



Surface Mount Schottky Barrier Rectifiers

Reverse Voltage - 20 to 100Volts
Forward Current - 5.0 Amperes

Features

- Low power loss, high efficiency
- For surface mounted applications
- Low forward voltage drop
- High surge capacity
- Meet UL flammability classification 94V-0

Mechanical Data

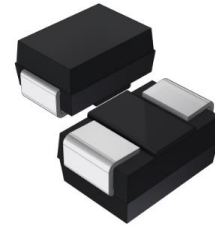
- Case: JEDEC SMB molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

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

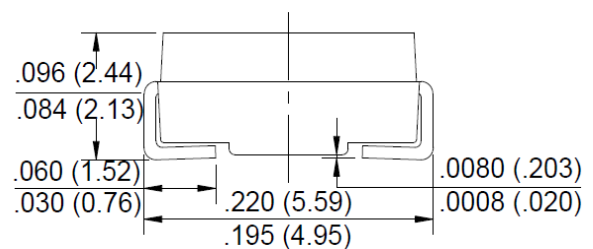
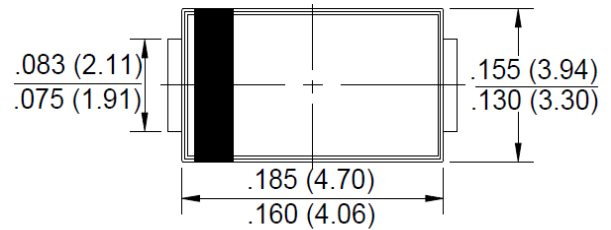
Applications

- For use in low voltage, high frequency inverters, polarity protection applications

SMB



RoHS
COMPLIANT



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	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	Unit	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	80	100	V	
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	56	70	V	
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	80	100	V	
Maximum Average Forward Rectified Current @T _L =95 °C	I _(AV)	5.0							A	
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150							A	
Peak Forward Voltage at 5.0A DC (Note1)	V _F	0.55			0.70		0.85		V	
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	1.0				50				mA
Typical Junction Capacitance (Note 2)	C _J	500			350				pF	
Typical Thermal Resistance Junction to Ambient	R _{θJA}	75								°C/W
Junction Temperature Range	T _J	-55 to+150								°C
Storage Temperature Range	T _{STG}	-55 to+150								°C

Notes: 1. 300uS pulse width, 2%duty cycle.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3. The typical data above is for reference only .



Fig. 1 - Forward Current Derating Curve

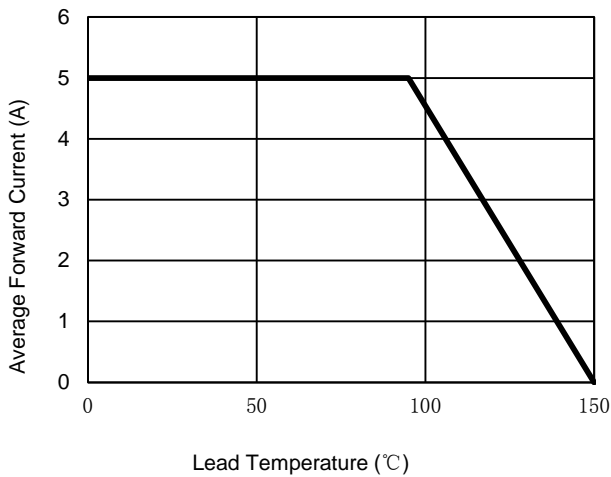


Fig. 2 - Maximum Non-Repetitive Surge Current

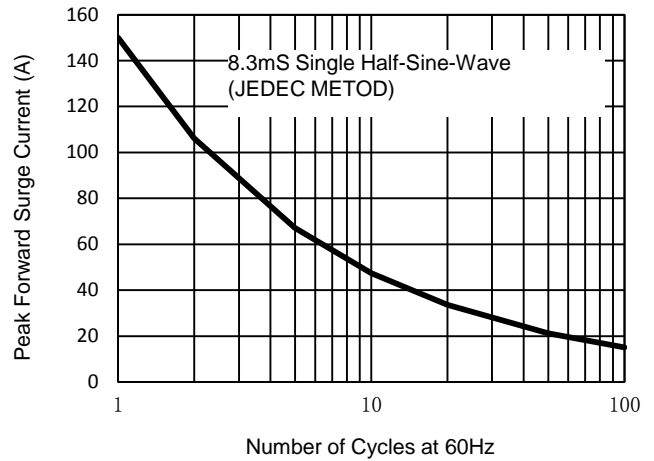


Fig. 3 - Typical Reverse Characteristics

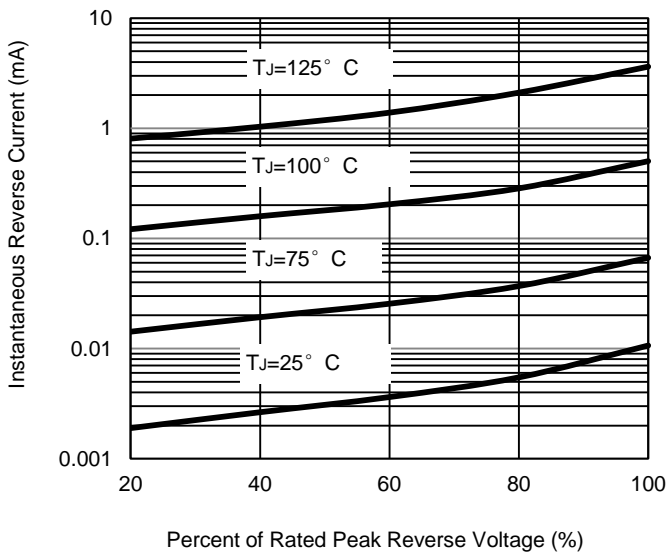


Fig. 4 - Typical Forward Characteristics

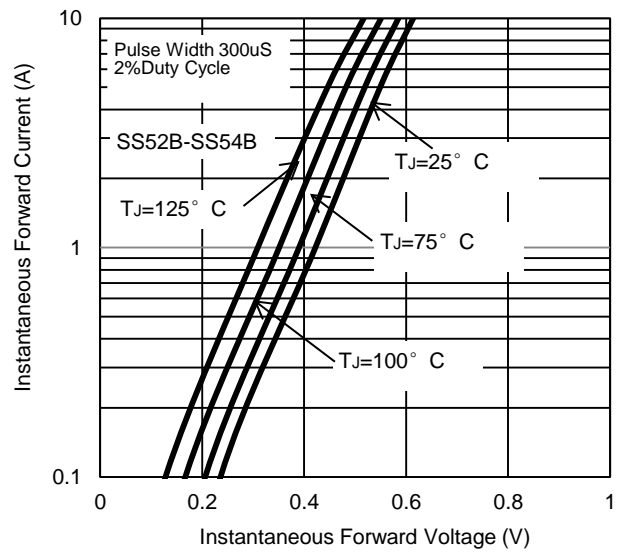


Fig. 5 - Typical Forward Characteristics

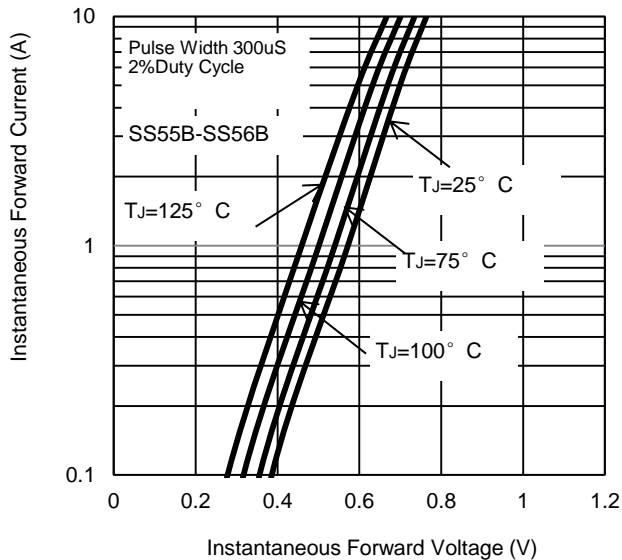
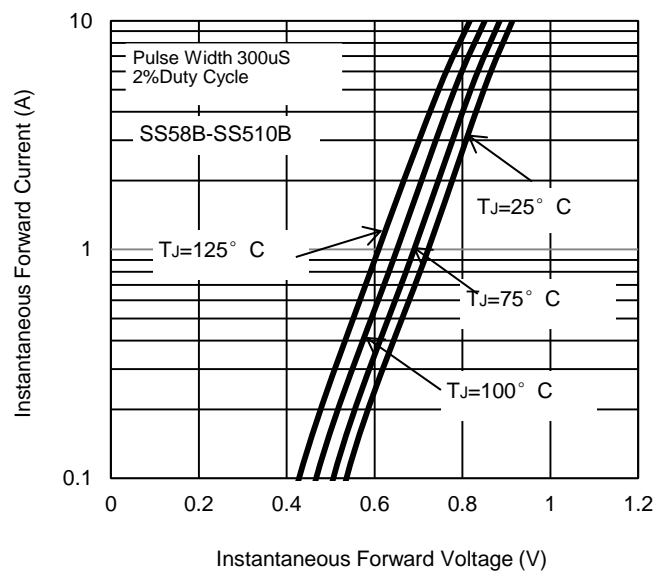


Fig. 6 - Typical Forward Characteristics





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