

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Guard Ring Protection
- Low Forward Voltage Drop
- For Use In Low Voltage, High Frequency Inverters
- 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: -65°C to +125°C
- Storage Temperature Range: -65°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
B5817WS	SJ	20V	14V	20V
B5818WS	SK	30V	21V	30V
B5819WS	SL	40V	28V	40V

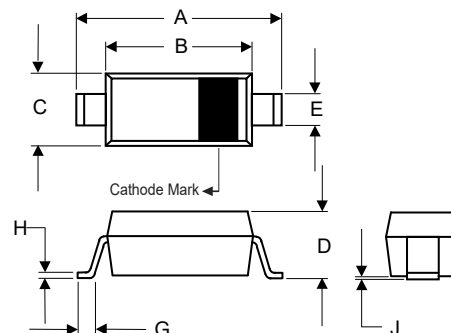
Electrical Characteristics @ 25°C Unless Otherwise Specified

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	V_F	0.45V 0.55V 0.60V 0.75V 0.875V 0.90V	$I_{FM}=1.0A$; $T_J = 25^\circ\text{C}$ (Note 1) $I_{FM}=3.0A$; $T_J = 25^\circ\text{C}$ (Note 1)
Reverse Leakage Current	I_R	200μA(Max) 30μA(Typ) 40μA(Max) 4μA(Typ) 40μA(Max) 7μA(Typ)	$V_R = 20V, T_A = 25^\circ\text{C}$ $V_R = 30V, T_A = 25^\circ\text{C}$ $V_R = 40V, T_A = 25^\circ\text{C}$
Typical Junction Capacitance	C_J	120pF	Measured at 1.0MHz, $V_R=4.0V$

Notes: 1. Pulse Test: Pulse Width 300μsec, Duty Cycle 2%

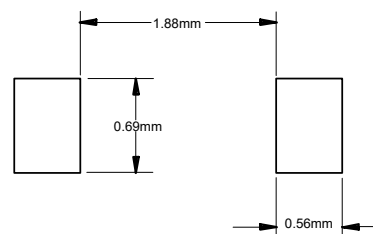
1 Amp Schottky Barrier Rectifier 20 - 40 Volts

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

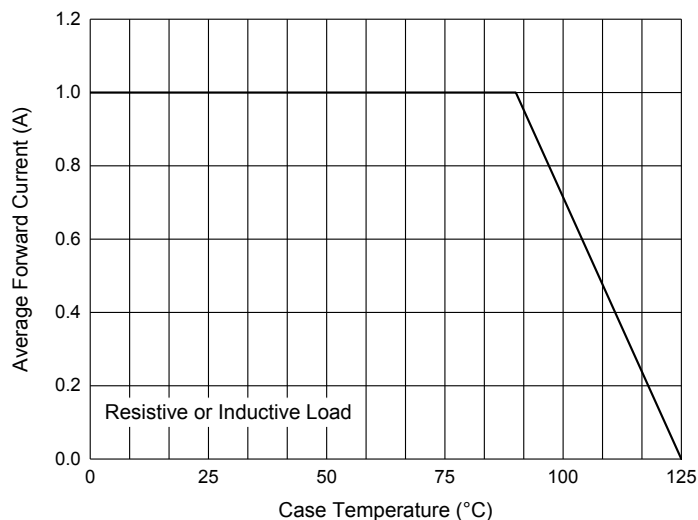


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

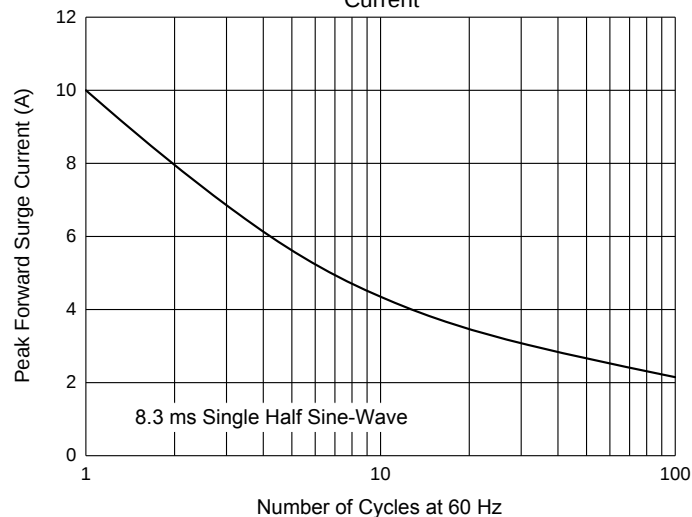


Fig. 3 - Typical Instantaneous Forward Characteristics

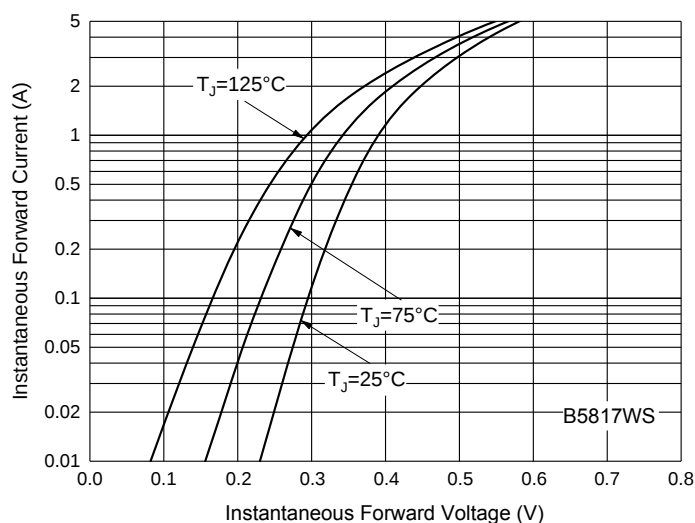


Fig. 4 - Typical Instantaneous Forward Characteristics

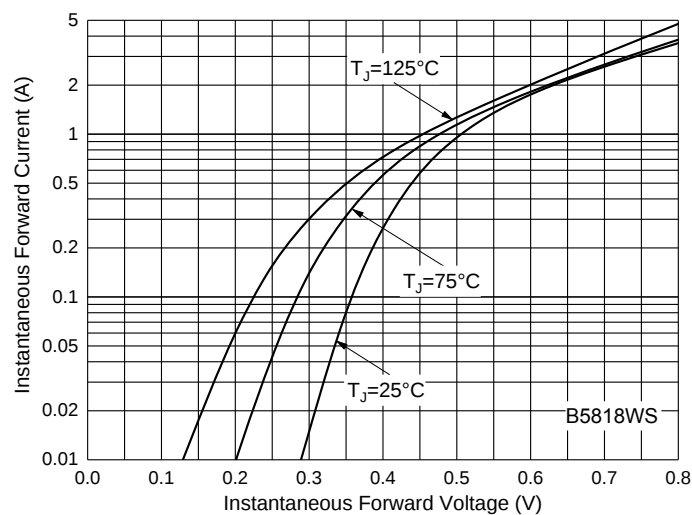


Fig. 5 - Typical Instantaneous Forward Characteristics

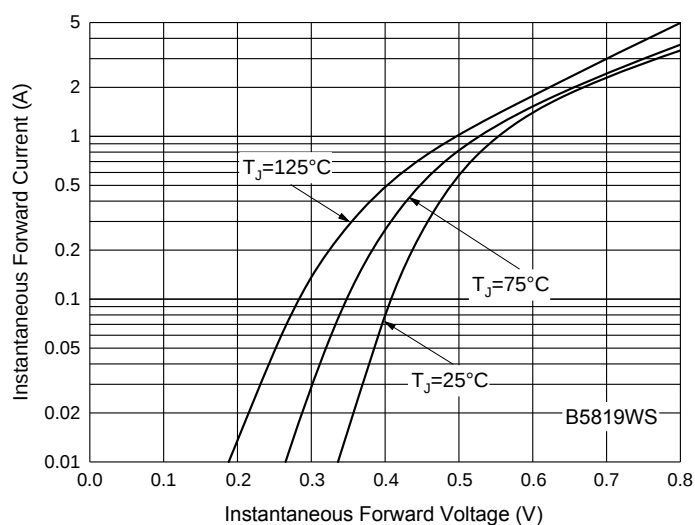
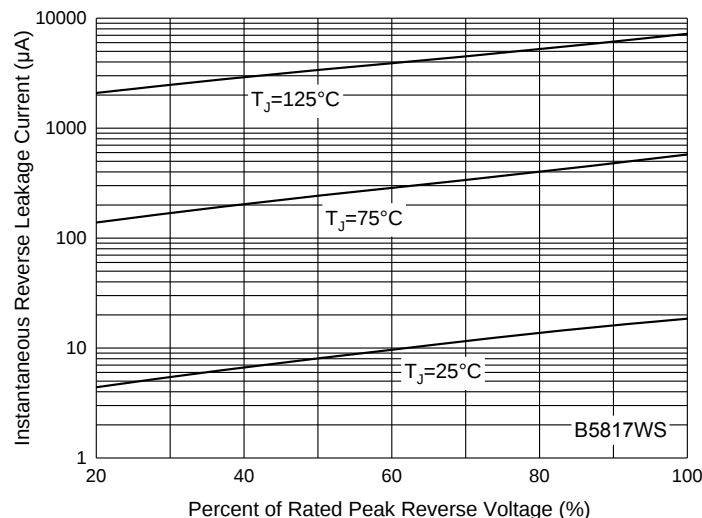


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

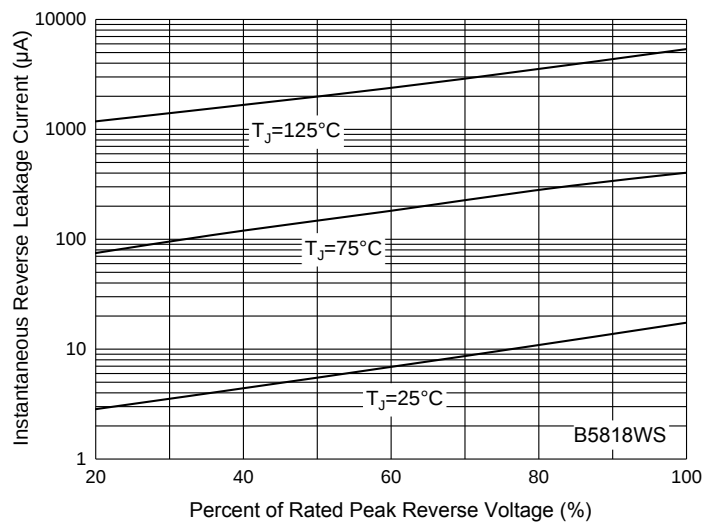
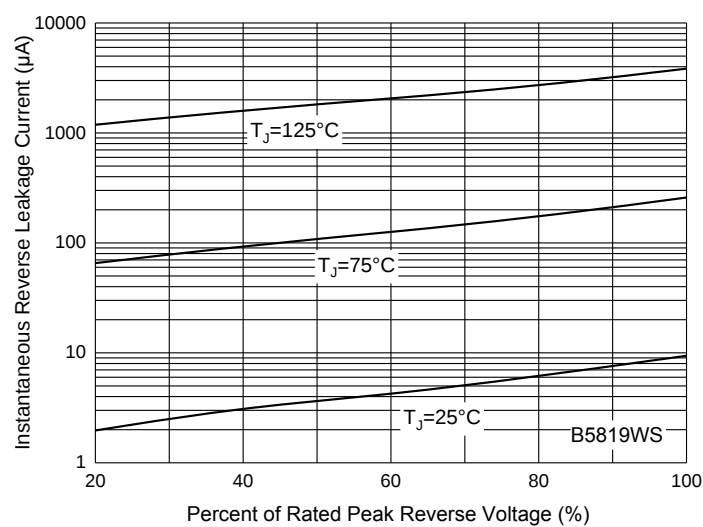


Fig. 8 - Typical Reverse Leakage Characteristics



Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9