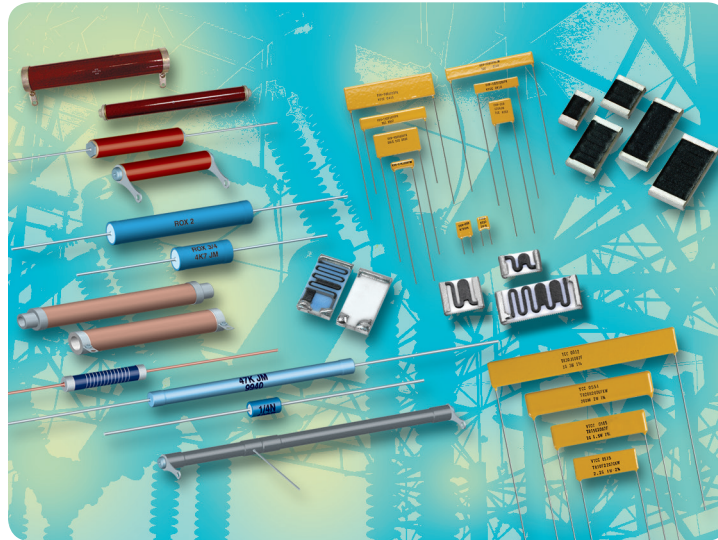


An Overview of High-Voltage Resistors from Vishay Dale



B, T	MVW, HVW, HVX
CRHV	RNX
CDHV	ROX
CRMV	RJU
D, G	RDX
FHV	TR

APPLICATIONS

- High voltage
- Voltage dividers
- Ultra-high-power, high-power
- Lighting, general and special purpose applications



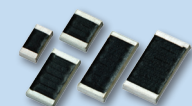

RESOURCES

- For technical questions contact ff2aresistors@vishay.com
- Sales Contacts: <http://www.vishay.com/doc?99914>



HIGH-VOLTAGE RESISTORS

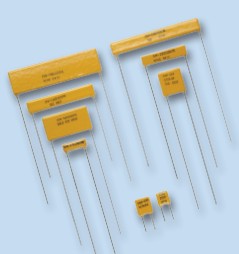

Vishay Dale

Product	Model	Power Rating (W)			Voltage Rating (V)	Value Range (Ω)	TC (ppm/°C)	Tolerance (\pm %)
		25 °C	70 °C	125 °C				
Surface-Mount High-Voltage Chip Resistors								
 CRHV	CRHV1206		0.3		1.5 kV	2 M - 8 G	± 100	1, 2, 5, 10, 20
	CRHV1210		0.45		1.75 kV	4 M - 10 G		
	CRHV2010		0.5		2 kV	6 M - 35 G		
	CRHV2510		0.6		2.5 kV	10 M - 40 G		
	CRHV2512		1.0		3 kV	12 M - 50 G		
 CDHV	CDHV2512				3 kV	20 M - 20 G		
 CRMV	CRMV1206		0.25		300 V	150 - 15 M	± 150	
	CRMV1210		0.3		400 V	300 - 20 M		
	CRMV2010		0.4		500 V	500 - 40 M		
	CRMV2510		0.45		750 V	1 k - 60 M		
	CRMV2512		0.5		800 V	1 k - 75 M		
Through-Hole High-Voltage Thick Film Resistors								
 TR	TR03	0.25			800 V	300 - 3 M	± 100	1 - 20
						300 - 25 M	± 200, ± 300	1 - 20
					2.5 kV	25 M - 250 M	± 200, ± 300	1, 2
						25 M - 2 G	± 200, ± 300	5 - 20
	TR05	0.5			4 kV	500 - 25 M	± 100	1 - 20
						3 k - 200 M	± 200, ± 300	1 - 20
					5 kV	30 M - 1 G	± 200, ± 300	1, 2
						30 M - 20 G	± 200, ± 300	5 - 20
	TR10	1			6.5 kV	21 G - 100 G	Contact factory	5 - 20
						1 k - 16 M	± 100	1 - 20
					10 kV	2 k - 120 M	± 200, ± 300	1 - 20
						20 M - 1 G	± 200, ± 300	1, 2
	TR15	1.5			12.5 kV	20 M - 15 G	± 200, ± 300	5 - 20
						16 G - 1 T	Contact factory	5 - 20
					15 kV	1.5 k - 45 M	± 100	1 - 20
						5 k - 340 M	± 200, ± 300	1 - 20
	TR20	2			17.5 kV	60 M - 1 G	± 200, ± 300	1, 2
						60 M - 35 G	± 200, ± 300	5 - 20
					20 kV	36 G - 1.5 T	Contact factory	5 - 20
						2 k - 64 M	± 100	1 - 20
	TR30	3			25 kV	8 k - 480 M	± 200, ± 300	1 - 20
						80 M - 1 G	± 200, ± 300	1, 2
					30 kV	80 M - 50 G	± 200, ± 300	5 - 20
						51 G - 2 T	Contact factory	5 - 20
					3 k - 82 M	± 100	1 - 20	
					8.5 k - 620 M	± 200, ± 300	1 - 20	
					80 M - 1 G	± 200, ± 300	1, 2	
					80 M - 60 G	± 200, ± 300	5 - 20	
					61 G - 3 T	Contact factory	5 - 20	



HIGH-VOLTAGE RESISTORS

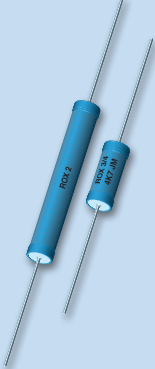
Vishay Dale

Product	Model	Power Rating (W)			Voltage Rating (V)	Value Range (Ω)	TC (ppm/°C)	Tolerance (± %)
		25 °C	70 °C	125 °C				
Through-Hole High-Voltage Thick Film Resistors (cont.)								
 <p>FHV</p>	FHV025		0.25	0.125	750 V	10 k - 100 M	± 200	1, 2, 5, 10
							10 k - 100 M	
	FHV050		0.5	0.25	1.5 kV	10 k - 500 M	± 200	
							10 k - 100 M	
	FHV075		0.25	0.125	3.75 kV	100 - 1 G	± 200	
							500 - 500 M	
	FHV100		1	0.5	7.5 kV	100 - 2 G	± 200	
							500 - 1 G	
	FHV150		1.5	0.75	11.25 kV	10 k - 2 G	± 200	
							1 M - 1 G	
FHV160		1	0.5	3.5 kV	100 - 2 G	± 200		
						500 - 1 G	± 100	
FHV200		2	1	15 kV	200 - 8 G	± 200		
						500 M - 1 G	± 100	
FHV400		2	1	7.5 kV	20 k - 2 G	± 200		
						1 M - 1 G	± 100	
FHV500		4	2	15 kV	30 k - 10 G	± 200		
						1 M - 1 G	± 100	
Through-Hole High-Voltage Metal Oxide Resistors								
 <p>RNX (Non-inductive RNX...N)</p>	RNX025	0.5	0.36	0.25	750 V	1 k - 100 M	± 200	1 standard up to 1 GΩ, 5 above 1 GΩ, 0.5 available for 50 ppm/°C only
						1 k - 100 M	± 100	
						1 M - 22 M	± 50	
	RNX038	1	0.72	0.5	1.5 kV	1 k - 1 G	± 200	
						1 k - 100 M	± 100	
						1 M - 50 M	± 50	
	RNX050	1.2	0.86	0.6	2 kV	1 k - 2 G	± 200	
						1 k - 250 M	± 100	
						1 M - 100 M	± 50	
	RNX075	2	1.44	1	3 kV	1 k - 2 G	± 200	
						1 k - 500 M	± 100	
						1 M - 100 M	± 50	
	RNX100	2.5	1.8	1.25	4 kV	1 k - 2 G	± 200	
						1 k - 500 M	± 100	
						1 M - 100 M	± 50	
	RNX125	3	2.16	1.5	5 kV	1 k - 2 G	± 200	
1 k - 500 M						± 100		
RNX150	4	2.88	2	6 kV	1 k - 2 G	± 200		
					1 k - 500 M	± 100		
RNX200	5	3.6	2.5	8 kV	1 k - 2 G	± 200		
					1 k - 500 M	± 100		



HIGH-VOLTAGE RESISTORS

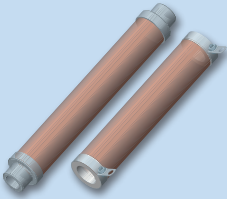
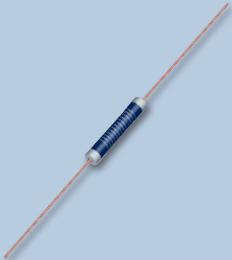
Vishay Dale

Product	Model	Power Rating (W)			Voltage Rating (V)	Value Range (Ω)	TC (ppm/ $^{\circ}$ C)	Tolerance (\pm %)
		25 $^{\circ}$ C	70 $^{\circ}$ C	125 $^{\circ}$ C				
Through-Hole High-Voltage Metal Oxide Resistors (cont.)								
ROX (Non-inductive ROX...N) 	ROX050	2	1.4	1	2 kV	1 k - 1 G	\pm 200	1, 2, 5, 10
						1 k - 100 M	\pm 100	
						1 M - 100 M	\pm 50	
	ROX075	3	2.16	1.5	5 kV	1 k - 3 G	\pm 200	
						1 k - 500 M	\pm 100	
						1 M - 100 M	\pm 50	
	ROX100	4	2.88	2	7.5 kV	1 k - 3 G	\pm 200	
						1 k - 500 M	\pm 100	
						1 M - 100 M	\pm 50	
	ROX150	5	3.6	2.5	11 kV	1 k - 3 G	\pm 200	
						1 k - 500 M	\pm 100	
						1 M - 100 M	\pm 50	
	ROX200	6	4.32	3	15 kV	1 k - 3 G	\pm 200	
						1 k - 1 G	\pm 100	
						1 M - 500 M	\pm 50	
	ROX300	10	7.2	5	22.5 kV	1 k - 3 G	\pm 200	
						1 k - 1 G	\pm 100	
						1 M - 500 M	\pm 50	
	ROX400	12	8.64	6	30 kV	1 k - 3 G	\pm 200	
						1 k - 1 G	\pm 100	
						1 M - 500 M	\pm 50	
	ROX500	16	11.52	8	37.5 kV	1 k - 3 G	\pm 200	
						1 k - 1 G	\pm 100	
						1 M - 500 M	\pm 50	
ROX600	20	14.4	10	45 kV	1 k - 3 G	\pm 200		
					1 k - 1 G	\pm 100		
					1 M - 500 M	\pm 50		



HIGH-VOLTAGE RESISTORS

Vishay Dale

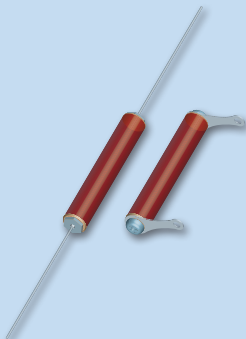

Product	Model	Power Rating (W)			Voltage Rating (V)	Value Range (Ω)	TC (ppm/°C)	Tolerance (± %)	
		25 °C	70 °C	125 °C					
Through-Hole High-Voltage Metal Oxide Resistors (cont.)									
 <p>RJU</p>	RJU040	40			25 kV	1 k - 1 G	± 200, ± 100	1, 2, 5, 10	
	RJU050	50			33 kV	1 k - 1 G			
	RJU070	70			40 kV	1 k - 1 G			
	RJU095/RJU095..1	95			35 kV	1 k - 1 G			
	RJU140/RJU140..1	140			65 kV	1 k - 1 G			
	RJU150/RJU150..1	150			40 kV	100 k - 1 G			
	RJU275/RJU275..1	275			90 kV	100 k - 1 G			
	RJU400/RJU400..1	400			125 kV	100 k - 1 G			
 <p>RDX</p>					MinR1	MaxR2	± 200, (± 100*)	1, 2, 5, 10	
	RDX2			4	15 kV	2 k			2 G
	RDX3			5	22.5 kV	3 k			10 G
	RDX4			7	30 kV	4 k			10 G
	RDX5			8	37.5 kV	5 k			10 G
	RDX6			10	45 kV	6 k			10 G
	RDX7			12	52.5 kV	7 k			10 G
	Through-Hole High-Voltage Metal Alloy Resistors								
 <p>MVW, HWV, HVX (Blue flameproof coating HVX)</p>	HVW1/2		1		3.5 kV	1 k - 25 M	± 200, (± 100*)	5, 10, 20	
	HVX1/2		1		3.5 kV	1 k - 25 M			
	MVW1/2		1		3.5 kV	1 k - 25 M			
	HWV3/4		1.5		7.5 kV	1 k - 50 M			
	HVX3/4		1.5		7.5 kV	1 k - 50 M			
	MVW3/4		1.5		7.5 kV	1 k - 50 M			

* Tolerances/TCs in parenthesis are available upon request



HIGH-VOLTAGE RESISTORS

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Product	Model	Power Rating (W)			Voltage Rating (V)	Value Range (Ω)	TC (ppm/°C)	Tolerance (± %)
		25 °C	70 °C	125 °C				
Through-Hole High-Voltage Carbon Film Resistors								
 <p>B, T</p>	BAEW	0.5			2.5 kV	50 k - 500 M	20 (5, 10, 15*)	
	BAKW	1			5 kV	100 k - 500 M		
	BBF, BBFW	1			3.5 kV	50 k - 500 M		
	BBM, BMW	2			7.5 kV	50 k - 500 M		
	BBR, BBRW	3			15 kV	100 k - 500 M		
	BBV	5			30 kV	200 k - 500 M		
	BFQ	4			15 kV	100 k - 500 M		
	BFT	6			25 kV	200 k - 500 M		
	BFW	10			40 kV	400 k - 500 M		
	TAEW	0.5			3 kV	1 M - 500 M		
	TAFW	1			5 kV	1 M - 500 M		
	TAKW	1.5			7.5 kV	1 M - 500 M		
	TAOW	2			10 kV	1 M - 500 M		
	TAQW	2.5			12.5 kV	1 M - 500 M		
	TARW	3			15 kV	1 M - 500 M		
 <p>D, G</p>	DJU	10			25 kV	50 k - 500 M		
	DPW/DPW..1	20			35 kV	100 k - 500 M		
	DPX/DPX..1	30			65 kV	100 k - 500 M		
	DVY/DVY..1	60			90 kV	400 k - 500 M		
	DZW/DZW..1	35			40 kV	300 k - 500 M		
	DZZ/DZZ..1	100			125 kV	700 k - 500 M		
	GJU	10			16 kV	1 k - 1 M		
	GPW/GPW..1	20			18 kV	1 k - 1 M		
	GPX/GPX..1	30			25 kV	1 k - 1 M		
	GVY/GVY..1	60			30 kV	1 k - 5 M		
	GZW/GZW..1	35			20 kV	1 k - 1 M		
	GZZ/GZZ..1	100			32 kV	1 k - 10 M		

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