



# B5817W THRU B5819W

## Surface Mount Schottky Barrier Rectifiers

**Reverse Voltage 20 - 40 Volts**  
**Forward Current - 1.0 Ampere**

### FEATURES

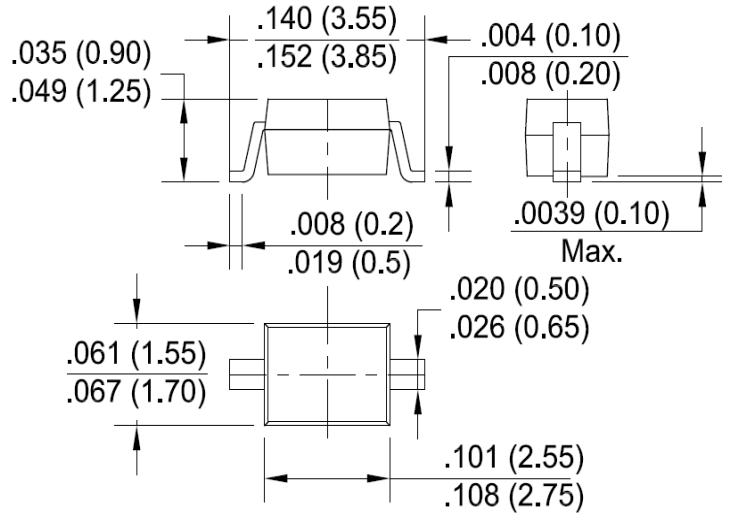
- Metal silicon junction, majority carrier conduction
- Guarding for overvoltage protection
- Low power loss, high efficient
- High current capability
- Low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

- Case: SOD-123
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 16mg 0.00056oz

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

### SOD-123



Package Outline Dimensions in Inches (Millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

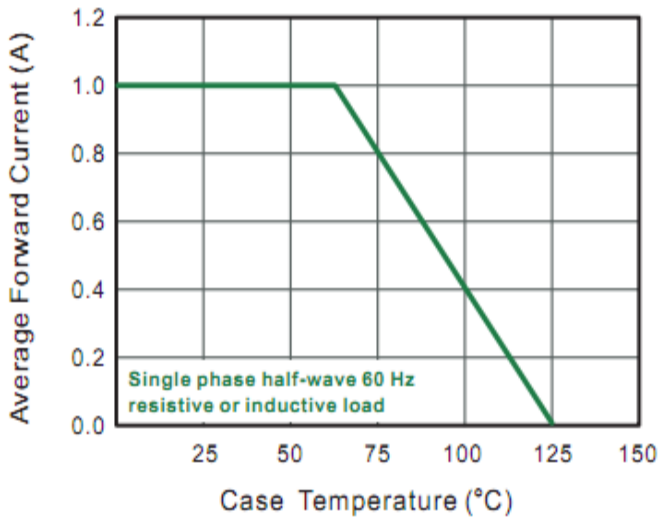
Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

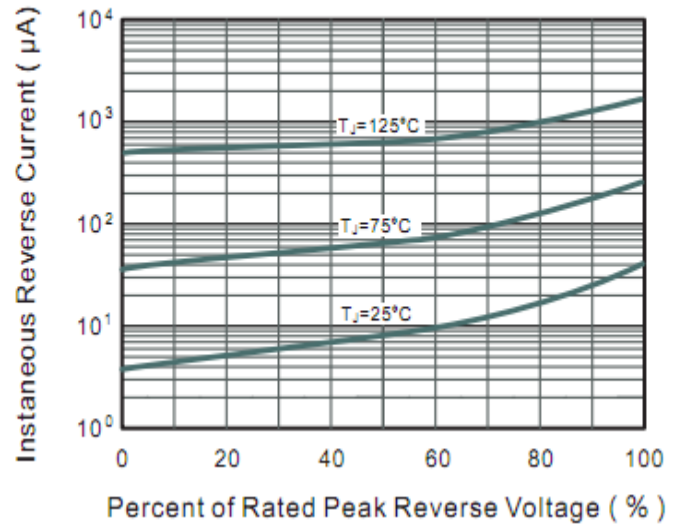
CHARACTERISTICS	SYMBOL	B5817W	B5818W	B5819W	UNIT
Device marking code		SJ	SK	SL	
Maximum Repetitive Peak reverse voltage	V <sub>RRM</sub>	20	30	40	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	V
Maximum DC Blocking Voltage	V <sub>R</sub>	20	30	40	V
Maximum average Forward Rectified Current	I <sub(av)< sub=""></sub(av)<>	1			A
Peak forward surge current @τ=8.3ms	I <sub>FSM</sub>	9			A
Maximum Instantaneous Forward voltage @I <sub>F</sub> =1A @I <sub>F</sub> =3A	V <sub>F</sub>	0.45	0.55	0.6	V
		0.75	0.875	0.9	
Maximum Instantaneous Reverse Current at TA=25°C TA=100°C	I <sub>R</sub>	1			mA
		10			
Typical Junction Capacitance	C <sub>j</sub>	110			pF
Junction temperature	T <sub>j</sub>	-55to+150			°C
Storage Temperature Range	T <sub>STG</sub>	-55to+150			°C



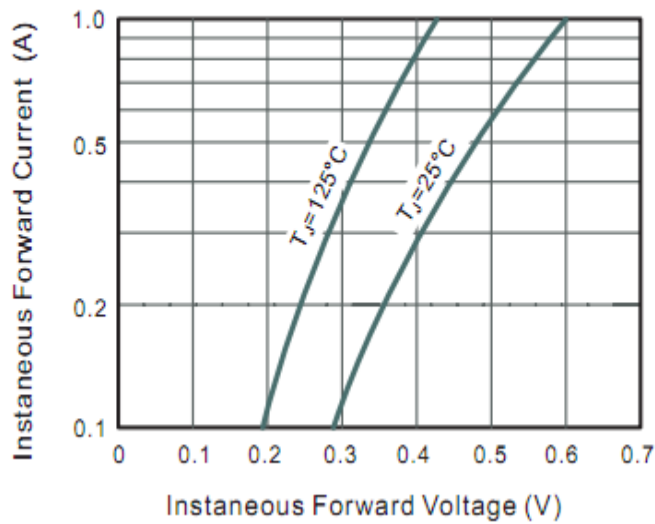
**Fig.1 Forward Current Derating Curve**



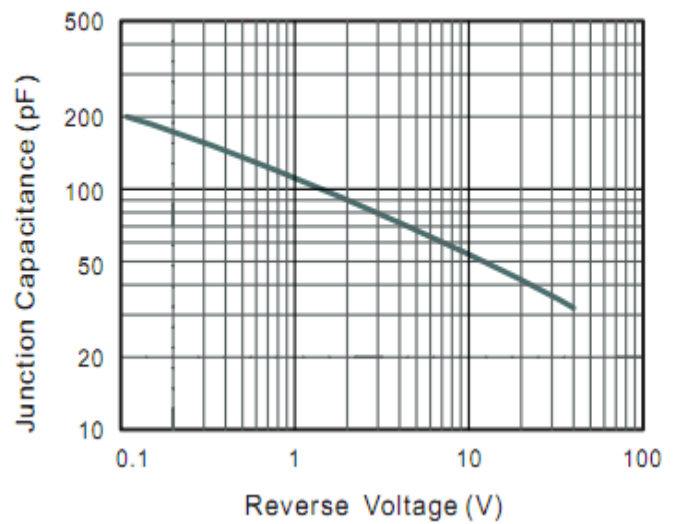
**Fig.2 Typical Reverse Characteristics**



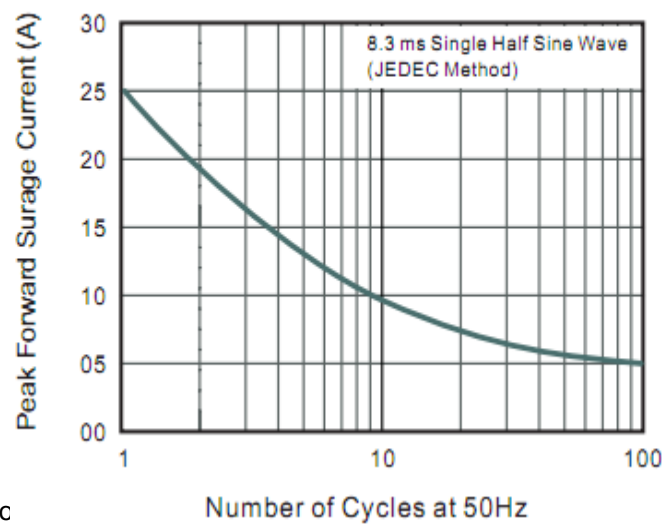
**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



The curve above is for reference c



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ALL specifications and data are subject to be changed without notice to improve reliability function or design or other reasons.

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