/A	1,5a
VDRH(#)05E115[%], 115V-E 582	5	115	AC	1	n/a	-40	85	Ld-Ld	-	350	115	180	0.1	N/A	1,5a
	5	150	DC	-	n/a	-40	85	Ld-Ld	-	350	150	180	0.1	N/A	1,5a
VDRH(#)05E130[%], 130V-E 582	5	130	AC	1	n/a	-40	85	Ld-Ld	-	390	130	200	0.1	N/A	1,5a
	5	170	DC	-	n/a	-40	85	Ld-Ld	-	390	170	200	0.1	N/A	1,5a
VDRH(#)05E140[%], 140V-E 582	5	140	AC	1	n/a	-40	85	Ld-Ld	-	420	140	220	0.1	N/A	1,5a
	5	180	DC	-	n/a	-40	85	Ld-Ld	-	420	180	220	0.1	N/A	1,5a
VDRH(#)05E150[%], 150V-E 582	5	150	AC	1	n/a	-40	85	Ld-Ld	-	440	150	240	0.1	N/A	1,5a
	5	200	DC	-	n/a	-40	85	Ld-Ld	-	440	200	240	0.1	N/A	1,5a
VDRH(#)05E175[%], 175V-E 582	5	175	AC	1	n/a	-40	85	Ld-Ld	-	510	175	270	0.1	N/A	1,5a
	5	225	DC	-	n/a	-40	85	Ld-Ld	-	510	225	270	0.1	N/A	1,5a
VDRH(#)05E195[%], 195V-E 582	5	195	AC	1	n/a	-40	85	Ld-Ld	-	570	195	300	0.1	N/A	1,5a
	5	250	DC	-	n/a	-40	85	Ld-Ld	-	570	250	300	0.1	N/A	1,5a
VDRH(#)05E210[%], 210V-E 582	5	210	AC	1	n/a	-40	85	Ld-Ld	-	610	210	330	0.1	N/A	1,5a
	5	275	DC	-	n/a	-40	85	Ld-Ld	-	610	275	330	0.1	N/A	1,5a
VDRH(#)05E230[%], 230V-E 582	5	230	AC	1	n/a	-40	85	Ld-Ld	-	660	230	360	0.1	N/A	1,5a
	5	300	DC	-	n/a	-40	85	Ld-Ld	-	660	300	360	0.1	N/A	1,5a
VDRH(#)05E250[%], 250V-E 582	5	250	AC	1	n/a	-40	85	Ld-Ld	-	710	250	390	0.1	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
	5	320	DC	-	n/a	-40	85	Ld-Ld	-	710	320	390	0.1	N/A	1,5a
VDRH(#)05E275[%], 275V-E 582	5	275	AC	1	n/a	-40	85	Ld-Ld	-	780	275	430	0.1	N/A	1,5a
	5	350	DC	-	n/a	-40	85	Ld-Ld	-	780	350	430	0.1	N/A	1,5a
VDRH(#)05E300[%], 300V-E 582	5	300	AC	1	n/a	-40	85	Ld-Ld	-	850	300	470	0.1	N/A	1,5a
	5	375	DC	-	n/a	-40	85	Ld-Ld	-	850	375	470	0.1	N/A	1,5a
VDRH(#)05E320[%], 320V-E 582	5	320	AC	1	n/a	-40	85	Ld-Ld	-	920	320	510	0.1	N/A	1,5a
	5	415	DC	-	n/a	-40	85	Ld-Ld	-	920	415	510	0.1	N/A	1,5a
VDRH(#)05E350[%], 350V-E 582	5	350	AC	1	n/a	-40	85	Ld-Ld	-	1020	350	560	0.1	N/A	1,5a
	5	460	DC	-	n/a	-40	85	Ld-Ld	-	1020	460	560	0.1	N/A	1,5a
VDRH(#)05E385[%], 385V-E 582	5	385	AC	1	n/a	-40	85	Ld-Ld	-	1140	385	620	0.1	N/A	1,5a
	5	505	DC	-	n/a	-40	85	Ld-Ld	-	1140	505	620	0.1	N/A	1,5a
VDRH(#)05E420[%], 420V-E 582	5	420	AC	1	n/a	-40	85	Ld-Ld	-	1260	420	680	0.1	N/A	1,5a
	5	560	DC	-	n/a	-40	85	Ld-Ld	-	1260	560	680	0.1	N/A	1,5a
VDRH(#)05E460[%], 460V-E 582	5	460	AC	1	n/a	-40	85	Ld-Ld	-	1390	460	750	0.1	N/A	1,5a
	5	615	DC	-	n/a	-40	85	Ld-Ld	-	1390	615	750	0.1	N/A	1,5a
VDRH(#)07D011[%], 11V-E 583	5	11	AC	1	n/a	-40	85	Ld-Ld	-	60	11	18	0.15	N/A	1,5a
	5	14	DC	-	n/a	-40	85	Ld-Ld	-	60	14	18	0.15	N/A	1,5a
VDRH(#)07D014[%], 14V-E 583	5	14	AC	1	n/a	-40	85	Ld-Ld	-	70	14	22	0.15	N/A	1,5a
	5	18	DC	-	n/a	-40	85	Ld-Ld	-	70	18	22	0.15	N/A	1,5a
VDRH(#)07D017[%], 17V-E 583	5	17	AC	1	n/a	-40	85	Ld-Ld	-	80	17	27	0.15	N/A	1,5a
	5	22	DC	-	n/a	-40	85	Ld-Ld	-	80	22	27	0.15	N/A	1,5a
VDRH(#)07D020[%], 20V-E 583	5	20	AC	1	n/a	-40	85	Ld-Ld	-	90	20	33	0.15	N/A	1,5a
	5	26	DC	-	n/a	-40	85	Ld-Ld	-	90	26	33	0.15	N/A	1,5a
VDRH(#)07D025[%], 25V-E 583	5	25	AC	1	n/a	-40	85	Ld-Ld	-	110	25	39	0.15	N/A	1,5a
	5	31	DC	-	n/a	-40	85	Ld-Ld	-	110	31	39	0.15	N/A	1,5a
VDRH(#)07D030[%], 30V-E 583	5	30	AC	1	n/a	-40	85	Ld-Ld	-	130	30	47	0.15	N/A	1,5a
	5	38	DC	-	n/a	-40	85	Ld-Ld	-	130	38	47	0.15	N/A	1,5a
VDRH(#)07D035[%], 35V-E 583	5	35	AC	1	n/a	-40	85	Ld-Ld	-	150	35	56	0.15	N/A	1,5a
	5	45	DC	-	n/a	-40	85	Ld-Ld	-	150	45	56	0.15	N/A	1,5a
VDRH(#)07D040[%], 40V-E 583	5	40	AC	1	n/a	-40	85	Ld-Ld	-	190	40	68	0.15	N/A	1,5a
	5	56	DC	-	n/a	-40	85	Ld-Ld	-	190	56	68	0.15	N/A	1,5a
VDRH(#)07K050[%], 50V-E 583	5	50	AC	1	n/a	-40	85	Ld-Ld	-	270	50	82	1	N/A	1,5a
	5	65	DC	-	n/a	-40	85	Ld-Ld	-	270	65	82	1	N/A	1,5a
VDRH(#)07K060[%], 60V-E 583	5	60	AC	1	n/a	-40	85	Ld-Ld	-	310	60	100	1	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	310	85	100	1	N/A	1,5a
VDRH(#)07K075[%], 75V-E 583	5	75	AC	1	n/a	-40	85	Ld-Ld	-	370	75	120	1	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	370	100	120	1	N/A	1,5a
VDRH(#)07K095[%], 95V-E 583	5	95	AC	1	n/a	-40	85	Ld-Ld	-	450	95	150	1	N/A	1,5a
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	450	125	150	1	N/A	1,5a
VDRH(#)07K115[%], 115V-E 583	5	115	AC	1	n/a	-40	85	Ld-Ld	-	520	115	180	1	N/A	1,5a
	5	150	DC	-	n/a	-40	85	Ld-Ld	-	520	150	180	1	N/A	1,5a

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VDRH(#)07K130[%], 130V-E 583	5	130	AC	1	n/a	-40	85	Ld-Ld	-	570	130	200	1	N/A	1,5a
	5	170	DC	-	n/a	-40	85	Ld-Ld	-	570	170	200	1	N/A	1,5a
VDRH(#)07K140[%], 140V-E 583	5	140	AC	1	n/a	-40	85	Ld-Ld	-	610	140	220	1	N/A	1,5a
	5	180	DC	-	n/a	-40	85	Ld-Ld	-	610	180	220	1	N/A	1,5a
VDRH(#)07K150[%], 150V-E 583	5	150	AC	1	n/a	-40	85	Ld-Ld	-	640	150	240	1	N/A	1,5a
	5	200	DC	-	n/a	-40	85	Ld-Ld	-	640	200	240	1	N/A	1,5a
VDRH(#)07K175[%], 175V-E 583	5	175	AC	1	n/a	-40	85	Ld-Ld	-	730	175	270	1	N/A	1,5a
	5	225	DC	-	n/a	-40	85	Ld-Ld	-	730	225	270	1	N/A	1,5a
VDRH(#)07K195[%], 195V-E 583	5	195	AC	1	n/a	-40	85	Ld-Ld	-	800	195	300	1	N/A	1,5a
	5	250	DC	-	n/a	-40	85	Ld-Ld	-	800	250	300	1	N/A	1,5a
VDRH(#)07K210[%], 210V-E 583	5	210	AC	1	n/a	-40	85	Ld-Ld	-	860	210	330	1	N/A	1,5a
	5	275	DC	-	n/a	-40	85	Ld-Ld	-	860	275	330	1	N/A	1,5a
VDRH(#)07K230[%], 230V-E 583	5	230	AC	1	n/a	-40	85	Ld-Ld	-	930	230	360	1	N/A	1,5a
	5	300	DC	-	n/a	-40	85	Ld-Ld	-	930	300	360	1	N/A	1,5a
VDRH(#)07K250[%], 250V-E 583	5	250	AC	1	n/a	-40	85	Ld-Ld	-	1000	250	390	1	N/A	1,5a
	5	320	DC	-	n/a	-40	85	Ld-Ld	-	1000	320	390	1	N/A	1,5a
VDRH(#)07K275[%], 275V-E 583	5	275	AC	1	n/a	-40	85	Ld-Ld	-	1090	275	430	1	N/A	1,5a
	5	350	DC	-	n/a	-40	85	Ld-Ld	-	1090	350	430	1	N/A	1,5a
VDRH(#)07K300[%], 300V-E 583	5	300	AC	1	n/a	-40	85	Ld-Ld	-	1190	300	470	1	N/A	1,5a
	5	385	DC	-	n/a	-40	85	Ld-Ld	-	1190	385	470	1	N/A	1,5a
VDRH(#)07K320[%], 320V-E 583	5	320	AC	1	n/a	-40	85	Ld-Ld	-	1260	320	510	1	N/A	1,5a
	5	418	DC	-	n/a	-40	85	Ld-Ld	-	1260	418	510	1	N/A	1,5a
VDRH(#)07K350[%], 350V-E 583	5	350	AC	1	n/a	-40	85	Ld-Ld	-	1350	350	560	1	N/A	1,5a
	5	460	DC	-	n/a	-40	85	Ld-Ld	-	1350	460	560	1	N/A	1,5a
VDRH(#)07K385[%], 385V-E 583	5	385	AC	1	n/a	-40	85	Ld-Ld	-	1460	385	620	1	N/A	1,5a
	5	505	DC	-	n/a	-40	85	Ld-Ld	-	1460	505	620	1	N/A	1,5a
VDRH(#)07K420[%], 420V-E 583	5	420	AC	1	n/a	-40	85	Ld-Ld	-	1570	420	680	1	N/A	1,5a
	5	560	DC	-	n/a	-40	85	Ld-Ld	-	1570	560	680	1	N/A	1,5a
VDRH(#)07K460[%], 460V-E 583	5	460	AC	1	n/a	-40	85	Ld-Ld	-	1690	460	750	1	N/A	1,5a
	5	615	DC	-	n/a	-40	85	Ld-Ld	-	1690	615	750	1	N/A	1,5a
VDRH(#)07K485[%], 485V-E 583	5	485	AC	1	n/a	-40	85	Ld-Ld	-	1770	485	780	1	N/A	1,5a
	5	640	DC	-	n/a	-40	85	Ld-Ld	-	1770	640	780	1	N/A	1,5a
VDRH(#)07K510[%], 510V-E 583	5	510	AC	1	n/a	-40	85	Ld-Ld	-	1850	510	820	1	N/A	1,5a
	5	670	DC	-	n/a	-40	85	Ld-Ld	-	1850	670	820	1	N/A	1,5a
VDRH(#)10G011[%], 11V-E 584	5	11	AC	1	n/a	-40	85	Ld-Ld	-	70	11	18	0.5	N/A	1,5a
	5	14	DC	-	n/a	-40	85	Ld-Ld	-	70	14	18	0.5	N/A	1,5a
VDRH(#)10G014[%], 14V-E 584	5	14	AC	1	n/a	-40	85	Ld-Ld	-	80	14	22	0.5	N/A	1,5a
	5	18	DC	-	n/a	-40	85	Ld-Ld	-	80	18	22	0.5	N/A	1,5a
VDRH(#)10G017[%], 17V-E 584	5	17	AC	1	n/a	-40	85	Ld-Ld	-	90	17	27	0.5	N/A	1,5a
	5	22	DC	-	n/a	-40	85	Ld-Ld	-	90	22	27	0.5	N/A	1,5a
VDRH(#)10G020[%], 20V-E 584	5	20	AC	1	n/a	-40	85	Ld-Ld	-	100	20	33	0.5	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
	5	26	DC	-	n/a	-40	85	Ld-Ld	-	100	26	33	0.5	N/A	1,5a
VDRH(#) <b>10G025</b> [%], 25V-E 584	5	25	AC	1	n/a	-40	85	Ld-Ld	-	120	25	39	0.5	N/A	1,5a
	5	31	DC	-	n/a	-40	85	Ld-Ld	-	120	31	39	0.5	N/A	1,5a
VDRH(#) <b>10G030</b> [%], 30V-E 584	5	30	AC	1	n/a	-40	85	Ld-Ld	-	140	30	47	0.5	N/A	1,5a
	5	38	DC	-	n/a	-40	85	Ld-Ld	-	140	38	47	0.5	N/A	1,5a
VDRH(#) <b>10G035</b> [%], 35V-E 584	5	35	AC	1	n/a	-40	85	Ld-Ld	-	150	35	56	0.5	N/A	1,5a
	5	45	DC	-	n/a	-40	85	Ld-Ld	-	150	45	56	0.5	N/A	1,5a
VDRH(#) <b>10G040</b> [%], 40V-E 584	5	40	AC	1	n/a	-40	85	Ld-Ld	-	170	40	68	0.5	N/A	1,5a
	5	56	DC	-	n/a	-40	85	Ld-Ld	-	170	56	68	0.5	N/A	1,5a
VDRH(#) <b>10S050</b> [%], 50V-E 584	5	50	AC	1	n/a	-40	85	Ld-Ld	-	250	50	82	1.5	N/A	1,5a
	5	65	DC	-	n/a	-40	85	Ld-Ld	-	250	65	82	1.5	N/A	1,5a
VDRH(#) <b>10S060</b> [%], 60V-E 584	5	60	AC	1	n/a	-40	85	Ld-Ld	-	90	60	100	1.5	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	90	85	100	1.5	N/A	1,5a
VDRH(#) <b>10S075</b> [%], 75V-E 584	5	75	AC	1	n/a	-40	85	Ld-Ld	-	130	75	120	1.5	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	130	100	120	1.5	N/A	1,5a
VDRH(#) <b>10S095</b> [%], 95V-E 584	5	95	AC	1	n/a	-40	85	Ld-Ld	-	500	95	150	1.5	N/A	1,5a
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	500	125	150	1.5	N/A	1,5a
VDRH(#) <b>10S115</b> [%], 115V-E 584	5	115	AC	1	n/a	-40	85	Ld-Ld	-	580	115	180	1.5	N/A	1,5a
	5	150	DC	-	n/a	-40	85	Ld-Ld	-	580	150	180	1.5	N/A	1,5a
VDRH(#) <b>10S130</b> [%], 130V-E 584	5	130	AC	1	n/a	-40	85	Ld-Ld	-	630	130	200	1.5	N/A	1,5a
	5	170	DC	-	n/a	-40	85	Ld-Ld	-	630	170	200	1.5	N/A	1,5a
VDRH(#) <b>10S140</b> [%], 140V-E 584	5	140	AC	1	n/a	-40	85	Ld-Ld	-	670	140	220	1.5	N/A	1,5a
	5	180	DC	-	n/a	-40	85	Ld-Ld	-	670	180	220	1.5	N/A	1,5a
VDRH(#) <b>10S150</b> [%], 150V-E 584	5	150	AC	1	n/a	-40	85	Ld-Ld	-	700	150	240	1.5	N/A	1,5a
	5	200	DC	-	n/a	-40	85	Ld-Ld	-	700	200	240	1.5	N/A	1,5a
VDRH(#) <b>10S175</b> [%], 175V-E 584	5	175	AC	1	n/a	-40	85	Ld-Ld	-	790	175	270	1.5	N/A	1,5a
	5	225	DC	-	n/a	-40	85	Ld-Ld	-	790	225	270	1.5	N/A	1,5a
VDRH(#) <b>10S195</b> [%], 195V-E 584	5	195	AC	1	n/a	-40	85	Ld-Ld	-	860	195	300	1.5	N/A	1,5a
	5	250	DC	-	n/a	-40	85	Ld-Ld	-	860	250	300	1.5	N/A	1,5a
VDRH(#) <b>10S210</b> [%], 210V-E 584	5	210	AC	1	n/a	-40	85	Ld-Ld	-	910	210	330	1.5	N/A	1,5a
	5	275	DC	-	n/a	-40	85	Ld-Ld	-	910	275	330	1.5	N/A	1,5a
VDRH(#) <b>10S230</b> [%], 230V-E 584	5	230	AC	1	n/a	-40	85	Ld-Ld	-	980	230	360	1.5	N/A	1,5a
	5	300	DC	-	n/a	-40	85	Ld-Ld	-	980	300	360	1.5	N/A	1,5a
VDRH(#) <b>10S250</b> [%], 250V-E 584	5	250	AC	1	n/a	-40	85	Ld-Ld	-	1050	250	390	1.5	N/A	1,5a
	5	320	DC	-	n/a	-40	85	Ld-Ld	-	1050	320	390	1.5	N/A	1,5a
VDRH(#) <b>10S275</b> [%], 275V-E 584	5	275	AC	1	n/a	-40	85	Ld-Ld	-	1140	275	430	1.5	N/A	1,5a
	5	350	DC	-	n/a	-40	85	Ld-Ld	-	1140	350	430	1.5	N/A	1,5a
VDRH(#) <b>10S300</b> [%], 300V-E 584	5	300	AC	1	n/a	-40	85	Ld-Ld	-	1300	300	470	3	N/A	1,5a
	5	385	DC	-	n/a	-40	85	Ld-Ld	-	1300	385	470	3	N/A	1,5a
VDRH(#) <b>10S320</b> [%], 320V-E 584	5	320	AC	1	n/a	-40	85	Ld-Ld	-	1390	320	510	3	N/A	1,5a
	5	418	DC	-	n/a	-40	85	Ld-Ld	-	1390	418	510	3	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
VDRH(##)10S350[%], 350V-E 584	5	350	AC	1	n/a	-40	85	Ld-Ld	-	1530	350	560	3	N/A	1,5a
	5	460	DC	-	n/a	-40	85	Ld-Ld	-	1530	460	560	3	N/A	1,5a
VDRH(##)10S385[%], 385V-E 584	5	385	AC	1	n/a	-40	85	Ld-Ld	-	1680	385	620	3	N/A	1,5a
	5	505	DC	-	n/a	-40	85	Ld-Ld	-	1680	505	620	3	N/A	1,5a
VDRH(##)10S420[%], 420V-E 584	5	420	AC	1	n/a	-40	85	Ld-Ld	-	1840	420	680	3	N/A	1,5a
	5	560	DC	-	n/a	-40	85	Ld-Ld	-	1840	560	680	3	N/A	1,5a
VDRH(##)10S460[%], 460V-E 584	5	460	AC	1	n/a	-40	85	Ld-Ld	-	2020	460	750	3	N/A	1,5a
	5	615	DC	-	n/a	-40	85	Ld-Ld	-	2020	615	750	3	N/A	1,5a
VDRH(##)10S485[%], 485V-E 584	5	485	AC	1	n/a	-40	85	Ld-Ld	-	2130	485	780	3	N/A	1,5a
	5	640	DC	-	n/a	-40	85	Ld-Ld	-	2130	640	780	3	N/A	1,5a
VDRH(##)10S510[%], 510V-E 584	5	510	AC	1	n/a	-40	85	Ld-Ld	-	2250	510	820	3	N/A	1,5a
	5	670	DC	-	n/a	-40	85	Ld-Ld	-	2250	670	820	3	N/A	1,5a
VDRH(##)10S550[%], 550V-E 584	5	550	AC	1	n/a	-40	85	Ld-Ld	-	2430	550	910	3	N/A	1,5a
	5	745	DC	-	n/a	-40	85	Ld-Ld	-	2430	745	910	3	N/A	1,5a
VDRH(##)10S625[%], 625V-E 584	5	625	AC	1	n/a	-40	85	Ld-Ld	-	2760	625	1000	3	N/A	1,5a
	5	825	DC	-	n/a	-40	85	Ld-Ld	-	2760	825	1000	3	N/A	1,5a
VDRH(##)10S680[%], 680V-E 584	5	680	AC	1	n/a	-40	85	Ld-Ld	-	3010	680	1100	1.5	N/A	1,5a
	5	895	DC	-	n/a	-40	85	Ld-Ld	-	3010	895	1100	1.5	N/A	1,5a
VDRH(##)14M011[%], 11V-E 585	5	11	AC	1	n/a	-40	85	Ld-Ld	-	100	11	18	1	N/A	1,5a
	5	14	DC	-	n/a	-40	85	Ld-Ld	-	100	14	18	1	N/A	1,5a
VDRH(##)14M014[%], 14V-E 585	5	14	AC	1	n/a	-40	85	Ld-Ld	-	110	14	22	1	N/A	1,5a
	5	18	DC	-	n/a	-40	85	Ld-Ld	-	110	18	22	1	N/A	1,5a
VDRH(##)14M017[%], 17V-E 585	5	17	AC	1	n/a	-40	85	Ld-Ld	-	120	17	27	1	N/A	1,5a
	5	18	DC	-	n/a	-40	85	Ld-Ld	-	120	18	27	1	N/A	1,5a
VDRH(##)14M020[%], 20V-E 585	5	20	AC	1	n/a	-40	85	Ld-Ld	-	140	20	33	1	N/A	1,5a
	5	26	DC	-	n/a	-40	85	Ld-Ld	-	140	26	33	1	N/A	1,5a
VDRH(##)14M025[%], 25V-E 585	5	25	AC	1	n/a	-40	85	Ld-Ld	-	160	25	39	1	N/A	1,5a
	5	31	DC	-	n/a	-40	85	Ld-Ld	-	160	31	39	1	N/A	1,5a
VDRH(##)14M030[%], 30V-E 585	5	30	AC	1	n/a	-40	85	Ld-Ld	-	180	30	47	1	N/A	1,5a
	5	38	DC	-	n/a	-40	85	Ld-Ld	-	180	38	47	1	N/A	1,5a
VDRH(##)14M035[%], 35V-E 585	5	35	AC	1	n/a	-40	85	Ld-Ld	-	200	35	56	1	N/A	1,5a
	5	45	DC	-	n/a	-40	85	Ld-Ld	-	200	45	56	1	N/A	1,5a
VDRH(##)14M040[%], 40V-E 585	5	40	AC	1	n/a	-40	85	Ld-Ld	-	220	40	68	1	N/A	1,5a
	5	56	DC	-	n/a	-40	85	Ld-Ld	-	220	56	68	1	N/A	1,5a
VDRH(##)14V050[%]	5	50	AC	1	n/a	-40	85	Ld-Ld	-	310	50	82	3	N/A	1,5a
	5	65	DC	-	n/a	-40	85	Ld-Ld	-	310	65	82	3	N/A	1,5a
VDRH(##)14V060[%]	5	60	AC	1	n/a	-40	85	Ld-Ld	-	340	60	100	3	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	340	85	100	3	N/A	1,5a
VDRH(##)14V075[%]	5	75	AC	1	n/a	-40	85	Ld-Ld	-	390	75	120	3	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	390	100	120	3	N/A	1,5a
VDRH(##)14V095[%]	5	95	AC	1	n/a	-40	85	Ld-Ld	-	450	95	150	3	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	450	125	150	3	N/A	1,5a
VDRH(#)	5	115	AC	1	n/a	-40	85	Ld-Ld	-	520	115	180	3	N/A	1,5a
VDRH(#)	5	150	DC	-	n/a	-40	85	Ld-Ld	-	520	150	180	3	N/A	1,5a
VDRH(#)	5	130	AC	1	n/a	-40	85	Ld-Ld	-	580	130	200	3	N/A	1,5a
VDRH(#)	5	170	DC	-	n/a	-40	85	Ld-Ld	-	580	170	200	3	N/A	1,5a
VDRH(#)	5	140	AC	1	n/a	-40	85	Ld-Ld	-	610	140	220	3	N/A	1,5a
VDRH(#)	5	180	DC	-	n/a	-40	85	Ld-Ld	-	610	180	220	3	N/A	1,5a
VDRH(#)	5	150	AC	1	n/a	-40	85	Ld-Ld	-	650	150	240	3	N/A	1,5a
VDRH(#)	5	200	DC	-	n/a	-40	85	Ld-Ld	-	650	200	240	3	N/A	1,5a
VDRH(#)	5	175	AC	1	n/a	-40	85	Ld-Ld	-	740	175	270	3	N/A	1,5a
VDRH(#)	5	225	DC	-	n/a	-40	85	Ld-Ld	-	740	225	270	3	N/A	1,5a
VDRH(#)	5	195	AC	1	n/a	-40	85	Ld-Ld	-	810	195	300	3	N/A	1,5a
VDRH(#)	5	250	DC	-	n/a	-40	85	Ld-Ld	-	810	250	300	3	N/A	1,5a
VDRH(#)	5	210	AC	1	n/a	-40	85	Ld-Ld	-	870	210	330	3	N/A	1,5a
VDRH(#)	5	275	DC	-	n/a	-40	85	Ld-Ld	-	870	275	330	3	N/A	1,5a
VDRH(#)	5	230	AC	1	n/a	-40	85	Ld-Ld	-	940	230	360	3	N/A	1,5a
VDRH(#)	5	300	DC	-	n/a	-40	85	Ld-Ld	-	940	300	360	3	N/A	1,5a
VDRH(#)	5	250	AC	1	n/a	-40	85	Ld-Ld	-	1020	250	390	3	N/A	1,5a
VDRH(#)	5	320	DC	-	n/a	-40	85	Ld-Ld	-	1020	320	390	3	N/A	1,5a
VDRH(#)	5	275	AC	1	n/a	-40	85	Ld-Ld	-	1110	275	430	3	N/A	1,5a
VDRH(#)	5	350	DC	-	n/a	-40	85	Ld-Ld	-	1110	350	430	3	N/A	1,5a
VDRH(#)	5	300	AC	1	n/a	-40	85	Ld-Ld	-	1200	300	470	3	N/A	1,5a
VDRH(#)	5	385	DC	-	n/a	-40	85	Ld-Ld	-	1200	385	470	3	N/A	1,5a
VDRH(#)	5	320	AC	1	n/a	-40	85	Ld-Ld	-	1270	320	510	3	N/A	1,5a
VDRH(#)	5	418	DC	-	n/a	-40	85	Ld-Ld	-	1270	418	510	3	N/A	1,5a
VDRH(#)	5	350	AC	1	n/a	-40	85	Ld-Ld	-	1370	350	560	3	N/A	1,5a
VDRH(#)	5	460	DC	-	n/a	-40	85	Ld-Ld	-	1370	460	560	3	N/A	1,5a
VDRH(#)	5	385	AC	1	n/a	-40	85	Ld-Ld	-	1500	385	620	3	N/A	1,5a
VDRH(#)	5	505	DC	-	n/a	-40	85	Ld-Ld	-	1500	505	620	3	N/A	1,5a
VDRH(#)	5	420	AC	1	n/a	-40	85	Ld-Ld	-	1620	420	680	3	N/A	1,5a
VDRH(#)	5	560	DC	-	n/a	-40	85	Ld-Ld	-	1620	560	680	3	N/A	1,5a
VDRH(#)	5	460	AC	1	n/a	-40	85	Ld-Ld	-	1760	460	750	3	N/A	1,5a
VDRH(#)	5	615	DC	-	n/a	-40	85	Ld-Ld	-	1760	615	750	3	N/A	1,5a
VDRH(#)	5	485	AC	1	n/a	-40	85	Ld-Ld	-	1840	485	780	3	N/A	1,5a
VDRH(#)	5	640	DC	-	n/a	-40	85	Ld-Ld	-	1840	640	780	3	N/A	1,5a
VDRH(#)	5	510	AC	1	n/a	-40	85	Ld-Ld	-	1930	510	820	3	N/A	1,5a
VDRH(#)	5	670	DC	-	n/a	-40	85	Ld-Ld	-	1930	670	820	3	N/A	1,5a
VDRH(#)	5	550	AC	1	n/a	-40	85	Ld-Ld	-	2070	550	910	3	N/A	1,5a
VDRH(#)	5	745	DC	-	n/a	-40	85	Ld-Ld	-	2070	745	910	3	N/A	1,5a
VDRH(#)	5	625	AC	1	n/a	-40	85	Ld-Ld	-	2330	625	1000	3	N/A	1,5a
VDRH(#)	5	825	DC	-	n/a	-40	85	Ld-Ld	-	2330	825	1000	3	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
VDRH(14V680[%])	5	680	AC	1	n/a	-40	85	Ld-Ld	-	2520	680	1100	3	N/A	1,5a
	5	895	DC	-	n/a	-40	85	Ld-Ld	-	2520	680	1100	3	N/A	1,5a
VDRH(20R014[%], 14V-E 586)	5	14	AC	1	n/a	-40	85	Ld-Ld	-	150	14	22	2	N/A	1,5a
	5	18	DC	-	n/a	-40	85	Ld-Ld	-	150	18	22	2	N/A	1,5a
VDRH(20R017[%], 17V-E 586)	5	17	AC	1	n/a	-40	85	Ld-Ld	-	160	17	27	2	N/A	1,5a
	5	22	DC	-	n/a	-40	85	Ld-Ld	-	160	22	27	2	N/A	1,5a
VDRH(20R020[%], 20V-E 586)	5	20	AC	1	n/a	-40	85	Ld-Ld	-	170	20	33	2	N/A	1,5a
	5	26	DC	-	n/a	-40	85	Ld-Ld	-	170	26	33	2	N/A	1,5a
VDRH(20R025[%], 25V-E 586)	5	25	AC	1	n/a	-40	85	Ld-Ld	-	190	25	39	2	N/A	1,5a
	5	31	DC	-	n/a	-40	85	Ld-Ld	-	190	31	39	2	N/A	1,5a
VDRH(20R030[%], 30V-E 586)	5	30	AC	1	n/a	-40	85	Ld-Ld	-	210	30	47	2	N/A	1,5a
	5	38	DC	-	n/a	-40	85	Ld-Ld	-	210	38	47	2	N/A	1,5a
VDRH(20R035[%], 35V-E 586)	5	35	AC	1	n/a	-40	85	Ld-Ld	-	230	35	56	2	N/A	1,5a
	5	45	DC	-	n/a	-40	85	Ld-Ld	-	230	45	56	2	N/A	1,5a
VDRH(20R040[%], 40V-E 586)	5	40	AC	1	n/a	-40	85	Ld-Ld	-	250	40	68	2	N/A	1,5a
	5	56	DC	-	n/a	-40	85	Ld-Ld	-	250	56	68	2	N/A	1,5a
VDRH(20X060[%], 60V-E 586)	5	60	AC	1	n/a	-40	85	Ld-Ld	-	260	60	100	5	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	260	85	100	5	N/A	1,5a
VDRH(20X075[%], 75V-E 586)	5	75	AC	1	n/a	-40	85	Ld-Ld	-	310	75	120	5	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	310	100	120	5	N/A	1,5a
VDRH(20X095[%], 95V-E 586)	5	95	AC	1	n/a	-40	85	Ld-Ld	-	380	95	150	5	N/A	1,5a
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	380	125	150	5	N/A	1,5a
VDRH(20X115[%], 115V-E 586)	5	115	AC	1	n/a	-40	85	Ld-Ld	-	450	115	180	5	N/A	1,5a
	5	150	DC	-	n/a	-40	85	Ld-Ld	-	450	150	180	5	N/A	1,5a
VDRH(20X130[%], 130V-E 586)	5	130	AC	1	n/a	-40	85	Ld-Ld	-	500	130	200	5	N/A	1,5a
	5	170	DC	-	n/a	-40	85	Ld-Ld	-	500	170	200	5	N/A	1,5a
VDRH(20X140[%], 140V-E 586)	5	140	AC	1	n/a	-40	85	Ld-Ld	-	530	140	220	5	N/A	1,5a
	5	180	DC	-	n/a	-40	85	Ld-Ld	-	530	180	220	5	N/A	1,5a
VDRH(20X150[%], 150V-E 586)	5	150	AC	1	n/a	-40	85	Ld-Ld	-	570	150	240	5	N/A	1,5a
	5	200	DC	-	n/a	-40	85	Ld-Ld	-	570	200	240	5	N/A	1,5a
VDRH(20X175[%], 175V-E 586)	5	175	AC	1	n/a	-40	85	Ld-Ld	-	650	175	270	5	N/A	1,5a
	5	225	DC	-	n/a	-40	85	Ld-Ld	-	650	225	270	5	N/A	1,5a
VDRH(20X195[%], 195V-E 586)	5	195	AC	1	n/a	-40	85	Ld-Ld	-	710	195	300	5	N/A	1,5a
	5	250	DC	-	n/a	-40	85	Ld-Ld	-	710	250	300	5	N/A	1,5a
VDRH(20X210[%], 210V-E 586)	5	210	AC	1	n/a	-40	85	Ld-Ld	-	760	210	330	5	N/A	1,5a
	5	275	DC	-	n/a	-40	85	Ld-Ld	-	760	275	330	5	N/A	1,5a
VDRH(20X230[%], 230V-E 586)	5	230	AC	1	n/a	-40	85	Ld-Ld	-	830	230	360	5	N/A	1,5a
	5	300	DC	-	n/a	-40	85	Ld-Ld	-	830	300	360	5	N/A	1,5a
VDRH(20X250[%], 250V-E 586)	5	250	AC	1	n/a	-40	85	Ld-Ld	-	910	250	390	5	N/A	1,5a
	5	320	DC	-	n/a	-40	85	Ld-Ld	-	910	320	390	5	N/A	1,5a
VDRH(20X275[%], 275V-E 586)	5	275	AC	1	n/a	-40	85	Ld-Ld	-	1020	275	430	5	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
	5	350	DC	-	n/a	-40	85	Ld-Ld	-	1020	350	430	5	N/A	1,5a
VDRH(#)20X300[%], 300V-E 586	5	300	AC	1	n/a	-40	85	Ld-Ld	-	1120	300	470	5	N/A	1,5a
	5	385	DC	-	n/a	-40	85	Ld-Ld	-	1120	385	470	5	N/A	1,5a
VDRH(#)20X320[%], 320V-E 586	5	320	AC	1	n/a	-40	85	Ld-Ld	-	1200	320	510	5	N/A	1,5a
	5	418	DC	-	n/a	-40	85	Ld-Ld	-	1200	418	510	5	N/A	1,5a
VDRH(#)20X350[%], 350V-E 586	5	350	AC	1	n/a	-40	85	Ld-Ld	-	1330	350	560	5	N/A	1,5a
	5	460	DC	-	n/a	-40	85	Ld-Ld	-	1330	460	560	5	N/A	1,5a
VDRH(#)20X385[%], 385V-E 586	5	385	AC	1	n/a	-40	85	Ld-Ld	-	1470	385	620	5	N/A	1,5a
	5	505	DC	-	n/a	-40	85	Ld-Ld	-	1470	505	620	5	N/A	1,5a
VDRH(#)20X420[%], 420V-E 586	5	420	AC	1	n/a	-40	85	Ld-Ld	-	1570	420	680	5	N/A	1,5a
	5	560	DC	-	n/a	-40	85	Ld-Ld	-	1570	560	680	5	N/A	1,5a
VDRH(#)20X460[%], 460V-E 586	5	460	AC	1	n/a	-40	85	Ld-Ld	-	1690	460	750	5	N/A	1,5a
	5	615	DC	-	n/a	-40	85	Ld-Ld	-	1690	615	750	5	N/A	1,5a
VDRH(#)20X485[%], 485V-E 586	5	485	AC	1	n/a	-40	85	Ld-Ld	-	1760	485	780	5	N/A	1,5a
	5	640	DC	-	n/a	-40	85	Ld-Ld	-	1760	640	780	5	N/A	1,5a
VDRH(#)20X510[%], 510V-E 586	5	510	AC	1	n/a	-40	85	Ld-Ld	-	1830	510	820	5	N/A	1,5a
	5	670	DC	-	n/a	-40	85	Ld-Ld	-	1830	670	820	5	N/A	1,5a
VDRH(#)20X550[%], 550V-E 586	5	550	AC	1	n/a	-40	85	Ld-Ld	-	1950	550	910	5	N/A	1,5a
	5	745	DC	-	n/a	-40	85	Ld-Ld	-	1950	745	910	5	N/A	1,5a
VDRH(#)20X625[%], 625V-E 586	5	625	AC	1	n/a	-40	85	Ld-Ld	-	2160	625	1000	5	N/A	1,5a
	5	825	DC	-	n/a	-40	85	Ld-Ld	-	2160	825	1000	5	N/A	1,5a
VDRH(#)20X680[%], 680V-E 586	5	680	AC	1	n/a	-40	85	Ld-Ld	-	2320	680	1100	5	N/A	1,5a
	5	895	DC	-	n/a	-40	85	Ld-Ld	-	2320	895	1100	5	N/A	1,5a
VDRH14V275	5	275	AC	1	n/a	-	105	Ld-Ld	-	990	275	430	3	n/a	1
VDRH14V300	5	300	AC	1	n/a	-	105	Ld-Ld	-	1120	300	470	3	n/a	1
VDRH14V320	5	320	AC	1	n/a	-	105	Ld-Ld	-	1180	320	510	3	n/a	1
VDRH20x275	5	275	AC	1	n/a	-	105	Ld-Ld	-	890	275	430	3	n/a	1
VDRH20x300	5	300	AC	1	n/a	-	105	Ld-Ld	-	970	300	470	3	n/a	1
VDRH20x320	5	320	AC	1	n/a	-	105	Ld-Ld	-	1050	320	510	3	n/a	1
VDRS(#)05A014[%], 14V 592	5	14	AC	1	n/a	-40	85	Ld-Ld	-	80	14	22	0.1	N/A	1,5a
	5	18	DC	-	n/a	-40	85	Ld-Ld	-	80	18	22	0.1	N/A	1,5a
VDRS(#)05A017[%], 17V 592	5	17	AC	1	n/a	-40	85	Ld-Ld	-	90	17	27	0.1	N/A	1,5a
	5	22	DC	-	n/a	-40	85	Ld-Ld	-	90	22	27	0.1	N/A	1,5a
VDRS(#)05A020[%], 20V 592	5	20	AC	1	n/a	-40	85	Ld-Ld	-	100	20	33	0.1	N/A	1,5a
	5	26	DC	-	n/a	-40	85	Ld-Ld	-	100	26	33	0.1	N/A	1,5a
VDRS(#)05A025[%], 25V 592	5	25	AC	1	n/a	-40	85	Ld-Ld	-	120	25	39	0.1	N/A	1,5a
	5	31	DC	-	n/a	-40	85	Ld-Ld	-	120	31	39	0.1	N/A	1,5a
VDRS(#)05A030[%], 30V 592	5	30	AC	1	n/a	-40	85	Ld-Ld	-	140	30	47	0.1	N/A	1,5a
	5	38	DC	-	n/a	-40	85	Ld-Ld	-	140	38	47	0.1	N/A	1,5a
VDRS(#)05A035[%], 35V 592	5	35	AC	1	n/a	-40	85	Ld-Ld	-	160	35	56	0.1	N/A	1,5a
	5	45	DC	-	n/a	-40	85	Ld-Ld	-	160	45	56	0.1	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
VDRS(#)05A040[%], 40V 592	5	40	AC	1	n/a	-40	85	Ld-Ld	-	180	40	68	0.1	N/A	1,5a
	5	56	DC	-	n/a	-40	85	Ld-Ld	-	180	56	68	0.1	N/A	1,5a
VDRS(#)05C050[%], 50V 592	5	50	AC	1	n/a	-40	85	Ld-Ld	-	170	50	82	0.1	N/A	1,5a
	5	65	DC	-	n/a	-40	85	Ld-Ld	-	170	65	82	0.1	N/A	1,5a
VDRS(#)05C060[%], 60V 592	5	60	AC	1	n/a	-40	85	Ld-Ld	-	200	60	100	0.1	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	200	85	100	0.1	N/A	1,5a
VDRS(#)05C075[%], 75V 592	5	75	AC	1	n/a	-40	85	Ld-Ld	-	250	75	120	0.1	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	250	100	120	0.1	N/A	1,5a
VDRS(#)05C095[%], 95V 592	5	95	AC	1	n/a	-40	85	Ld-Ld	-	310	95	150	0.1	N/A	1,5a
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	310	125	150	0.1	N/A	1,5a
VDRS(#)05C130[%], 130V 592	5	130	AC	1	n/a	-40	85	Ld-Ld	-	390	130	200	0.1	N/A	1,5a
	5	170	DC	-	n/a	-40	85	Ld-Ld	-	390	170	200	0.1	N/A	1,5a
VDRS(#)05C140[%], 140V 592	5	140	AC	1	n/a	-40	85	Ld-Ld	-	420	140	220	0.1	N/A	1,5a
	5	180	DC	-	n/a	-40	85	Ld-Ld	-	420	180	220	0.1	N/A	1,5a
VDRS(#)05C150[%], 150V 592	5	150	AC	1	n/a	-40	85	Ld-Ld	-	440	150	240	0.1	N/A	1,5a
	5	200	DC	-	n/a	-40	85	Ld-Ld	-	440	200	240	0.1	N/A	1,5a
VDRS(#)05C175[%], 175V 592	5	175	AC	1	n/a	-40	85	Ld-Ld	-	510	175	270	0.1	N/A	1,5a
	5	225	DC	-	n/a	-40	85	Ld-Ld	-	510	225	270	0.1	N/A	1,5a
VDRS(#)05C230[%], 230V 592	5	230	AC	1	n/a	-40	85	Ld-Ld	-	660	230	360	0.1	N/A	1,5a
	5	300	DC	-	n/a	-40	85	Ld-Ld	-	660	300	360	0.1	N/A	1,5a
VDRS(#)05C250[%], 250V 592	5	250	AC	1	n/a	-40	85	Ld-Ld	-	710	250	390	0.1	N/A	1,5a
	5	320	DC	-	n/a	-40	85	Ld-Ld	-	710	320	390	0.1	N/A	1,5a
VDRS(#)05C275[%], 275V 592	5	275	AC	1	n/a	-40	85	Ld-Ld	-	780	275	430	0.1	N/A	1,5a
	5	350	DC	-	n/a	-40	85	Ld-Ld	-	780	350	430	0.1	N/A	1,5a
VDRS(#)05C300[%], 300V 592	5	300	AC	1	n/a	-40	85	Ld-Ld	-	850	300	470	0.1	N/A	1,5a
	5	375	DC	-	n/a	-40	85	Ld-Ld	-	850	375	470	0.1	N/A	1,5a
VDRS(#)05C320[%], 320V 592	5	320	AC	1	n/a	-40	85	Ld-Ld	-	920	320	510	0.1	N/A	1,5a
	5	415	DC	-	n/a	-40	85	Ld-Ld	-	920	415	510	0.1	N/A	1,5a
VDRS(#)05C350[%], 350V 592	5	350	AC	1	n/a	-40	85	Ld-Ld	-	1020	350	560	0.1	N/A	1,5a
	5	460	DC	-	n/a	-40	85	Ld-Ld	-	1020	460	560	0.1	N/A	1,5a
VDRS(#)05C385[%], 385V 592	5	385	AC	1	n/a	-40	85	Ld-Ld	-	1140	385	620	0.1	N/A	1,5a
	5	505	DC	-	n/a	-40	85	Ld-Ld	-	1140	505	620	0.1	N/A	1,5a
VDRS(#)05C420[%], 420V 592	5	420	AC	1	n/a	-40	85	Ld-Ld	-	1260	420	680	0.1	N/A	1,5a
	5	560	DC	-	n/a	-40	85	Ld-Ld	-	1260	560	680	0.1	N/A	1,5a
VDRS(#)05C460[%], 460V 592	5	460	AC	1	n/a	-40	85	Ld-Ld	-	1390	460	750	0.1	N/A	1,5a
	5	615	DC	-	n/a	-40	85	Ld-Ld	-	1390	615	750	0.1	N/A	1,5a
VDRS(#)07B014[%], 14V 593	5	14	AC	1	n/a	-40	85	Ld-Ld	-	70	14	22	0.15	N/A	1,5a
	5	18	DC	-	n/a	-40	85	Ld-Ld	-	70	18	22	0.15	N/A	1,5a
VDRS(#)07B017[%], 17V 593	5	17	AC	1	n/a	-40	85	Ld-Ld	-	80	17	27	0.15	N/A	1,5a
	5	22	DC	-	n/a	-40	85	Ld-Ld	-	80	22	27	0.15	N/A	1,5a
VDRS(#)07B020[%], 20V 593	5	20	AC	1	n/a	-40	85	Ld-Ld	-	90	20	33	0.15	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
	5	26	DC	-	n/a	-40	85	Ld-Ld	-	90	26	33	0.15	N/A	1,5a
VDRS(#)07B025[%], 25V 593	5	25	AC	1	n/a	-40	85	Ld-Ld	-	110	25	39	0.15	N/A	1,5a
	5	31	DC	-	n/a	-40	85	Ld-Ld	-	110	31	39	0.15	N/A	1,5a
VDRS(#)07B030[%], 30V 593	5	30	AC	1	n/a	-40	85	Ld-Ld	-	130	30	47	0.15	N/A	1,5a
	5	38	DC	-	n/a	-40	85	Ld-Ld	-	130	38	47	0.15	N/A	1,5a
VDRS(#)07B035[%], 35V 593	5	35	AC	1	n/a	-40	85	Ld-Ld	-	150	35	56	0.15	N/A	1,5a
	5	45	DC	-	n/a	-40	85	Ld-Ld	-	150	45	56	0.15	N/A	1,5a
VDRS(#)07B040[%], 40V 593	5	40	AC	1	n/a	-40	85	Ld-Ld	-	190	40	68	0.15	N/A	1,5a
	5	56	DC	-	n/a	-40	85	Ld-Ld	-	190	56	68	0.15	N/A	1,5a
VDRS(#)07H050[%], 50V 593	5	50	AC	1	n/a	-40	85	Ld-Ld	-	210	50	82	0.5	N/A	1,5a
	5	65	DC	-	n/a	-40	85	Ld-Ld	-	210	65	82	0.5	N/A	1,5a
VDRS(#)07H060[%], 60V 593	5	60	AC	1	n/a	-40	85	Ld-Ld	-	240	60	100	0.5	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	240	85	100	0.5	N/A	1,5a
VDRS(#)07H075[%], 75V 593	5	75	AC	1	n/a	-40	85	Ld-Ld	-	290	75	120	0.5	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	290	100	120	0.5	N/A	1,5a
VDRS(#)07H095[%], 95V 593	5	95	AC	1	n/a	-40	85	Ld-Ld	-	350	95	150	0.5	N/A	1,5a
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	350	125	150	0.5	N/A	1,5a
VDRS(#)07H130[%], 130V 593	5	130	AC	1	n/a	-40	85	Ld-Ld	-	460	130	200	0.5	N/A	1,5a
	5	170	DC	-	n/a	-40	85	Ld-Ld	-	460	170	200	0.5	N/A	1,5a
VDRS(#)07H140[%], 140V 593	5	140	AC	1	n/a	-40	85	Ld-Ld	-	500	140	220	0.5	N/A	1,5a
	5	180	DC	-	n/a	-40	85	Ld-Ld	-	500	180	220	0.5	N/A	1,5a
VDRS(#)07H150[%], 150V 593	5	150	AC	1	n/a	-40	85	Ld-Ld	-	530	150	240	0.5	N/A	1,5a
	5	200	DC	-	n/a	-40	85	Ld-Ld	-	530	200	240	0.5	N/A	1,5a
VDRS(#)07H175[%], 175V 593	5	175	AC	1	n/a	-40	85	Ld-Ld	-	620	175	270	0.5	N/A	1,5a
	5	225	DC	-	n/a	-40	85	Ld-Ld	-	620	225	270	0.5	N/A	1,5a
VDRS(#)07H230[%], 230V 593	5	230	AC	1	n/a	-40	85	Ld-Ld	-	810	230	360	0.5	N/A	1,5a
	5	300	DC	-	n/a	-40	85	Ld-Ld	-	810	300	360	0.5	N/A	1,5a
VDRS(#)07H250[%], 250V 593	5	250	AC	1	n/a	-40	85	Ld-Ld	-	880	250	390	0.5	N/A	1,5a
	5	320	DC	-	n/a	-40	85	Ld-Ld	-	880	320	390	0.5	N/A	1,5a
VDRS(#)07H275[%], 275V 593	5	275	AC	1	n/a	-40	85	Ld-Ld	-	970	275	430	0.5	N/A	1,5a
	5	350	DC	-	n/a	-40	85	Ld-Ld	-	970	350	430	0.5	N/A	1,5a
VDRS(#)07H300[%], 300V 593	5	300	AC	1	n/a	-40	85	Ld-Ld	-	1060	300	470	0.5	N/A	1,5a
	5	385	DC	-	n/a	-40	85	Ld-Ld	-	1060	385	470	0.5	N/A	1,5a
VDRS(#)07H320[%], 320V 593	5	320	AC	1	n/a	-40	85	Ld-Ld	-	1110	320	510	0.5	N/A	1,5a
	5	418	DC	-	n/a	-40	85	Ld-Ld	-	1110	418	510	0.5	N/A	1,5a
VDRS(#)07H350[%], 350V 593	5	350	AC	1	n/a	-40	85	Ld-Ld	-	1180	350	560	0.5	N/A	1,5a
	5	460	DC	-	n/a	-40	85	Ld-Ld	-	1180	460	560	0.5	N/A	1,5a
VDRS(#)07H385[%], 385V 593	5	385	AC	1	n/a	-40	85	Ld-Ld	-	1260	385	620	0.5	N/A	1,5a
	5	505	DC	-	n/a	-40	85	Ld-Ld	-	1260	505	620	0.5	N/A	1,5a
VDRS(#)07H420[%], 420V 593	5	420	AC	1	n/a	-40	85	Ld-Ld	-	1340	420	680	0.5	N/A	1,5a
	5	560	DC	-	n/a	-40	85	Ld-Ld	-	1340	560	680	0.5	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
VDRS(#)07H460[%], 460V 593	5	460	AC	1	n/a	-40	85	Ld-Ld	-	1430	460	750	0.5	N/A	1,5a
	5	615	DC	-	n/a	-40	85	Ld-Ld	-	1430	615	750	0.5	N/A	1,5a
VDRS(#)10D014[%], 14V 594	5	14	AC	1	n/a	-40	85	Ld-Ld	-	80	14	22	0.25	N/A	1,5a
	5	18	DC	-	n/a	-40	85	Ld-Ld	-	80	18	22	0.25	N/A	1,5a
VDRS(#)10D017[%], 17V 594	5	17	AC	1	n/a	-40	85	Ld-Ld	-	90	17	27	0.25	N/A	1,5a
	5	22	DC	-	n/a	-40	85	Ld-Ld	-	90	22	27	0.25	N/A	1,5a
VDRS(#)10D020[%], 20V 594	5	20	AC	1	n/a	-40	85	Ld-Ld	-	100	20	33	0.25	N/A	1,5a
	5	26	DC	-	n/a	-40	85	Ld-Ld	-	100	26	33	0.25	N/A	1,5a
VDRS(#)10D025[%], 25V 594	5	25	AC	1	n/a	-40	85	Ld-Ld	-	120	25	39	0.25	N/A	1,5a
	5	31	DC	-	n/a	-40	85	Ld-Ld	-	120	31	39	0.25	N/A	1,5a
VDRS(#)10D030[%], 30V 594	5	30	AC	1	n/a	-40	85	Ld-Ld	-	140	30	47	0.25	N/A	1,5a
	5	38	DC	-	n/a	-40	85	Ld-Ld	-	140	38	47	0.25	N/A	1,5a
VDRS(#)10D035[%], 35V 594	5	35	AC	1	n/a	-40	85	Ld-Ld	-	150	35	56	0.25	N/A	1,5a
	5	45	DC	-	n/a	-40	85	Ld-Ld	-	150	45	56	0.25	N/A	1,5a
VDRS(#)10D040[%], 40V 594	5	40	AC	1	n/a	-40	85	Ld-Ld	-	170	40	68	0.25	N/A	1,5a
	5	56	DC	-	n/a	-40	85	Ld-Ld	-	170	56	68	0.25	N/A	1,5a
VDRS(#)10P050[%], 50V 594	5	50	AC	1	n/a	-40	85	Ld-Ld	-	250	50	82	1.5	N/A	1,5a
	5	65	DC	-	n/a	-40	85	Ld-Ld	-	250	65	82	1.5	N/A	1,5a
VDRS(#)10P060[%], 60V 594	5	60	AC	1	n/a	-40	85	Ld-Ld	-	90	60	100	1.5	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	90	85	100	1.5	N/A	1,5a
VDRS(#)10P075[%], 75V 594	5	75	AC	1	n/a	-40	85	Ld-Ld	-	130	75	120	1.5	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	130	100	120	1.5	N/A	1,5a
VDRS(#)10P095[%], 95V 594	5	95	AC	1	n/a	-40	85	Ld-Ld	-	500	95	150	1.5	N/A	1,5a
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	500	125	150	1.5	N/A	1,5a
VDRS(#)10P130[%], 130V 594	5	130	AC	1	n/a	-40	85	Ld-Ld	-	630	130	200	1.5	N/A	1,5a
	5	170	DC	-	n/a	-40	85	Ld-Ld	-	630	170	200	1.5	N/A	1,5a
VDRS(#)10P140[%], 140V 594	5	140	AC	1	n/a	-40	85	Ld-Ld	-	660	140	220	1.5	N/A	1,5a
	5	180	DC	-	n/a	-40	85	Ld-Ld	-	660	180	220	1.5	N/A	1,5a
VDRS(#)10P150[%], 150V 594	5	150	AC	1	n/a	-40	85	Ld-Ld	-	690	150	240	1.5	N/A	1,5a
	5	200	DC	-	n/a	-40	85	Ld-Ld	-	690	200	240	1.5	N/A	1,5a
VDRS(#)10P175[%], 175V 594	5	175	AC	1	n/a	-40	85	Ld-Ld	-	770	175	270	1.5	N/A	1,5a
	5	225	DC	-	n/a	-40	85	Ld-Ld	-	770	225	270	1.5	N/A	1,5a
VDRS(#)10P230[%], 230V 594	5	230	AC	1	n/a	-40	85	Ld-Ld	-	950	230	360	1.5	N/A	1,5a
	5	300	DC	-	n/a	-40	85	Ld-Ld	-	950	300	360	1.5	N/A	1,5a
VDRS(#)10P250[%], 250V 594	5	250	AC	1	n/a	-40	85	Ld-Ld	-	1010	250	390	1.5	N/A	1,5a
	5	320	DC	-	n/a	-40	85	Ld-Ld	-	1010	320	390	1.5	N/A	1,5a
VDRS(#)10P275[%], 275V 594	5	275	AC	1	n/a	-40	85	Ld-Ld	-	1090	275	430	1.5	N/A	1,5a
	5	350	DC	-	n/a	-40	85	Ld-Ld	-	1090	350	430	1.5	N/A	1,5a
VDRS(#)10P300[%], 300V 594	5	300	AC	1	n/a	-40	85	Ld-Ld	-	1170	300	470	1.5	N/A	1,5a
	5	385	DC	-	n/a	-40	85	Ld-Ld	-	1170	385	470	1.5	N/A	1,5a
VDRS(#)10P320[%], 320V 594	5	320	AC	1	n/a	-40	85	Ld-Ld	-	1240	320	510	1.5	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
	5	418	DC	-	n/a	-40	85	Ld-Ld	-	1240	418	510	1.5	N/A	1,5a
<b>VDRS(#)</b> 10P350[%], 350V 594	5	350	AC	1	n/a	-40	85	Ld-Ld	-	1360	350	560	1.5	N/A	1,5a
	5	460	DC	-	n/a	-40	85	Ld-Ld	-	1360	460	560	1.5	N/A	1,5a
<b>VDRS(#)</b> 10P385[%], 385V 594	5	385	AC	1	n/a	-40	85	Ld-Ld	-	1490	385	620	1.5	N/A	1,5a
	5	505	DC	-	n/a	-40	85	Ld-Ld	-	1490	505	620	1.5	N/A	1,5a
<b>VDRS(#)</b> 10P420[%], 420V 594	5	420	AC	1	n/a	-40	85	Ld-Ld	-	1620	420	680	1.5	N/A	1,5a
	5	560	DC	-	n/a	-40	85	Ld-Ld	-	1620	560	680	1.5	N/A	1,5a
<b>VDRS(#)</b> 10P460[%], 460V 594	5	460	AC	1	n/a	-40	85	Ld-Ld	-	1770	460	750	1.5	N/A	1,5a
	5	615	DC	-	n/a	-40	85	Ld-Ld	-	1770	615	750	1.5	N/A	1,5a
<b>VDRS(#)</b> 10P510[%], 510V 594	5	510	AC	1	n/a	-40	85	Ld-Ld	-	1950	510	820	1.5	N/A	1,5a
	5	670	DC	-	n/a	-40	85	Ld-Ld	-	1950	670	820	1.5	N/A	1,5a
<b>VDRS(#)</b> 10P550[%], 550V 594	5	550	AC	1	n/a	-40	85	Ld-Ld	-	2100	550	910	1.5	N/A	1,5a
	5	745	DC	-	n/a	-40	85	Ld-Ld	-	2100	745	910	1.5	N/A	1,5a
<b>VDRS(#)</b> 14G014[%], 14V 595	5	14	AC	1	n/a	-40	85	Ld-Ld	-	110	14	22	1	N/A	1,5a
	5	18	DC	-	n/a	-40	85	Ld-Ld	-	110	18	22	1	N/A	1,5a
<b>VDRS(#)</b> 14G017[%], 17V 595	5	17	AC	1	n/a	-40	85	Ld-Ld	-	120	17	27	1	N/A	1,5a
	5	22	DC	-	n/a	-40	85	Ld-Ld	-	120	22	27	1	N/A	1,5a
<b>VDRS(#)</b> 14G020[%], 20V 595	5	20	AC	1	n/a	-40	85	Ld-Ld	-	140	20	33	1	N/A	1,5a
	5	26	DC	-	n/a	-40	85	Ld-Ld	-	140	26	33	1	N/A	1,5a
<b>VDRS(#)</b> 14G025[%], 25V 595	5	25	AC	1	n/a	-40	85	Ld-Ld	-	160	25	39	1	N/A	1,5a
	5	31	DC	-	n/a	-40	85	Ld-Ld	-	160	31	39	1	N/A	1,5a
<b>VDRS(#)</b> 14G030[%], 30V 595	5	30	AC	1	n/a	-40	85	Ld-Ld	-	180	30	47	1	N/A	1,5a
	5	38	DC	-	n/a	-40	85	Ld-Ld	-	180	38	47	1	N/A	1,5a
<b>VDRS(#)</b> 14G035[%], 35V 595	5	35	AC	1	n/a	-40	85	Ld-Ld	-	200	35	56	1	N/A	1,5a
	5	45	DC	-	n/a	-40	85	Ld-Ld	-	200	45	56	1	N/A	1,5a
<b>VDRS(#)</b> 14G040[%], 40V 595	5	40	AC	1	n/a	-40	85	Ld-Ld	-	220	40	68	1	N/A	1,5a
	5	56	DC	-	n/a	-40	85	Ld-Ld	-	220	56	68	1	N/A	1,5a
<b>VDRS(#)</b> 14T050[%], 50V 595	5	50	AC	1	n/a	-40	85	Ld-Ld	-	310	50	82	3	N/A	1,5a
	5	65	DC	-	n/a	-40	85	Ld-Ld	-	310	65	82	3	N/A	1,5a
<b>VDRS(#)</b> 14T060[%], 60V 595	5	60	AC	1	n/a	-40	85	Ld-Ld	-	340	60	100	3	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	340	85	100	3	N/A	1,5a
<b>VDRS(#)</b> 14T075[%], 75V 595	5	75	AC	1	n/a	-40	85	Ld-Ld	-	390	75	120	3	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	390	100	120	3	N/A	1,5a
<b>VDRS(#)</b> 14T095[%], 95V 595	5	95	AC	1	n/a	-40	85	Ld-Ld	-	450	95	150	3	N/A	1,5a
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	450	125	150	3	N/A	1,5a
<b>VDRS(#)</b> 14T130[%], 130V 595	5	130	AC	1	n/a	-40	85	Ld-Ld	-	580	130	200	3	N/A	1,5a
	5	170	DC	-	n/a	-40	85	Ld-Ld	-	580	170	200	3	N/A	1,5a
<b>VDRS(#)</b> 14T140[%], 140V 595	5	140	AC	1	n/a	-40	85	Ld-Ld	-	610	140	220	3	N/A	1,5a
	5	180	DC	-	n/a	-40	85	Ld-Ld	-	610	180	220	3	N/A	1,5a
<b>VDRS(#)</b> 14T150[%], 150V 595	5	150	AC	1	n/a	-40	85	Ld-Ld	-	650	150	240	3	N/A	1,5a
	5	200	DC	-	n/a	-40	85	Ld-Ld	-	650	200	240	3	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
VDRS(##)14T175[%], 175V 595	5	175	AC	1	n/a	-40	85	Ld-Ld	-	740	175	270	3	N/A	1,5a
	5	225	DC	-	n/a	-40	85	Ld-Ld	-	740	225	270	3	N/A	1,5a
VDRS(##)14T230[%], 230V 595	5	230	AC	1	n/a	-40	85	Ld-Ld	-	940	230	360	3	N/A	1,5a
	5	300	DC	-	n/a	-40	85	Ld-Ld	-	940	300	360	3	N/A	1,5a
VDRS(##)14T250[%], 250V 595	5	250	AC	1	n/a	-40	85	Ld-Ld	-	1020	250	390	3	N/A	1,5a
	5	320	DC	-	n/a	-40	85	Ld-Ld	-	1020	320	390	3	N/A	1,5a
VDRS(##)14T275[%], 275V 595	5	275	AC	1	n/a	-40	85	Ld-Ld	-	1110	275	430	3	N/A	1,5a
	5	350	DC	-	n/a	-40	85	Ld-Ld	-	1110	350	430	3	N/A	1,5a
VDRS(##)14T300[%], 300V 595	5	300	AC	1	n/a	-40	85	Ld-Ld	-	1200	300	470	3	N/A	1,5a
	5	385	DC	-	n/a	-40	85	Ld-Ld	-	1200	385	470	3	N/A	1,5a
VDRS(##)14T320[%], 320V 595	5	320	AC	1	n/a	-40	85	Ld-Ld	-	1270	320	510	3	N/A	1,5a
	5	418	DC	-	n/a	-40	85	Ld-Ld	-	1270	418	510	3	N/A	1,5a
VDRS(##)14T350[%], 350V 595	5	350	AC	1	n/a	-40	85	Ld-Ld	-	1370	350	560	3	N/A	1,5a
	5	460	DC	-	n/a	-40	85	Ld-Ld	-	1370	460	560	3	N/A	1,5a
VDRS(##)14T385[%], 385V 595	5	385	AC	1	n/a	-40	85	Ld-Ld	-	1500	385	620	3	N/A	1,5a
	5	505	DC	-	n/a	-40	85	Ld-Ld	-	1500	505	620	3	N/A	1,5a
VDRS(##)14T420[%], 420V 595	5	420	AC	1	n/a	-40	85	Ld-Ld	-	1620	420	680	3	N/A	1,5a
	5	560	DC	-	n/a	-40	85	Ld-Ld	-	1620	560	680	3	N/A	1,5a
VDRS(##)14T460[%], 460V 595	5	460	AC	1	n/a	-40	85	Ld-Ld	-	1760	460	750	3	N/A	1,5a
	5	615	DC	-	n/a	-40	85	Ld-Ld	-	1760	615	750	3	N/A	1,5a
VDRS(##)14T510[%], 510V 595	5	510	AC	1	n/a	-40	85	Ld-Ld	-	1930	510	820	3	N/A	1,5a
	5	670	DC	-	n/a	-40	85	Ld-Ld	-	1930	670	820	3	N/A	1,5a
VDRS(##)14T550[%], 550V 595	5	550	AC	1	n/a	-40	85	Ld-Ld	-	2070	550	910	3	N/A	1,5a
	5	745	DC	-	n/a	-40	85	Ld-Ld	-	2070	745	910	3	N/A	1,5a
VDRS(##)20M025[%], 25V 596	5	25	AC	1	n/a	-40	85	Ld-Ld	-	190	25	39	2	N/A	1,5a
	5	31	DC	-	n/a	-40	85	Ld-Ld	-	190	31	39	2	N/A	1,5a
VDRS(##)20M030[%], 30V 596	5	30	AC	1	n/a	-40	85	Ld-Ld	-	210	30	47	2	N/A	1,5a
	5	38	DC	-	n/a	-40	85	Ld-Ld	-	210	38	47	2	N/A	1,5a
VDRS(##)20M035[%], 35V 596	5	35	AC	1	n/a	-40	85	Ld-Ld	-	230	35	56	2	N/A	1,5a
	5	45	DC	-	n/a	-40	85	Ld-Ld	-	230	45	56	2	N/A	1,5a
VDRS(##)20M040[%], 40V 596	5	40	AC	1	n/a	-40	85	Ld-Ld	-	250	40	68	2	N/A	1,5a
	5	56	DC	-	n/a	-40	85	Ld-Ld	-	250	56	68	2	N/A	1,5a
VDRS(##)20W060[%], 60V 596	5	60	AC	1	n/a	-40	85	Ld-Ld	-	260	60	100	3	N/A	1,5a
	5	85	DC	-	n/a	-40	85	Ld-Ld	-	260	85	100	3	N/A	1,5a
VDRS(##)20W075[%], 75V 596	5	75	AC	1	n/a	-40	85	Ld-Ld	-	310	75	120	3	N/A	1,5a
	5	100	DC	-	n/a	-40	85	Ld-Ld	-	310	100	120	3	N/A	1,5a
VDRS(##)20W095[%], 95V 596	5	95	AC	1	n/a	-40	85	Ld-Ld	-	390	95	150	3	N/A	1,5a
	5	125	DC	-	n/a	-40	85	Ld-Ld	-	390	125	150	3	N/A	1,5a
VDRS(##)20W130[%], 130V 596	5	130	AC	1	n/a	-40	85	Ld-Ld	-	490	130	200	3	N/A	1,5a
	5	170	DC	-	n/a	-40	85	Ld-Ld	-	490	170	200	3	N/A	1,5a
VDRS(##)20W140[%], 140V 596	5	140	AC	1	n/a	-40	85	Ld-Ld	-	520	140	220	3	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
	5	180	DC	-	n/a	-40	85	Ld-Ld	-	520	180	220	3	N/A	1,5a
VDRS(#)20W150[%], 150V 596	5	150	AC	1	n/a	-40	85	Ld-Ld	-	560	150	240	3	N/A	1,5a
	5	200	DC	-	n/a	-40	85	Ld-Ld	-	560	200	240	3	N/A	1,5a
VDRS(#)20W175[%], 175V 596	5	175	AC	1	n/a	-40	85	Ld-Ld	-	640	175	270	3	N/A	1,5a
	5	225	DC	-	n/a	-40	85	Ld-Ld	-	640	225	270	3	N/A	1,5a
VDRS(#)20W230[%], 230V 596	5	230	AC	1	n/a	-40	85	Ld-Ld	-	820	230	360	3	N/A	1,5a
	5	300	DC	-	n/a	-40	85	Ld-Ld	-	820	300	360	3	N/A	1,5a
VDRS(#)20W250[%], 250V 596	5	250	AC	1	n/a	-40	85	Ld-Ld	-	890	250	390	3	N/A	1,5a
	5	320	DC	-	n/a	-40	85	Ld-Ld	-	890	320	390	3	N/A	1,5a
VDRS(#)20W275[%], 275V 596	5	275	AC	1	n/a	-40	85	Ld-Ld	-	970	275	430	3	N/A	1,5a
	5	350	DC	-	n/a	-40	85	Ld-Ld	-	970	350	430	3	N/A	1,5a
VDRS(#)20W300[%], 300V 596	5	300	AC	1	n/a	-40	85	Ld-Ld	-	1050	300	470	3	N/A	1,5a
	5	385	DC	-	n/a	-40	85	Ld-Ld	-	1050	385	470	3	N/A	1,5a
VDRS(#)20W320[%], 320V 596	5	320	AC	1	n/a	-40	85	Ld-Ld	-	1120	320	510	3	N/A	1,5a
	5	418	DC	-	n/a	-40	85	Ld-Ld	-	1120	418	510	3	N/A	1,5a
VDRS(#)20W350[%], 350V 596	5	350	AC	1	n/a	-40	85	Ld-Ld	-	1220	350	560	3	N/A	1,5a
	5	460	DC	-	n/a	-40	85	Ld-Ld	-	1220	460	560	3	N/A	1,5a
VDRS(#)20W385[%], 385V 596	5	385	AC	1	n/a	-40	85	Ld-Ld	-	1330	385	620	3	N/A	1,5a
	5	505	DC	-	n/a	-40	85	Ld-Ld	-	1330	505	620	3	N/A	1,5a
VDRS(#)20W420[%], 420V 596	5	420	AC	1	n/a	-40	85	Ld-Ld	-	1450	420	680	3	N/A	1,5a
	5	560	DC	-	n/a	-40	85	Ld-Ld	-	1450	560	680	3	N/A	1,5a
VDRS(#)20W460[%], 460V 596	5	460	AC	1	n/a	-40	85	Ld-Ld	-	1580	460	750	3	N/A	1,5a
	5	615	DC	-	n/a	-40	85	Ld-Ld	-	1580	615	750	3	N/A	1,5a
VDRS(#)20W510[%], 510V 596	5	510	AC	1	n/a	-40	85	Ld-Ld	-	1750	510	820	3	N/A	1,5a
	5	670	DC	-	n/a	-40	85	Ld-Ld	-	1750	670	820	3	N/A	1,5a
VDRS(#)20W550[%], 550V 596	5	550	AC	1	n/a	-40	85	Ld-Ld	-	1890	550	910	3	N/A	1,5a
	5	745	DC	-	n/a	-40	85	Ld-Ld	-	1890	745	910	3	N/A	1,5a
VDRS(#)20W625[%], 625V 596	5	625	AC	1	n/a	-40	85	Ld-Ld	-	2140	625	1000	3	N/A	1,5a
	5	825	DC	-	n/a	-40	85	Ld-Ld	-	2140	825	1000	3	N/A	1,5a
VDRS(#)20W680[%], 680V 596	5	680	AC	1	n/a	-40	85	Ld-Ld	-	2320	680	1100	3	N/A	1,5a
	5	895	DC	-	n/a	-40	85	Ld-Ld	-	2320	895	1100	3	N/A	1,5a
VDRUS07M115 [%]	5	115	AC	1	n/a	-40	125	Ld-Ld	-	520	115	180	1	N/A	1,5a
VDRUS07M130 [%]	5	130	AC	1	n/a	-40	125	Ld-Ld	-	570	130	200	1	N/A	1,5a
	5	170	DC	-	n/a	-40	125	Ld-Ld	-	570	170	200	1	N/A	1,5a
VDRUS07M140 [%]	5	140	AC	1	n/a	-40	125	Ld-Ld	-	610	140	220	1	N/A	1,5a
	5	180	DC	-	n/a	-40	125	Ld-Ld	-	610	180	220	1	N/A	1,5a
VDRUS07M150 [%]	5	150	AC	1	n/a	-40	125	Ld-Ld	-	640	150	240	1	N/A	1,5a
	5	200	DC	-	n/a	-40	125	Ld-Ld	-	640	200	240	1	N/A	1,5a
VDRUS07M175 [%]	5	175	AC	1	n/a	-40	125	Ld-Ld	-	730	175	270	1	N/A	1,5a
	5	225	DC	-	n/a	-40	125	Ld-Ld	-	730	225	270	1	N/A	1,5a
VDRUS07M195 [%]	5	195	AC	1	n/a	-40	125	Ld-Ld	-	800	195	300	1	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
	5	250	DC	-	n/a	-40	125	Ld-Ld	-	800	250	300	1	N/A	1,5a
VDRUS07M210 [%]	5	210	AC	1	n/a	-40	125	Ld-Ld	-	860	210	330	1	N/A	1,5a
	5	275	DC	-	n/a	-40	125	Ld-Ld	-	860	275	330	1	N/A	1,5a
VDRUS07M230 [%]	5	230	AC	1	n/a	-40	125	Ld-Ld	-	930	230	360	1	N/A	1,5a
	5	300	DC	-	n/a	-40	125	Ld-Ld	-	930	300	360	1	N/A	1,5a
VDRUS07M250 [%]	5	250	AC	1	n/a	-40	125	Ld-Ld	-	1000	250	390	1	N/A	1,5a
	5	320	DC	-	n/a	-40	125	Ld-Ld	-	1000	320	390	1	N/A	1,5a
VDRUS07M275 [%]	5	275	AC	1	n/a	-40	125	Ld-Ld	-	1090	275	430	1	N/A	1,5a
	5	350	DC	-	n/a	-40	125	Ld-Ld	-	1090	350	430	1	N/A	1,5a
VDRUS07M300 [%]	5	300	AC	1	n/a	-40	125	Ld-Ld	-	1190	300	470	1	N/A	1,5a
	5	385	DC	-	n/a	-40	125	Ld-Ld	-	1190	385	470	1	N/A	1,5a
VDRUS07M320 [%]	5	320	AC	1	n/a	-40	125	Ld-Ld	-	1260	320	510	1	N/A	1,5a
	5	418	DC	-	n/a	-40	125	Ld-Ld	-	1260	418	510	1	N/A	1,5a
VDRUS07M350 [%]	5	350	AC	1	n/a	-40	125	Ld-Ld	-	1350	350	560	1	N/A	1,5a
	5	460	DC	-	n/a	-40	125	Ld-Ld	-	1350	460	560	1	N/A	1,5a
VDRUS07M385 [%]	5	385	AC	1	n/a	-40	125	Ld-Ld	-	1460	385	620	1	N/A	1,5a
	5	505	DC	-	n/a	-40	125	Ld-Ld	-	1460	505	620	1	N/A	1,5a
VDRUS07M420 [%]	5	420	AC	1	n/a	-40	125	Ld-Ld	-	1570	420	680	1	N/A	1,5a
	5	560	DC	-	n/a	-40	125	Ld-Ld	-	1570	560	680	1	N/A	1,5a
VDRUS07M460 [%]	5	460	AC	1	n/a	-40	125	Ld-Ld	-	1690	460	750	1	N/A	1,5a
	5	615	DC	-	n/a	-40	125	Ld-Ld	-	1690	615	750	1	N/A	1,5a
VDRUS07M485 [%]	5	485	AC	1	n/a	-40	125	Ld-Ld	-	1770	485	780	1	N/A	1,5a
	5	640	DC	-	n/a	-40	125	Ld-Ld	-	1770	640	780	1	N/A	1,5a
VDRUS07M510 [%]	5	510	AC	1	n/a	-40	125	Ld-Ld	-	1850	510	820	1	N/A	1,5a
	5	670	DC	-	n/a	-40	125	Ld-Ld	-	1850	670	820	1	N/A	1,5a
VDRUS10T115 [%]	5	115	AC	1	n/a	-40	125	Ld-Ld	-	510	115	180	2	N/A	1,5a
	5	150	DC	-	n/a	-40	125	Ld-Ld	-	510	150	180	2	N/A	1,5a
VDRUS10T130 [%]	5	130	AC	1	n/a	-40	125	Ld-Ld	-	560	130	200	2	N/A	1,5a
	5	170	DC	-	n/a	-40	125	Ld-Ld	-	560	170	200	2	N/A	1,5a
VDRUS10T140 [%]	5	140	AC	1	n/a	-40	125	Ld-Ld	-	600	140	220	2	N/A	1,5a
	5	180	DC	-	n/a	-40	125	Ld-Ld	-	600	180	220	2	N/A	1,5a
VDRUS10T150 [%]	5	150	AC	1	n/a	-40	125	Ld-Ld	-	640	150	240	2	N/A	1,5a
	5	200	DC	-	n/a	-40	125	Ld-Ld	-	640	200	240	2	N/A	1,5a
VDRUS10T175 [%]	5	175	AC	1	n/a	-40	125	Ld-Ld	-	730	175	270	2	N/A	1,5a
	5	225	DC	-	n/a	-40	125	Ld-Ld	-	730	225	270	2	N/A	1,5a
VDRUS10T195 [%]	5	195	AC	1	n/a	-40	125	Ld-Ld	-	800	195	300	2	N/A	1,5a
	5	250	DC	-	n/a	-40	125	Ld-Ld	-	800	250	300	2	N/A	1,5a
VDRUS10T210 [%]	5	210	AC	1	n/a	-40	125	Ld-Ld	-	860	210	330	2	N/A	1,5a
	5	275	DC	-	n/a	-40	125	Ld-Ld	-	860	275	330	2	N/A	1,5a
VDRUS10T230 [%]	5	230	AC	1	n/a	-40	125	Ld-Ld	-	930	230	360	2	N/A	1,5a
	5	300	DC	-	n/a	-40	125	Ld-Ld	-	930	300	360	2	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
VDRUS10T250 [%]	5	250	AC	1	n/a	-40	125	Ld-Ld	-	1010	250	390	2	N/A	1,5a
	5	320	DC	-	n/a	-40	125	Ld-Ld	-	1010	320	390	2	N/A	1,5a
VDRUS10T275 [%]	5	275	AC	1	n/a	-40	125	Ld-Ld	-	1110	275	430	2	N/A	1,5a
	5	350	DC	-	n/a	-40	125	Ld-Ld	-	1110	350	430	2	N/A	1,5a
VDRUS10T300 [%]	5	300	AC	1	n/a	-40	125	Ld-Ld	-	1210	300	470	2	N/A	1,5a
	5	385	DC	-	n/a	-40	125	Ld-Ld	-	1210	385	470	2	N/A	1,5a
VDRUS10T320 [%]	5	320	AC	1	n/a	-40	125	Ld-Ld	-	1290	320	510	2	N/A	1,5a
	5	418	DC	-	n/a	-40	125	Ld-Ld	-	1290	418	510	2	N/A	1,5a
VDRUS10T350 [%]	5	350	AC	1	n/a	-40	125	Ld-Ld	-	1410	350	560	2	N/A	1,5a
	5	460	DC	-	n/a	-40	125	Ld-Ld	-	1410	460	560	2	N/A	1,5a
VDRUS10T385 [%]	5	385	AC	1	n/a	-40	125	Ld-Ld	-	1550	385	620	2	N/A	1,5a
	5	505	DC	-	n/a	-40	125	Ld-Ld	-	1550	505	620	2	N/A	1,5a
VDRUS10T420 [%]	5	420	AC	1	n/a	-40	125	Ld-Ld	-	1720	420	680	2	N/A	1,5a
	5	560	DC	-	n/a	-40	125	Ld-Ld	-	1720	560	680	2	N/A	1,5a
VDRUS10T460 [%]	5	460	AC	1	n/a	-40	125	Ld-Ld	-	1920	460	750	2	N/A	1,5a
	5	615	DC	-	n/a	-40	125	Ld-Ld	-	1920	615	750	2	N/A	1,5a
VDRUS10T485 [%]	5	485	AC	1	n/a	-40	125	Ld-Ld	-	2050	485	780	2	N/A	1,5a
	5	640	DC	-	n/a	-40	125	Ld-Ld	-	2050	640	780	2	N/A	1,5a
VDRUS10T510 [%]	5	510	AC	1	n/a	-40	125	Ld-Ld	-	2170	510	820	2	N/A	1,5a
	5	670	DC	-	n/a	-40	125	Ld-Ld	-	2170	670	820	2	N/A	1,5a
VDRUS10T550 [%]	5	550	AC	1	n/a	-40	125	Ld-Ld	-	2370	550	910	2	N/A	1,5a
	5	745	DC	-	n/a	-40	125	Ld-Ld	-	2370	745	910	2	N/A	1,5a
VDRUS10T625 [%]	5	625	AC	1	n/a	-40	125	Ld-Ld	-	2750	625	1000	2	N/A	1,5a
	5	825	DC	-	n/a	-40	125	Ld-Ld	-	2750	825	1000	2	N/A	1,5a
VDRUS10T680 [%]	5	680	AC	1	n/a	-40	125	Ld-Ld	-	3020	680	1100	2	N/A	1,5a
	5	895	DC	-	n/a	-40	125	Ld-Ld	-	3020	895	1100	2	N/A	1,5a
VDRUS14X115 [%]	5	115	AC	1	n/a	-40	125	Ld-Ld	-	520	115	180	3	N/A	1,5a
	5	150	DC	-	n/a	-40	125	Ld-Ld	-	520	150	180	3	N/A	1,5a
VDRUS14X130 [%]	5	130	AC	1	n/a	-40	125	Ld-Ld	-	580	130	200	3	N/A	1,5a
	5	170	DC	-	n/a	-40	125	Ld-Ld	-	580	170	200	3	N/A	1,5a
VDRUS14X140 [%]	5	140	AC	1	n/a	-40	125	Ld-Ld	-	610	140	220	3	N/A	1,5a
	5	180	DC	-	n/a	-40	125	Ld-Ld	-	610	180	220	3	N/A	1,5a
VDRUS14X150 [%]	5	150	AC	1	n/a	-40	125	Ld-Ld	-	650	150	240	3	N/A	1,5a
	5	200	DC	-	n/a	-40	125	Ld-Ld	-	650	200	240	3	N/A	1,5a
VDRUS14X175 [%]	5	175	AC	1	n/a	-40	125	Ld-Ld	-	740	175	270	3	N/A	1,5a
	5	225	DC	-	n/a	-40	125	Ld-Ld	-	740	225	270	3	N/A	1,5a
VDRUS14X195 [%]	5	195	AC	1	n/a	-40	125	Ld-Ld	-	810	195	300	3	N/A	1,5a
	5	250	DC	-	n/a	-40	125	Ld-Ld	-	810	250	300	3	N/A	1,5a
VDRUS14X210 [%]	5	210	AC	1	n/a	-40	125	Ld-Ld	-	870	210	330	3	N/A	1,5a
	5	275	DC	-	n/a	-40	125	Ld-Ld	-	870	275	330	3	N/A	1,5a
VDRUS14X230 [%]	5	230	AC	1	n/a	-40	125	Ld-Ld	-	940	230	360	3	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
	5	300	DC	-	n/a	-40	125	Ld-Ld	-	940	300	360	3	N/A	1,5a
VDRUS14X250 [%]	5	250	AC	1	n/a	-40	125	Ld-Ld	-	1020	250	390	3	N/A	1,5a
	5	320	DC	-	n/a	-40	125	Ld-Ld	-	1020	320	390	3	N/A	1,5a
VDRUS14X275 [%]	5	275	AC	1	n/a	-40	125	Ld-Ld	-	1110	275	430	3	N/A	1,5a
	5	350	DC	-	n/a	-40	125	Ld-Ld	-	1110	350	430	3	N/A	1,5a
VDRUS14X300 [%]	5	300	AC	1	n/a	-40	125	Ld-Ld	-	1200	300	470	3	N/A	1,5a
	5	385	DC	-	n/a	-40	125	Ld-Ld	-	1200	385	470	3	N/A	1,5a
VDRUS14X320 [%]	5	320	AC	1	n/a	-40	125	Ld-Ld	-	1270	320	510	3	N/A	1,5a
	5	418	DC	-	n/a	-40	125	Ld-Ld	-	1270	418	510	3	N/A	1,5a
VDRUS14X350 [%]	5	350	AC	1	n/a	-40	125	Ld-Ld	-	1370	350	560	3	N/A	1,5a
	5	460	DC	-	n/a	-40	125	Ld-Ld	-	1370	460	560	3	N/A	1,5a
VDRUS14X385 [%]	5	385	AC	1	n/a	-40	125	Ld-Ld	-	1500	385	620	3	N/A	1,5a
	5	505	DC	-	n/a	-40	125	Ld-Ld	-	1500	505	620	3	N/A	1,5a
VDRUS14X420 [%]	5	420	AC	1	n/a	-40	125	Ld-Ld	-	1620	420	680	3	N/A	1,5a
	5	560	DC	-	n/a	-40	125	Ld-Ld	-	1620	560	680	3	N/A	1,5a
VDRUS14X460 [%]	5	460	AC	1	n/a	-40	125	Ld-Ld	-	1760	460	750	3	N/A	1,5a
	5	615	DC	-	n/a	-40	125	Ld-Ld	-	1760	615	750	3	N/A	1,5a
VDRUS14X485 [%]	5	485	AC	1	n/a	-40	125	Ld-Ld	-	1840	485	780	3	N/A	1,5a
	5	640	DC	-	n/a	-40	125	Ld-Ld	-	1840	640	780	3	N/A	1,5a
VDRUS14X510 [%]	5	510	AC	1	n/a	-40	125	Ld-Ld	-	1930	510	820	3	N/A	1,5a
	5	670	DC	-	n/a	-40	125	Ld-Ld	-	1930	670	820	3	N/A	1,5a
VDRUS14X550 [%]	5	550	AC	1	n/a	-40	125	Ld-Ld	-	2070	550	910	3	N/A	1,5a
	5	745	DC	-	n/a	-40	125	Ld-Ld	-	2070	745	910	3	N/A	1,5a
VDRUS14X625 [%]	5	625	AC	1	n/a	-40	125	Ld-Ld	-	2330	625	1000	3	N/A	1,5a
	5	825	DC	-	n/a	-40	125	Ld-Ld	-	2330	825	1000	3	N/A	1,5a
VDRUS14X680 [%]	5	680	AC	1	n/a	-40	125	Ld-Ld	-	2520	680	1100	3	N/A	1,5a
	5	895	DC	-	n/a	-40	125	Ld-Ld	-	2520	895	1100	3	N/A	1,5a
VDRUS20Z115 [%]	5	115	AC	1	n/a	-40	125	Ld-Ld	-	450	115	180	5	N/A	1,5a
	5	150	DC	-	n/a	-40	125	Ld-Ld	-	450	150	180	5	N/A	1,5a
VDRUS20Z130 [%]	5	130	AC	1	n/a	-40	125	Ld-Ld	-	500	130	200	5	N/A	1,5a
	5	170	DC	-	n/a	-40	125	Ld-Ld	-	500	170	200	5	N/A	1,5a
VDRUS20Z140 [%]	5	140	AC	1	n/a	-40	125	Ld-Ld	-	530	140	220	5	N/A	1,5a
	5	180	DC	-	n/a	-40	125	Ld-Ld	-	530	180	220	5	N/A	1,5a
VDRUS20Z150 [%]	5	150	AC	1	n/a	-40	125	Ld-Ld	-	570	150	240	5	N/A	1,5a
	5	200	DC	-	n/a	-40	125	Ld-Ld	-	570	200	240	5	N/A	1,5a
VDRUS20Z175 [%]	5	175	AC	1	n/a	-40	125	Ld-Ld	-	650	175	270	5	N/A	1,5a
	5	225	DC	-	n/a	-40	125	Ld-Ld	-	650	225	270	5	N/A	1,5a
VDRUS20Z195 [%]	5	195	AC	1	n/a	-40	125	Ld-Ld	-	710	195	300	5	N/A	1,5a
	5	250	DC	-	n/a	-40	125	Ld-Ld	-	710	250	300	5	N/A	1,5a
VDRUS20Z210 [%]	5	210	AC	1	n/a	-40	125	Ld-Ld	-	760	210	330	5	N/A	1,5a
	5	275	DC	-	n/a	-40	125	Ld-Ld	-	760	275	330	5	N/A	1,5a

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Cat No.	SPD Type	Volts (V)	AC/DC	DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	VPR MODE	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
VDRUS20Z230 [%]	5	230	AC	1	n/a	-40	125	Ld-Ld	-	830	230	360	5	N/A	1,5a
	5	300	DC	-	n/a	-40	125	Ld-Ld	-	830	300	360	5	N/A	1,5a
VDRUS20Z250 [%]	5	250	AC	1	n/a	-40	125	Ld-Ld	-	910	250	390	5	N/A	1,5a
	5	320	DC	-	n/a	-40	125	Ld-Ld	-	910	320	390	5	N/A	1,5a
VDRUS20Z275 [%]	5	275	AC	1	n/a	-40	125	Ld-Ld	-	1020	275	430	5	N/A	1,5a
	5	350	DC	-	n/a	-40	125	Ld-Ld	-	1020	350	430	5	N/A	1,5a
VDRUS20Z300 [%]	5	300	AC	1	n/a	-40	125	Ld-Ld	-	1120	300	470	5	N/A	1,5a
	5	385	DC	-	n/a	-40	125	Ld-Ld	-	1120	385	470	5	N/A	1,5a
VDRUS20Z320 [%]	5	320	AC	1	n/a	-40	125	Ld-Ld	-	1200	320	510	5	N/A	1,5a
	5	418	DC	-	n/a	-40	125	Ld-Ld	-	1200	418	510	5	N/A	1,5a
VDRUS20Z350 [%]	5	350	AC	1	n/a	-40	125	Ld-Ld	-	1330	350	560	5	N/A	1,5a
	5	460	DC	-	n/a	-40	125	Ld-Ld	-	1330	460	560	5	N/A	1,5a
VDRUS20Z385 [%]	5	385	AC	1	n/a	-40	125	Ld-Ld	-	1470	385	620	5	N/A	1,5a
	5	505	DC	-	n/a	-40	125	Ld-Ld	-	1470	505	620	5	N/A	1,5a
VDRUS20Z420 [%]	5	420	AC	1	n/a	-40	125	Ld-Ld	-	1570	420	680	5	N/A	1,5a
	5	560	DC	-	n/a	-40	125	Ld-Ld	-	1570	560	680	5	N/A	1,5a
VDRUS20Z460 [%]	5	460	AC	1	n/a	-40	125	Ld-Ld	-	1690	460	750	5	N/A	1,5a
	5	615	DC	-	n/a	-40	125	Ld-Ld	-	1690	615	750	5	N/A	1,5a
VDRUS20Z485 [%]	5	485	AC	1	n/a	-40	125	Ld-Ld	-	1760	485	780	5	N/A	1,5a
	5	640	DC	-	n/a	-40	125	Ld-Ld	-	1760	640	780	5	N/A	1,5a
VDRUS20Z510 [%]	5	510	AC	1	n/a	-40	125	Ld-Ld	-	1830	510	820	5	N/A	1,5a
	5	670	DC	-	n/a	-40	125	Ld-Ld	-	1830	670	820	5	N/A	1,5a
VDRUS20Z550 [%]	5	550	AC	1	n/a	-40	125	Ld-Ld	-	1950	550	910	5	N/A	1,5a
	5	745	DC	-	n/a	-40	125	Ld-Ld	-	1950	745	910	5	N/A	1,5a
VDRUS20Z625 [%]	5	625	AC	1	n/a	-40	125	Ld-Ld	-	2160	625	1000	5	N/A	1,5a
	5	825	DC	-	n/a	-40	125	Ld-Ld	-	2160	825	1000	5	N/A	1,5a
VDRUS20Z680 [%]	5	680	AC	1	n/a	-40	125	Ld-Ld	-	2320	680	1100	5	N/A	1,5a
	5	895	DC	-	n/a	-40	125	Ld-Ld	-	2320	895	1100	5	N/A	1,5a

**Notes:**

1. Suitable for Factory wiring only.
2. Suitable for Field and Factory wiring.
3. Series External Impedance required, see Electrical Ratings in the Recognition report.
4. Series External Overcurrent Protection required, see Electrical Ratings in the Recognition report.
5. Body of discrete component metal-oxide varistors (MOVs) flammability:
  - a) Min. V-0 or VTM-0.
  - b) Min. V-1 or VTM-1.
  - c) Complies with IEC 60950-1, Edition 2.2, Annex Q/IEC62368-1 Annex G.8.2 needle flame testing requirements.
  - d) Complies with IEC 60065, Edition 7.2, Annex G.1.1 needle flame testing requirements.

SPDs investigated for Type 1 applications are automatically suitable for Type 2 applications and may be marked for SPD Type 1 and/or Type 2 applications. SPDs only marked "SPD Type 2" are not suitable for Type 1 applications.


Where a minimum ambient temperature is not specified, assume 0°C unless the product is marked otherwise or with an Outdoor use Environmental Rating. See Electrical Equipment for Use in Ordinary Locations (AALZ) for details regarding Environmental Ratings.

# - The S or H in the model number can be replaced by C.

Note - The suffix P, M, L or K of all models is optional, and may be followed by A thru Z for marketing purpose.



[%] - All types may be followed by additional letters and/or numbers

Marking: Company name or tradename "BC", "Vishay BCcomponents", model designation and the Recognized Component Mark,  on the product or on the smallest unit container in which the product is packaged.

Last Updated on 2020-02-13

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3/13/2019

SURGE-PROTECTIVE DEVICES - COMPONENT | UL Product iQ

UL Product iQ™



## VZCA2.GuideInfo - SURGE-PROTECTIVE DEVICES - COMPONENT

### Surge-protective Devices - Component

The devices covered under this category are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. THE FINAL ACCEPTANCE OF THE COMPONENT IS DEPENDENT UPON ITS INSTALLATION AND USE IN COMPLETE EQUIPMENT SUBMITTED TO UL.

#### GENERAL

This category covers component surge-protective devices (SPDs) designed for repeated limiting of transient-voltage surges as specified in ANSI/UL 1449, "Surge Protective Devices," on 50 or 60 Hz power circuits not exceeding 1000 V ac or 1500 V dc, including photovoltaic applications (PV SPDs) as follows:

Type 5 SPDs and Types 1, 2, 3 and 4 component assemblies are intended only for factory installation within another component, device or product.

Type 5 SPDs are discrete component surge suppressors, such as MOVs that may be mounted on a printed wiring board, connected by its leads or provided within an enclosure with mounting means and wiring terminations.

Type 4 component assemblies are assemblies consisting of one or more Type 5 SPDs together with a disconnect (integral or external) or a means of complying with the limited current tests in ANSI/UL 1449.

Type 5 SPD discrete components and Type 4 component assemblies are rated in nominal discharge current (I<sub>n</sub>), measured limiting voltage (MLV), normal operating voltage and maximum continuous operating voltage (MCOV).

Types 1, 2 and 3 component assemblies consist of a Type 4 component assembly with internal or external short-circuit protection. These types are tested and rated based on the intended application as either Type 1, 2 or 3 SPDs.

SPD accessories are components intended for factory installation in conjunction with SPD devices. Refer to the Conditions of Acceptability in the individual Reports for additional details.

See Surge-protective Devices (VZCA) for definitions of SPD Types 1, 2 and 3.

#### CONDITIONS OF ACCEPTABILITY

Unless specified otherwise in the individual Reports, consideration is to be given to the following Conditions of Acceptability when these components are employed in the end-use equipment:

1. MLV values provided are for reference only and shall not represent the VPR of an end product, as final installation, construction and internal wiring of an end product may affect the VPR.
2. Voltage Protection Rating (VPR) shall be determined in the end product where they are applicable. The VPR for Types 1, 2 or 3 component assemblies are for reference only and shall not represent the VPR of an end product, as final installation, construction and internal wiring of an end product may affect the VPR.
3. Type 4CA and Type 5 SPDs have not been subjected to the SCCR and Intermediate Current Testing as required by ANSI/UL 1449. The suitability of these devices to comply with these tests in the end-use application shall be determined. If the integral thermal responsive device opens during SCCR or Intermediate Current Testing (in the end-use application), the test shall be conducted two more times and subjected to annual follow-up testing.
4. Type 5 SPDs have not been subjected to the Limited Current Abnormal Overvoltage Test as required by ANSI/UL 1449. The suitability of these devices to comply with these tests in the end-use application shall be determined.
5. SPDs with Note 1 indicated in the electrical ratings table are intended for factory wiring only with the suitability of the connections (including spacings between factory connectors) determined in the end-use application.

SPDs with Note 2 indicated in the electrical ratings table are suitable for factory and field wiring see the individual report for wire size and torque ratings.



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6. The suitability of these components in the end-use application may necessitate additional testing in accordance with ANSI/UL 1449.

Additional Conditions of Acceptability may be included in the Report available from the manufacturer.

CODES

The following summarizes and defines the codes shown in the individual Recognitions.

<b>SPD Type</b>	
1CA	Type 1 component assembly
2CA	Type 2 component assembly
3CA	Type 3 component assembly
4CA	Type 4 component assembly
5	Type 5 SPD
<b>ACC</b>	SPD accessory for use in conjunction with an SPD device, such as an alarm, counter, base, etc.
<b>Volts (V)</b>	The rated operating voltage of the SPD
<b>PH (Phase)</b>	
1	Single phase alternating current (50/60 Hz)
1S	Split single phase alternating current (50/60 Hz)
3Y	Three-phase wye alternating current (50/60 Hz)
3H	Three-phase high-leg delta alternating current (50/60 Hz)
3D	Three-phase delta alternating current (50/60 Hz)
DC	Direct current
DC PV	Direct current for use in photovoltaic applications only
<b>Amps (A)</b>	Amperage; applies to two-port SPDs only
<b>Amb (°C) Min/Max</b>	Minimum and Maximum ambient temperature rating of SPD
<b>Mode</b>	Refers to the pair of electrical connections (terminals) between which the specified ratings apply
Ld	Lead
L	Line
N	Neutral
G	Ground
H	High leg
DC+	DC positive
DC-	DC negative
<b>VPR (Vpk): Voltage Protection Rating (VPR)</b>	Types 1, 2 and 3 component assemblies only
<b>MLV (Vpk): Measured Limited Voltage (MLV)</b>	Type 4 component assemblies and Type 5 SPDs only
<b>MCOV (V)</b>	The maximum continuous operating voltage



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<b>V<sub>n</sub> (Vdc)</b>	Nominal varistor voltage at 1 mA dc with a +/- 10% voltage tolerance; Type 4 component assemblies and Type 5 SPDs only. Type 4 component assemblies and Type 5 SPDs that would be damaged by the 1.0 mA dc current may have been subjected to the Metal Oxide Varistor Voltage Test with a dc current less than 1.0 mA. Check the Conditions of Acceptability in the individual Reports for additional details.
<b>I<sub>n</sub> (kA)</b>	Nominal discharge current rating, kA
<b>SCCR (kA)</b>	Short-circuit-current rating in kA; Type 1 and 2 component assemblies only

SPDs investigated for Type 1 applications are automatically suitable for Type 2 applications and may be marked for SPD Type 1 and/or Type 2 applications. SPDs only marked "SPD Type 2" are not suitable for Type 1 applications.


**REQUIREMENTS**

The basic standard used to investigate products in this category is ANSI/UL 1449, "Surge Protective Devices."

SPD Type 5 discrete varistors may additionally be adjunct tested to AEC-Q200 Rev D, "Stress Test Qualification for Passive Components." This specification defines the minimum stress-test-driven qualification requirements and references test conditions for qualification of passive electrical devices for use in automotive applications.

Where indicated in the individual Recognitions, the body of discrete component metal-oxide varistors (MOVs) have also been investigated for flammability with respect to the V-0, VTM-0, V-1 or VTM-1 flammability rating, for compliance with the needle flame testing requirements in Annex Q of IEC 60950-1, "Information Technology Equipment - Safety - Part 1: General Requirements," and Annex G.8.2 of IEC 62368-1, "Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements," or Annex G.1.1 of IEC 60065, "Audio, Video and Similar Electronic Apparatus - Safety Requirements."

**UL MARKING**

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