·M·C·C·
Micro Commercial Components®

Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Extremely Low Thermal Resistance
- For Surface Mount Application And High Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance:330°C/W Junction to Ambient(Note 2)

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
BAT165WS	2G	40V	28V	40V

| Average Forward Current	$I_{F(AV)}$	0.75A	
Peak Forward Surge Current	I_{FSM}	10A	8.3ms Half Sine
Instantaneous Forward Voltage	V_F	0.29V(Typ.) 0.38V(Max.)	I_F=10mA; T_J=25 °C I_F=10mA; T_J=25 °C
		0.37V(Typ.) 0.47V(Max.)	I_F=100mA; T_J=25 °C I_F=100mA; T_J=25 °C
		0.42V(Typ.) 0.54V(Max.)	I_F=250mA; T_J=25 °C I_F=250mA; T_J=25 °C
		0.48V(Typ.) 0.64V(Max.)	I_F=500mA; T_J=25 °C I_F=500mA; T_J=25 °C
		0.54V(Typ.) 0.74V(Max.)	I_F=750mA; T_J=25 °C I_F=750mA; T_J=25 °C
Reverse Current	I_R	1.2uA(Typ.) 2uA(Typ.) 8uA(Max.) 1.5mA(Typ.)	V_R = 30V T_J=25 °C V_R = 40V T_J=25 °C V_R = 40V T_J=25 °C V_R = 40V T_J=125 °C
Typical Junction Capacitance	C_J	15pF	Measured at 1.0MHz,V_R=10V
Power Dissipation	P_D	380mW	(Note 2)

Note:
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Device mounted on an FR4 PCB, single-sided copper, tin-plated and standard footprint.

0.75 Amp Schottky Rectifier 40 Volts

SOD-323

Cathode Mark
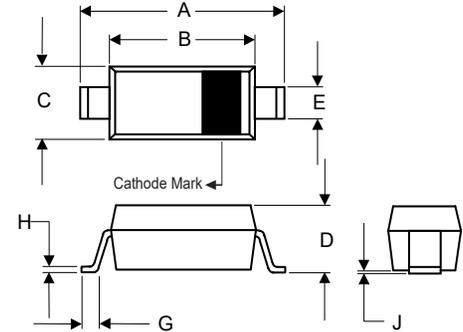
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.090	0.107	2.30	2.70	
B	0.063	0.071	1.60	1.80	
C	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
E	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
H	0.004	0.010	0.10	0.25	
J	-----	0.006	-----	0.15	

Suggested Solder Pad Layout

1.88mm
0.69mm
0.56mm
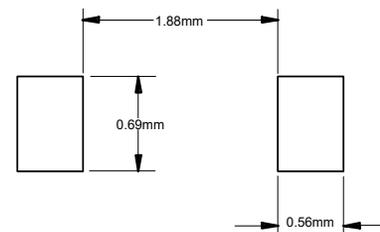
Curve Characteristics

Fig. 1 - Forward Characteristics

Forward Current (mA) vs Forward Voltage (V)
Curves labeled: 125°C, 85°C, 25°C, -40°C
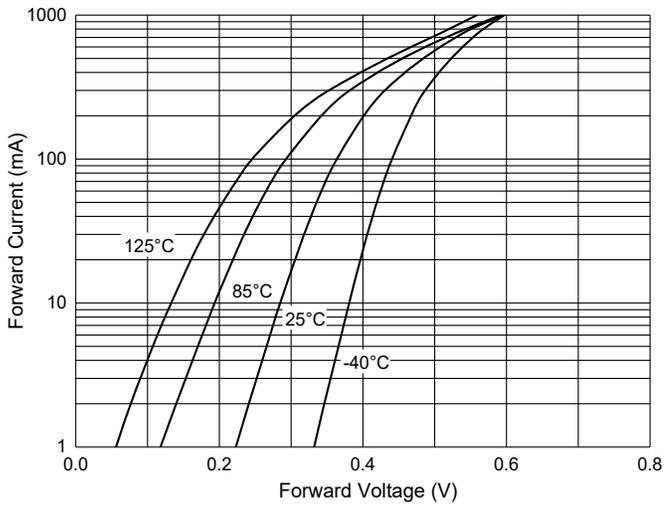
Fig. 2 - Reverse Characteristics

Reverse Current (µA) vs Reverse Voltage (V)
Curves labeled: 125°C, 85°C, 25°C
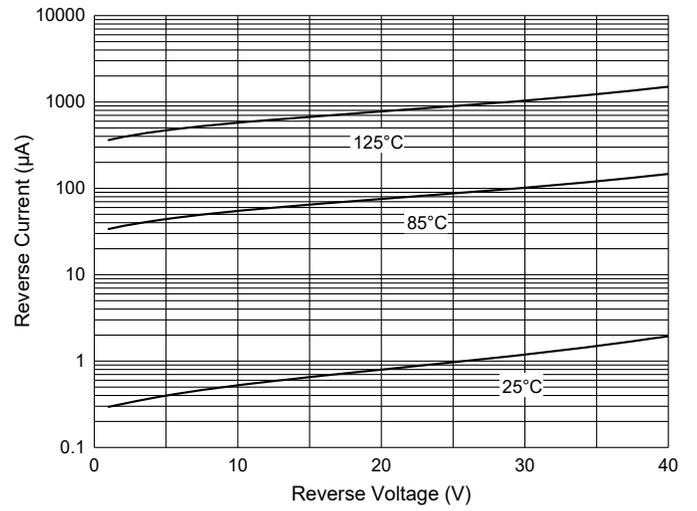
Fig. 3 - Capacitance Characteristics

Capacitance Between Terminals (pF) vs Reverse Voltage (V)
$T_a = 25°C$
$f = 1MHz$
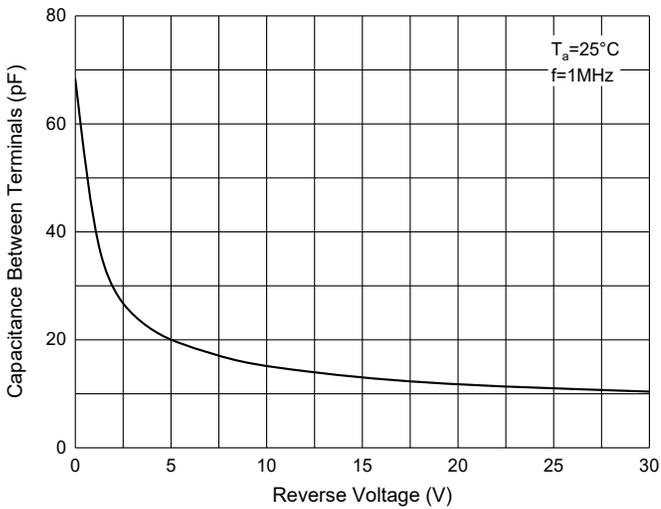
Fig. 4 - Power Derating Curve

Power Dissipation (mW) vs Ambient Temperature (°C)
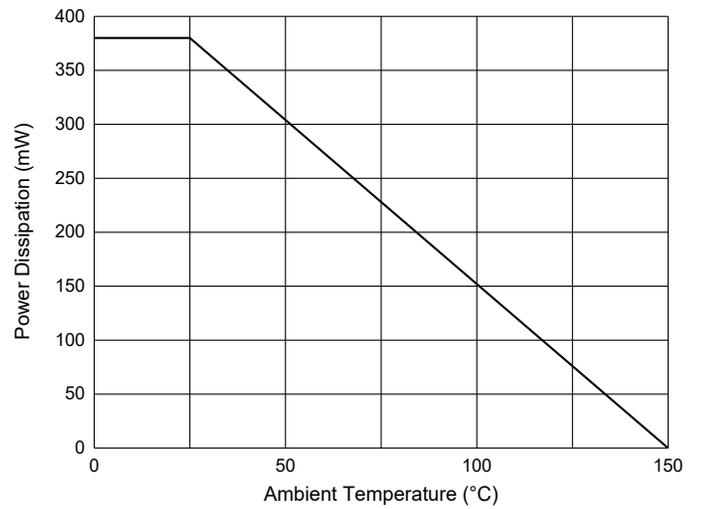
Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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