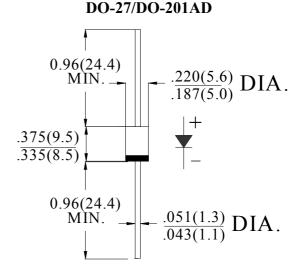
# SB5P45 5.0AMPS. SCHOTTKY BARRIER RECTIFIERS

#### **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



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		$V_{ m RRM}$	45	V
Maximum RMS Voltage		$V_{ m RMS}$	31. 5	V
Maximum DC blocking Voltage		$V_{ m DC}$	45	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at T <sub>L</sub> =100°C		I <sub>F(AV)</sub>	5.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	100	A
Forward Voltage @T <sub>A</sub> =25°C	At 5.0A DC	V <sub>F Max</sub>	0.45	
		$V_{\mathrm{FTyp}}$	0.43	V
	At 1.0A DC	$V_{\mathrm{FTyp}}$	0.33	
Maximum DC Reverse Current @T <sub>A</sub> =25°C		$I_{ m R}$	0.2	mA
at rated DC blocking voltage @T <sub>A</sub> =100°C			10	
Typical Junction Capacitance (Note1)		C <sub>J</sub>	420	pF
Typical Thermal Resistance (Note2)		$R_{(JA)}$	45	°C/W
		$R_{(JL)}$	12	
Storage Temperature		TSTG	-55 to +150	°C
Operating Junction Temperature		$T_{ m J}$	-55 to +150	°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

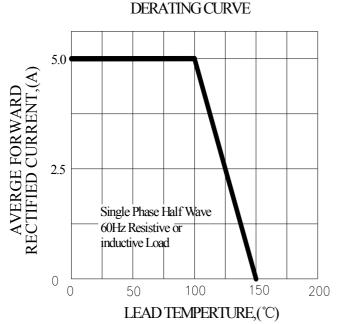


FIG.2-TYPICAL INSTANTANEOUS FORWARD **CHARACTERISTICS** 

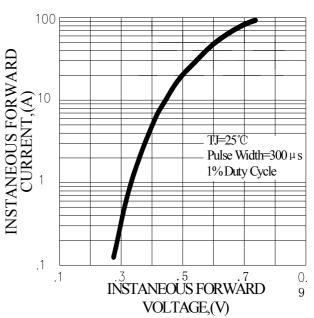
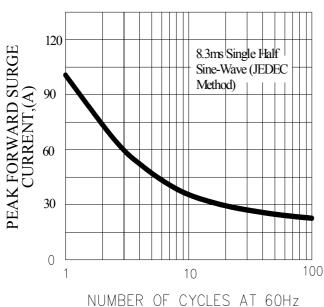
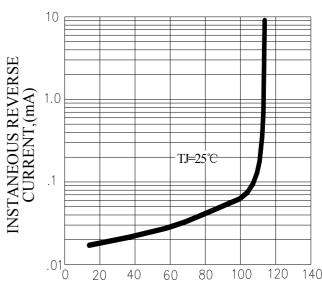


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT



## FIG.4-TYPICAL REVERSE **CHARACTERISTICS**



PERCENT OF RATED PEAK REVERSE VOLTAGE,(%)

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