



# ALUMINUM ELECTROLYTIC CAPACITORS

## 260 CLA-V

### SMD Aluminum Electrolytic Capacitors, Advanced Temperature Range up to 150 °C, Low Impedance, High-Vibration Capability



#### KEY BENEFITS

- Advanced temperature range: up to 150 °C
- Soldering heat resistant acc. to IPC/JEDECJ-STD-020
- Low impedance down to 0.035  $\Omega$  (at 20 °C, 100 kHz)
- High ripple current: up to 1.35 A (at 150 °C, 100 kHz)
- Long useful life: up to 2000 hours at 150 °C
- AEC-Q200-qualified
- Vibration proof up to 30 g

#### APPLICATIONS

##### General:

- Equipment operating in high-temperature environments or applications where short time overload is to be expected

##### Industrial:

- Machinery / automation, motion control, SMPS, energy-saving applications, equipment for renewable energy, variable speed pumps, control of high-temperature materials and tools

##### Automotive:

- Powertrain, chassis electronics, vehicle dynamics, ABS / ESP, controllers close to engines, turbo chargers, and brakes

#### RESOURCES

- Datasheet: 260 CLA-V - [www.vishay.com/doc?28426](http://www.vishay.com/doc?28426)
- For technical questions contact [aluminumcaps1@vishay.com](mailto:aluminumcaps1@vishay.com)
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

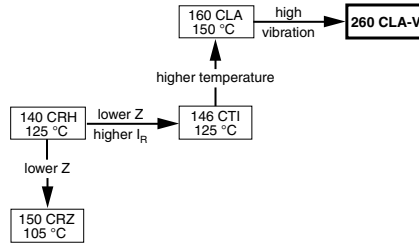


A WORLD OF  
SOLUTIONS

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QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case sizes (L x W x H in mm)	16 x 16 x 16 to 18 x 18 x 21
Rated capacitance range, C <sub>R</sub>	150 μF to 3300 μF
Tolerance on C <sub>R</sub>	± 20 %
Rated voltage range, U <sub>R</sub>	16 V to 80 V
Category temperature range	-55 °C to +150 °C
Endurance test at 150 °C	1000 h to 1500 h
Useful life at 150 °C	1500 h to 2000 h
Useful life at 40 °C 1.8 x I <sub>R</sub> applied	300 000 h to 400 000 h
Shelf life at 0 V, 150 °C	1000 h
Based on sectional specification	IEC 60384-18 / CECC 32300
Climatic category IEC 60068	55 / 150 / 56

### FEATURES

- Useful life: up to 2000 h at 150 °C
- High reliability
- Low ESR
- Polarized aluminum electrolytic capacitors, non-solid electrolyte, self healing
- SMD-version with base plate, lead (Pb)-free reflow solderable
- Charge and discharge proof, no peak current limitation
- High-temperature reflow soldering according to JEDEC® J-STD-020
- High-temperature proof
- Vibration-proof, 6-pin version up to 30 g
- AEC-Q200-qualified

### APPLICATIONS

- SMD technology, for high-temperature reflow soldering
- High-temperature environment, high peak load
- Automotive, industrial
- Smoothing, filtering, buffering

### MARKING

- Rated capacitance (in μF)
- Rated voltage (in V)
- Date code, in accordance with IEC 60062
- Black mark or “-” sign indicating the cathode (the anode is identified by bevelled edges)
- Code indicating group number (A)

### PACKAGING

Supplied in blister tape on reel

### SELECTION CHART FOR C<sub>R</sub>, U<sub>R</sub>, AND RELEVANT NOMINAL CASE SIZES (L x W x H in mm)

C <sub>R</sub> (μF)	U <sub>R</sub> (V)					
	16	25	35	50	63	80
150	→	→	→	→	→	16 x 16 x 16
220	→	→	→	→	16 x 16 x 16	18 x 18 x 16
330	→	→	→	16 x 16 x 16	18 x 18 x 16	18 x 18 x 21
470	→	→	16 x 16 x 16	18 x 18 x 16	16 x 16 x 21	-
680	→	16 x 16 x 16	18 x 18 x 16	16 x 16 x 21	18 x 18 x 21	-
1000	16 x 16 x 16	18 x 18 x 16	16 x 16 x 21	18 x 18 x 21	-	-
1500	18 x 18 x 16	16 x 16 x 21	18 x 18 x 21	-	-	-
2200	16 x 16 x 21	18 x 18 x 21	-	-	-	-
2700	18 x 18 x 21	-	-	-	-	-
3300	18 x 18 x 21	-	-	-	-	-

### EXTENDED VIBRATION SPECIFICATIONS

PARAMETER	PROCEDURE	REQUIREMENTS
Vibration improvement	From 10 g to 30 g	No visible damage; no leakage of electrolyte; marking legible ΔC/C: ± 5 % with respect to initial measurements
Vibration frequency range	10 Hz to 2 kHz	
Vibration profile	<ul style="list-style-type: none"> <li>• Constant sinus sweep</li> <li>• 3 directions</li> <li>• 8 h per direction</li> </ul>	

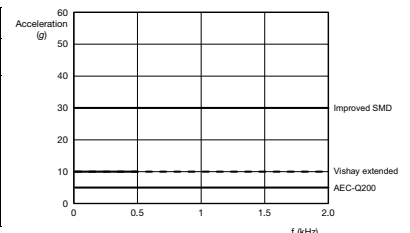


Fig. 5 - Vibration profile

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