

**SB5P45**

**5.0AMPS. SCHOTTKY BARRIER RECTIFIERS**

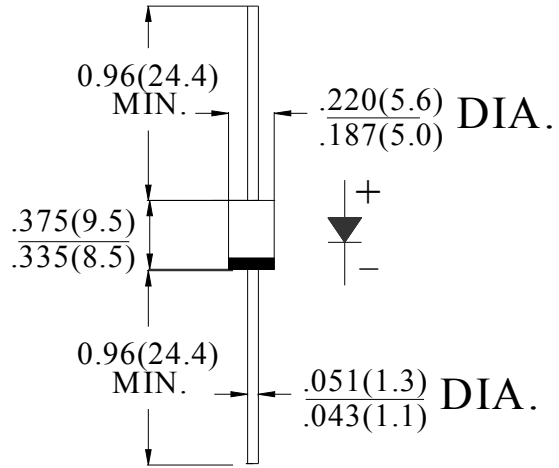
**FEATURE**

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed  
260°C /1 0sec/0.375" lead length at 5 lbs tension

**MECHANICAL DATA**

- . Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
- . Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
- . Polarity: color band denotes cathode
- . Mounting position: any

**DO-27/DO-201AD**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number	SYM BOL	SB5P45	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	45	V
Maximum RMS Voltage	$V_{RMS}$	31.5	V
Maximum DC blocking Voltage	$V_{DC}$	45	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	5.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	100	A
Forward Voltage @ $T_A = 25^\circ\text{C}$	At 5.0A DC	$V_{F Max}$	0.45
		$V_{F Typ}$	0.43
	At 1.0A DC	$V_{F Typ}$	0.33
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	$I_R$		0.2
			10
Typical Junction Capacitance (Note1)	$C_J$	420	pF
Typical Thermal Resistance (Note2)	$R_{(JA)}$	45	$^\circ\text{C}/\text{W}$
	$R_{(JL)}$	12	
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$
Operating Junction Temperature	$T_J$	-55 to +150	$^\circ\text{C}$

**Note:**

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient at 0.375"(9.5mm) lead length, vertical P.C. Board Mounted

**RATING AND CHARACTERISTIC CURVES (SB5P45)**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

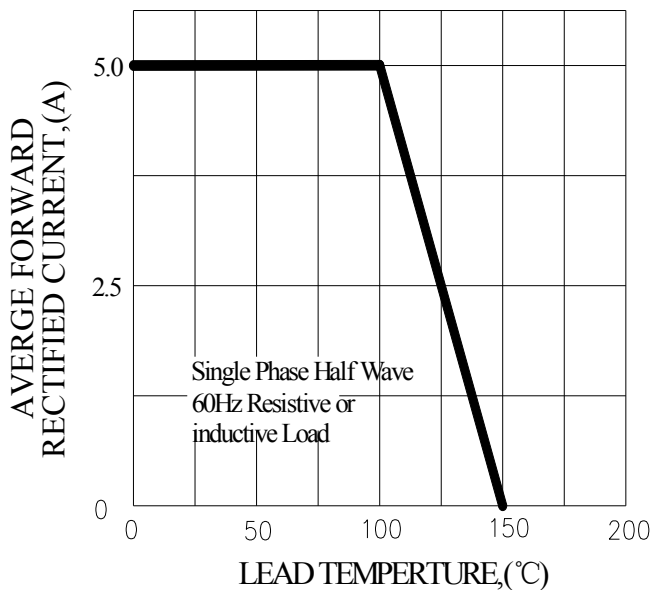


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

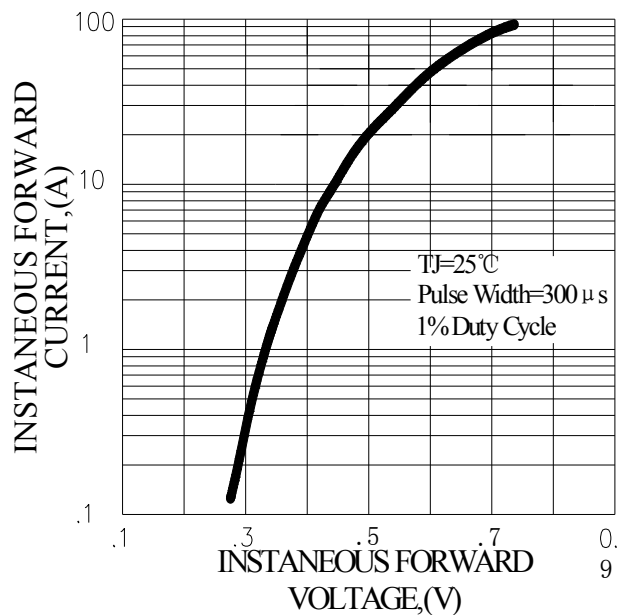


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

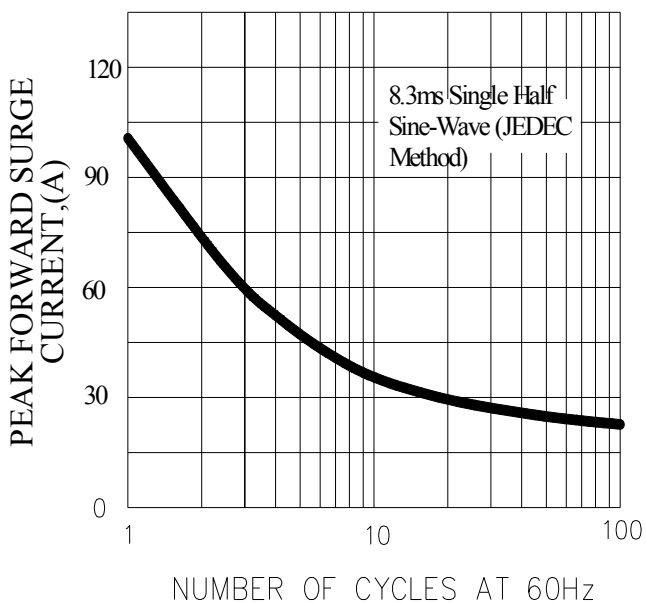


FIG.4-TYPICAL REVERSE CHARACTERISTICS

