

146 CTI SMD Aluminum Capacitors, High Ripple Current



KEY BENEFITS

- Soldering heat resistant according to IPC/JEDEC J-STD-020
- Low impedance down to 0.035 Ω at 20 °C, 100 kHz
- High ripple current: up to 1.75 A at 125 °C, 100 kHz
- Long useful life: up to 6000 hours at 125 °C
- AEC-Q200 qualified

APPLICATIONS

Industrial:

- Machinery/automation
- Motion control, drives
- SMPS for energy saving applications
- Equipment for renewable energy

Automotive:

- Engine management
- Injection, valve control
- E(H)PS
- ABS/ESP, E-brake
- Active suspension

RESOURCES

- Datasheet: 146 CTI - <http://www.vishay.com/doc?28403>
- For technical questions contact aluminumcaps1@vishay.com
- Material categorization: For definitions of compliance please see <http://www.vishay.com/doc?99912>



RoHS
COMPLIANT

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Discrete Semiconductors and Passive Components



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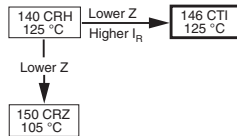


Fig. 1

QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case sizes (L x W x H in mm)	10 x 10 x 10 to 18 x 18 x 21
Rated capacitance range, C _R	22 μF to 4700 μF
Tolerance on C _R	± 20 %
Rated voltage range, U _R	16 V to 63 V
Category temperature range	- 55 °C to + 125 °C
Endurance test at 125 °C	1000 h to 5000 h
Useful life at 125 °C	1500 h to 6000 h
Useful life at 40 °C 1.8 x I _R applied	150 000 h to 400 000 h
Shelf life at 0 V, 125 °C	1000 h
Based on sectional specification	IEC 60384-18/CECC 32300
Climatic category IEC 60068	55/125/56

SELECTION CHART FOR C _R , U _R , AND RELEVANT NOMINAL CASE SIZES (L x W x H in mm)					
C _R (μF)	U _R (V)				
	16	25	35	50	63
22	→	→	→	→	10 x 10 x 10
33	→	→	→	→	10 x 10 x 10
47	→	→	10 x 10 x 10	10 x 10 x 10	10 x 10 x 10
68	→	→	→	10 x 10 x 10	10 x 10 x 10
100	→	→	10 x 10 x 10	10 x 10 x 10	10 x 10 x 12
150	→	→	10 x 10 x 10	10 x 10 x 12	12.5 x 12.5 x 13
220	→	10 x 10 x 10	10 x 10 x 12	12.5 x 12.5 x 13	12.5 x 12.5 x 16
330	10 x 10 x 10	10 x 10 x 12	12.5 x 12.5 x 13	12.5 x 12.5 x 16	16 x 16 x 16
470	10 x 10 x 12	12.5 x 12.5 x 13	12.5 x 12.5 x 16	16 x 16 x 16	16 x 16 x 16
680	12.5 x 12.5 x 13	12.5 x 12.5 x 16	16 x 16 x 16	16 x 16 x 16	18 x 18 x 16
820	→	→	→	→	16 x 16 x 21
1000	12.5 x 12.5 x 16	16 x 16 x 16	16 x 16 x 16	16 x 16 x 21 18 x 18 x 16	18 x 18 x 21
1200	→	→	18 x 18 x 16	18 x 18 x 21	-
1500	16 x 16 x 16	16 x 16 x 16	16 x 16 x 21	-	-
1800	→	→	18 x 18 x 21	-	-
2200	16 x 16 x 16	16 x 16 x 21 18 x 18 x 16	-	-	-
2700	→	18 x 18 x 21	-	-	-
3300	16 x 16 x 21 18 x 18 x 16	-	-	-	-
3900	18 x 18 x 21	-	-	-	-
4700	18 x 18 x 21	-	-	-	-

Revision 10-May-11

FEATURES

- 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
- Compliant to RoHS Directive 2011/65/EU
- Vibration proof, 4-pin version and 6-pin version
- AEC-Q200 qualified

APPLICATIONS

- SMD technology, for high temperature reflow soldering
- Industrial and professional applications
- Automotive, general industrial, telecom
- 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 (T)

PACKAGING

Supplied in blister tape on reel

