

# 1 Amp. Schottky Barrier Rectifiers

	<b>DO-41 (Plastic)</b>		<b>Voltage</b> 20 V to 150 V	<b>Current</b> 1.0 A
			<ul style="list-style-type: none"> <li>• Low power loss, high efficiency.</li> <li>• High current capability. low VF</li> <li>• High reliability</li> <li>• High surge current capability</li> <li>• Epitaxial construction</li> <li>• Guard-ring for transient protection</li> <li>• For use in low voltage, high frequency inverter, free wheeling, and polarity protection application</li> </ul>	
<b>Dimensions in mm.</b>			<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li>• Cases: DO-41 molded plastic</li> <li>• Epoxy: UL 94V-0 rate flame retardant</li> <li>• Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed</li> <li>• Polarity: Color band denotes cathode</li> <li>• High temperature soldering guaranteed: 260 °C/10 seconds/9.5 mm lead lengths at 5 lbs., (2.3 Kg) tension</li> <li>• Weight: 0.33 g.</li> </ul>	

## Maximum Ratings and Electrical Characteristics at 25 °C

		SB 120	SB 130	SB 140	SB 150	SB 160	SB 190	SB 1100	SB 1150	
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage (V)	20	30	40	50	60	90	100	150	
$V_{RMS}$	Maximum RMS Voltage (V)	14	21	28	35	42	63	70	105	
$V_{DC}$	Maximum DC Blocking Voltage (V)	20	30	40	50	60	90	100	150	
$I_{F(AV)}$	Maximum Average Forward Rectified Current (See graphic)	1.0 A								
$I_{FSM}$	8.3 ms. Peak Forward Surge Current (Jedec Method)	30 A								
$C_j$	Typical Junction Capacitance (Note 2)	80 pF		65 pF		28 pF				
$T_j$	Operating Temperature Range	-65 to +125 °C			-65 to +150 °C					
$T_{stg}$	Storage Temperature Range	-65 to +150 °C								

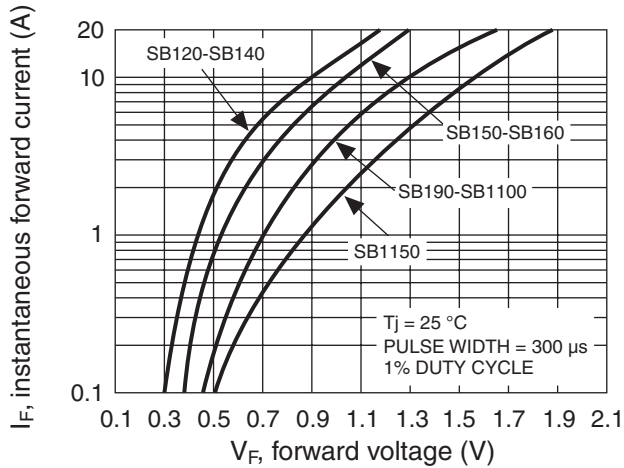
## Electrical Characteristics at Tamb = 25 °C

$V_F$	Maximum Instantaneous Forward Voltage $I_F = 1.0$ A	0.55 V	0.70 V	0.80 V	0.95 V
$I_R$	Maximum DC Reverse Current $T_a = 25$ °C	0.5 mA			0.1 mA
	at Rated DC Blocking Voltage $T_a = 125$ °C	10 mA	5.0 mA	2.0 mA	
$R_{th(j-a)}$	Typical Thermal Resistance (Note 1)	90 °C/W			

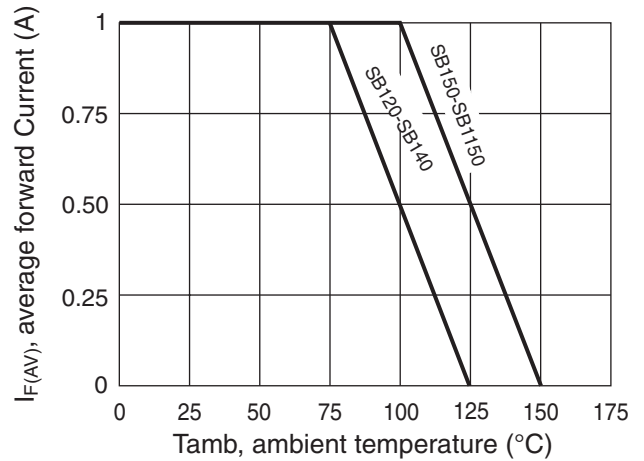
NOTES: 1. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.  
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

### Rating And Characteristic Curves

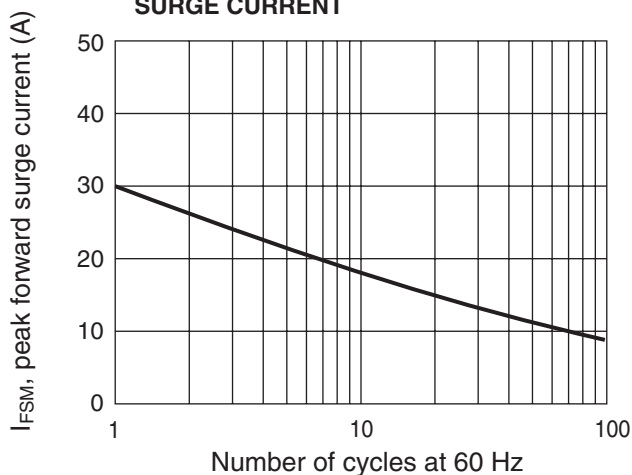
**TYPICAL FORWARD CHARACTERISTIC**



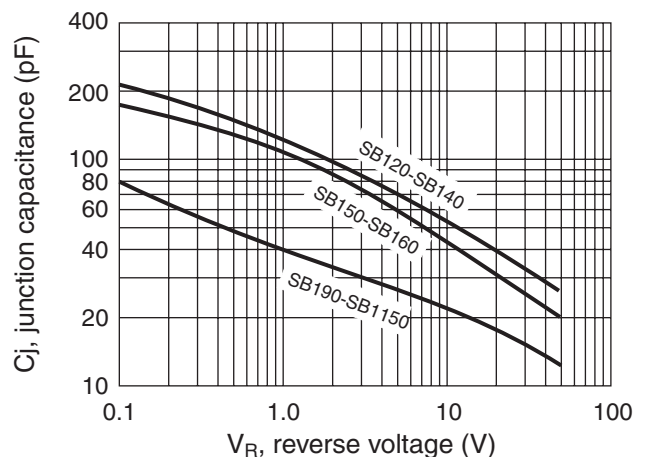
**MAXIMUM FORWARD CURRENT DERATING CURVE**



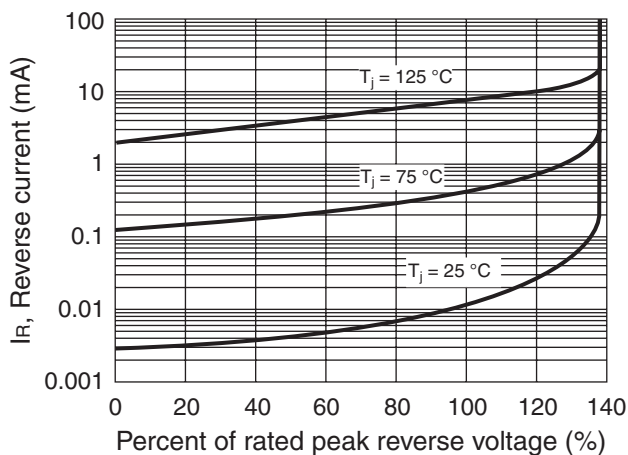
**MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**TYPICAL JUNCTION CAPACITANCE**



**TYPICAL REVERSE CHARACTERISTIC**



**TYPICAL TRANSIENT THERMAL CHARACTERISTIC**

