

BCAP0350 E270 T11



FEATURES AND BENEFITS

- Round, radial mounting design for easy surface mount assembly
- Over 500,000 duty cycles
- 10 year life capability
- Ultra-low internal resistance

APPLICATIONS

- Industrial power back up
- Portable power tools
- Renewable energy systems
- Short term UPS (uninterruptible power supply) and telecom applications

PRODUCT SPECIFICATIONS

CAPACITANCE	
Nominal capacitance	350 F
Capacitance tolerance	+20% / -0%
VOLTAGE	
Rated voltage	2.7 V DC
Surge voltage	2.85 V DC
Maximum operating voltage	2.7 V DC
Isolation voltage	N/A
RESISTANCE	
ESR, DC	3.2mΩ
Resistance tolerance	Max.
Thermal resistance (Rth)	10.9C/W
TEMPERATURE	
Operating temperature range	-40°C to +65°C
Storage temperature range	-40°C to +70°C
Temperature characteristics	
Capacitance change % at 25°C	± 5%
Internal resistance % at 25°C	± 150%
POWER	
Pd	4,300 W/kg
ENERGY	
E _{max}	5.62 Wh/kg
LIFESPAN	
Endurance After 1,000 hours application of rated voltage at 65°C.	
Capacitance change	<20% decrease
Internal resistance	<25% increase
Life test At rated voltage and 25°C.	10 years
Capacitance change	≤20% decrease
Internal resistance	≤100% increase
CYCLES	
Cycles - Capacitors cycles between specified voltage and half rated voltage under constant current at 25°C (500,000 cycles)	

Capacitance change	20% decrease
Internal resistance	100% increase
CURRENT	
Leakage current After 72 hours at 25°C. Initial leakage current can be higher.	0.3 mA
Short circuit current (I _{sc}) CAUTION: Current possible with short circuit from U _R . Do not use as an operating current.	840 A
Maximum continuous current	25 A
Maximum peak current, 1 sec	220 A
CONNECTION	
Terminal	Radial
SIZE	
Dimensions	See drawing
Volume	0.053 L
Mass	63g

MOUNTING RECOMMENDATIONS

Solder tabs to PCB. See application note for further information and slot spacing recommendations.

MARKINGS

Parts are marked with the following information: Rated capacitance, rated voltage, product number, name of manufacturer, positive and negative terminal, warning marking, serial number.

ADDITIONAL TECHNICAL INFORMATION

Capacitance and ESR, DC measured per document no. 1007239, available at www.maxwell.com.

I_c = leakage current after 72 hours at 25°C

$$I_{sc} \text{ (short circuit current)} = \frac{V_{RATED}}{ESR}$$

R_{th} = thermal resistance

$$E_{max} = \frac{\frac{1}{2} CV^2}{3,600 \times mass}$$

$$P_{max} = \frac{V^2}{4R \text{ (1kHz)} \times mass}$$

$$P_d = \frac{0.12V^2}{R \text{ (DC)} \times mass}$$

