

142 RHS Radial Aluminum Capacitors for High-Temperature Standard Applications



KEY BENEFITS

- Miniaturized, high-CV products per unit volume
- Radial leads, cylindrical aluminum case, insulated with a blue sleeve
- Pressure relief for case $\varnothing D \geq 6.3$ mm
- Charge and discharge proof
- Miniaturized, high CV-product per unit volume

APPLICATIONS

- Electronic circuits in industrial and SMPS products
- Industrial, telecom infrastructure and domestic appliances
- Filtering of unwanted noise
- Smoothing of DC voltages
- Buffering of energy
- Decoupling of superimposed AC ripple

RESOURCES

- Datasheet: 142 RHS - <http://www.vishay.com/doc?28402>
- For technical questions contact aluminumcaps1@vishay.com
- Material categorization: For definitions of compliance please see <http://www.vishay.com/doc?99912>



RoHS
COMPLIANT

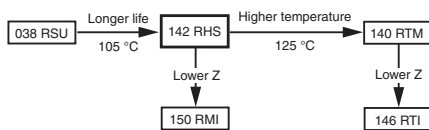
One of the World's Largest Manufacturers of
Discrete Semiconductors and Passive Components



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Fig.1 Component outline



QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case sizes (Ø D x L in mm)	5 x 11 to 18 x 40
Rated capacitance range, C _R	1 µF to 22 000 µF
Tolerance on C _R	± 20 %
Rated voltage range, U _R	10 V to 450 V
Category temperature range	- 40 °C to + 105 °C
Endurance test at 105 °C	2000 h
Useful life at 105 °C	2500 h
Useful life at 40 °C, 1.6 x I _R applied	140 000 h
Shelf life at 0 V, 105 °C	1000 h
Based on sectional specification	IEC 60384-4/EN130300
Climatic category IEC 60068	40/105/56

MARKING

The capacitors are marked (where possible) with the following information:

- Rated capacitance (in µF)
- Tolerance on rated capacitance, code letter in accordance with IEC 60062 (M for ± 20 %)

- Rated voltage (in V)
- Date code, in accordance with IEC 60062
- Code indicating factory of origin
- Name or logo of manufacturer
- Negative terminal identification
- Series number (142)

SELECTION CHART FOR C _R , U _R AND RELEVANT NOMINAL CASE SIZES (Ø D x L in mm)							
C _R (µF)	U _R (V)						
	10	16	25	35	50	63	100
1.0	→	→	→	→	→	→	5 x 11
2.2	→	→	→	→	→	→	5 x 11
4.7	→	→	→	→	→	5 x 11	6.3 x 11
10	→	→	→	→	→	5 x 11	8 x 12
22	→	→	→	→	5 x 11	6.3 x 11	8 x 12
33	→	→	→	→	6.3 x 11	6.3 x 11	10 x 12
47	→	→	5 x 11	5 x 11	8 x 12	8 x 12	10 x 16
100	→	5 x 11	6.3 x 11	6.3 x 11	10 x 12	10 x 12	10 x 20
220	→	6.3 x 11	8 x 12	8 x 12	10 x 16	10 x 16	12.5 x 25
330	6.3 x 11	8 x 12	→	10 x 12	10 x 16	10 x 20	16 x 25
470	8 x 12	10 x 12	10 x 12	10 x 16	12.5 x 20	12.5 x 20	16 x 31
1000	10 x 12	10 x 16	10 x 20	12.5 x 20	12.5 x 25	16 x 25	18 x 40
2200	10 x 20	12.5 x 20	12.5 x 25	16 x 25	16 x 35	18 x 40	-
3300	→	12.5 x 25	16 x 25	16 x 31	18 x 35	-	-
4700	12.5 x 25	16 x 25	16 x 31	18 x 35	-	-	-
6800	16 x 25	16 x 31	18 x 35	-	-	-	-
10 000	16 x 31	18 x 31	-	-	-	-	-
22 000	18 x 40	-	-	-	-	-	-

SELECTION CHART FOR C _R , U _R AND RELEVANT NOMINAL CASE SIZES (Ø D x L in mm)					
C _R (µF)	U _R (V)				
	200	250	350	400	450
1.0	5 x 11	5 x 11	6.3 x 11	6.3 x 11	8 x 12
2.2	6.3 x 11	6.3 x 11	8 x 12	8 x 12	10 x 12
4.7	8 x 12	8 x 12	10 x 12	10 x 12	10 x 16
10	10 x 12	10 x 12	10 x 16	10 x 20	12.5 x 20
22	10 x 16	10 x 20	12.5 x 20	12.5 x 25	16 x 20
33	→	12.5 x 20	→	→	16 x 25
47	12.5 x 20	12.5 x 25	16 x 25	16 x 31	16 x 35
100	16 x 25	16 x 31	18 x 35	18 x 40	-
220	18 x 35	-	-	-	-

Revision 25-Aug-09