



# ALUMINUM CAPACITORS

142 RHS MAL2142xxxxxE3



## Radial Aluminum Capacitors for High-Temperature Standard Applications

### KEY BENEFITS

- Miniaturized, high-CV products per unit volume
- RoHS-compliant electronic circuits in industrial and SMPS products
- Filtering of unwanted noise
- Smoothing of DC voltages
- Buffering of energy
- Decoupling of superimposed AC ripple

### APPLICATIONS

- Industrial equipment (SMPS, measurement and control, automation)
- Telecom infrastructure
- Domestic appliances

# Aluminum Capacitors Radial High Temperature Standard

## FEATURES

- Polarized aluminum electrolytic capacitors, non-solid electrolyte
- 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
- Compliant to RoHS directive 2002/95/EC



RoHS COMPLIANT

## APPLICATIONS

- Industrial, telecom and domestic appliances
- Decoupling, smoothing, filtering, buffering in SMPS
- Portable and mobile equipment (small size, low mass)

## MARKING

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

- Rated capacitance (in  $\mu\text{F}$ )
- Tolerance on rated capacitance, code letter in accordance with IEC 60062 (M for  $\pm 20\%$ )
- 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)

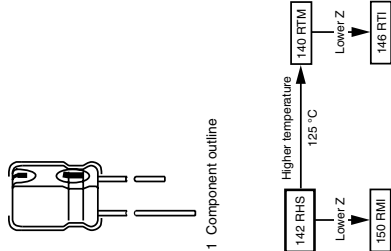


Fig. 1 Component outline

DESCRIPTION	VALUE
Nominal case sizes ( $\varnothing D \times L$ in mm)	5 x 11 to 18 x 40
Rated capacitance range, $C_R$	1 $\mu\text{F}$ to 22 000 $\mu\text{F}$
Tolerance on $C_R$	$\pm 20\%$
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 $\times I_R$ 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

SELECTION CHART FOR $C_R$ , $U_R$ AND RELEVANT NOMINAL CASE SIZES ( $\varnothing D \times L$ in mm)						
$C_R$ ( $\mu\text{F}$ )	$U_R$ (V)					
	10	16	25	35	50	63
1.0	→	→	→	→	→	→
2.2	→	→	→	→	→	→
4.7	→	→	→	→	→	→
10	→	→	→	→	→	→
22	→	→	→	→	→	→
33	→	→	→	→	→	→
47	→	→	→	→	→	→
100	→	→	→	→	→	→
220	→	→	→	→	→	→
330	→	→	→	→	→	→
470	→	→	→	→	→	→
1000	→	→	→	→	→	→
2200	→	→	→	→	→	→
3300	→	→	→	→	→	→
4700	→	→	→	→	→	→
6800	→	→	→	→	→	→
10 000	→	→	→	→	→	→
22 000	→	→	→	→	→	→

SELECTION CHART FOR $C_R$ , $U_R$ AND RELEVANT NOMINAL CASE SIZES ( $\varnothing D \times L$ in mm)						
$C_R$ ( $\mu\text{F}$ )	$U_R$ (V)					
	200	250	350	400	450	
1.0	→	→	→	→	→	
2.2	→	→	→	→	→	
4.7	→	→	→	→	→	
10	→	→	→	→	→	
22	→	→	→	→	→	
33	→	→	→	→	→	
47	→	→	→	→	→	
100	→	→	→	→	→	
220	→	→	→	→	→	

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