

Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Low Forward Voltage Drop
- High Surge Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 500°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
B5817WSHE3	SJ	20V	14V	20V
B5818WSHE3	SK	30V	21V	30V
B5819WSHE3	SL	40V	28V	40V

Electrical Characteristics @ 25°C Unless Otherwise Specified

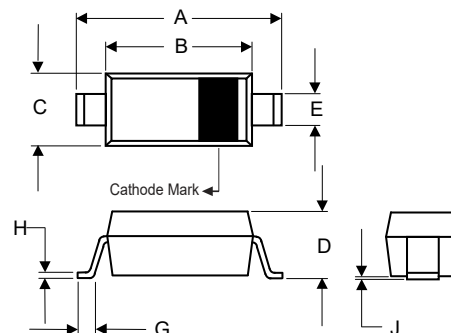
Average Forward Current	$I_{F(AV)}$	1.0A	$T_c = 90^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	10A	8.3ms Half Sine
Power Dissipation	P_D	250mW	
Maximum Instantaneous Forward Voltage (Note 2)	V_F		
B5817WSHE3		0.45V 0.75V	$I_{FM}=1.0\text{A}; T_J = 25^\circ\text{C}$ $I_{FM}=3.0\text{A}; T_J = 25^\circ\text{C}$
B5818WSHE3		0.55V 0.875V	$I_{FM}=1.0\text{A}; T_J = 25^\circ\text{C}$ $I_{FM}=3.0\text{A}; T_J = 25^\circ\text{C}$
B5819WSHE3		0.60V 0.90V	$I_{FM}=1.0\text{A}; T_J = 25^\circ\text{C}$ $I_{FM}=3.0\text{A}; T_J = 25^\circ\text{C}$
Reverse Leakage Current	I_R		
B5817WS		200μA(Max) 30μA(Typ)	$V_R = 20\text{V}, T_A = 25^\circ\text{C}$
B5818WS		40μA(Max) 4μA(Typ)	$V_R = 30\text{V}, T_A = 25^\circ\text{C}$
B5819WS		40μA(Max) 7μA(Typ)	$V_R = 40\text{V}, T_A = 25^\circ\text{C}$
Typical Junction Capacitance	C_J	120pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

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. Pulse Test: Pulse Width 300μsec, Duty Cycle 2%

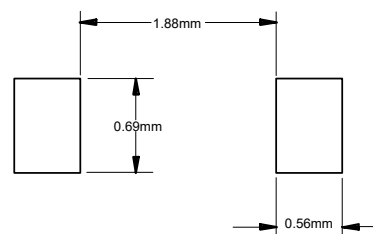
1 Amp Schottky Barrier Rectifier 20 - 40 Volts

SOD-323



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



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

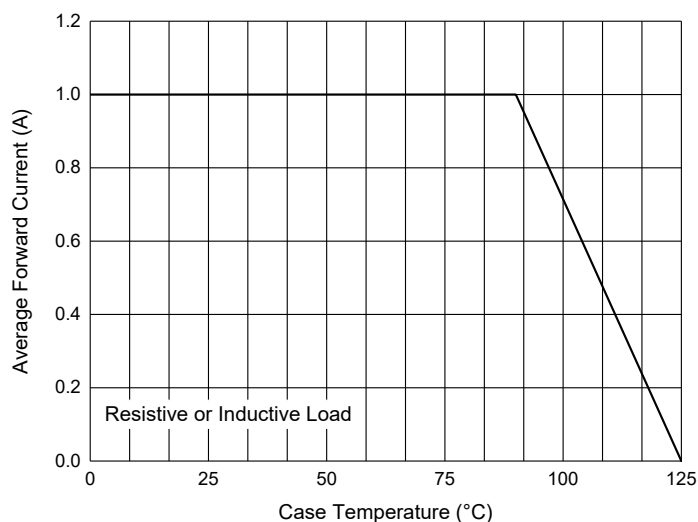


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

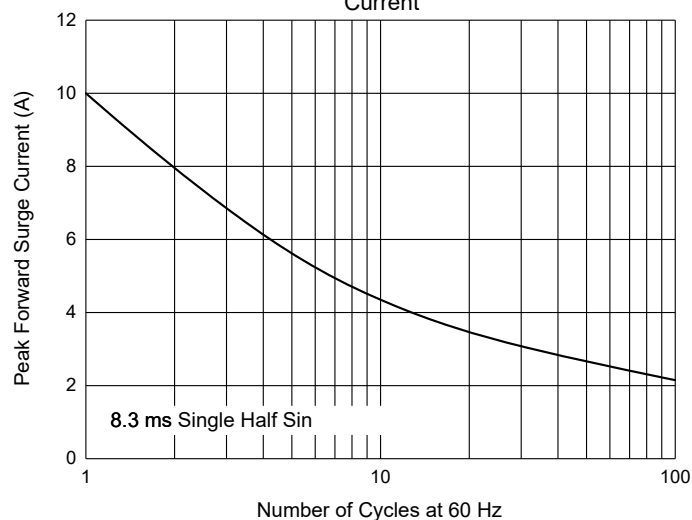


Fig. 3 - Typical Instantaneous Forward Characteristics

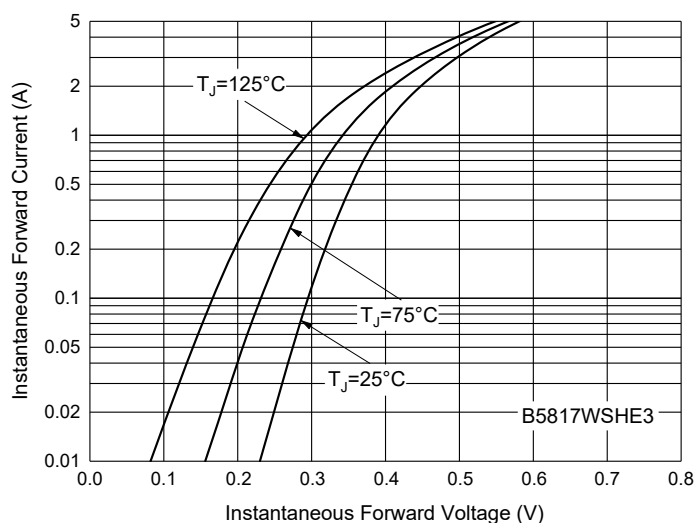


Fig. 4 - Typical Instantaneous Forward Characteristics

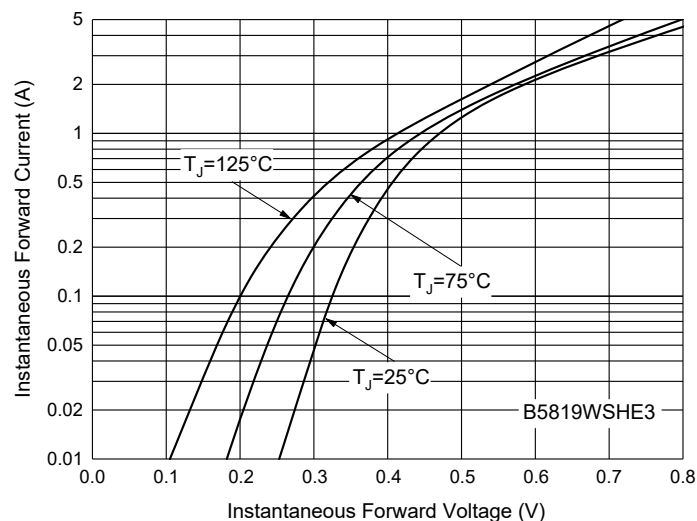


Fig. 5 - Typical Reverse Leakage Characteristics

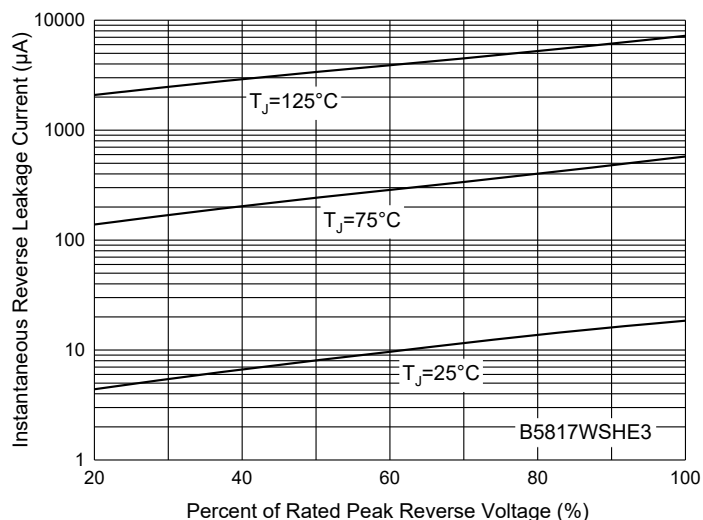
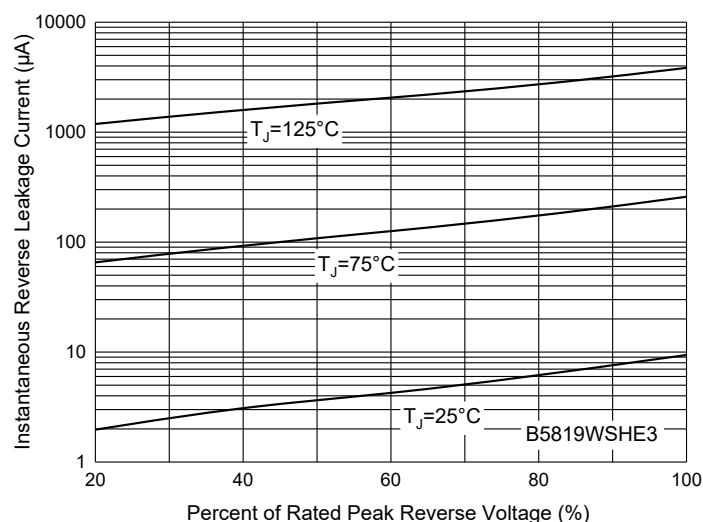


Fig. 6 - Typical Reverse Leakage Characteristics



Ordering Information

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

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