

**SB5P45**

**5.0AMPS. SCHOTTKY BARRIER RECTIFIERS**

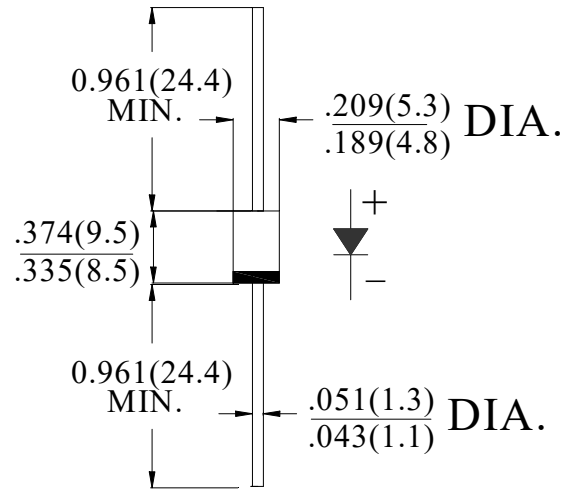
**FEATURE**

- . 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	$I_{F(AV)}$	5.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	120	A
Maximum Forward Voltage at 5.0A DC	$V_F$	0.45	V
Maximum DC Reverse Current @ $T_J=25^{\circ}C$ at rated DC blocking voltage @ $T_J=100^{\circ}C$	$I_R$	0.2 40	mA
Typical Junction Capacitance (Note1)	$C_J$	420	pF
Typical Thermal Resistance (Note2)	$R_{(JA)}$	45	°C/W
	$R_{(JL)}$	12	
Storage Temperature	$T_{STG}$	-55 to +150	°C
Operating Junction Temperature	$T_J$	-55 to +125	°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**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

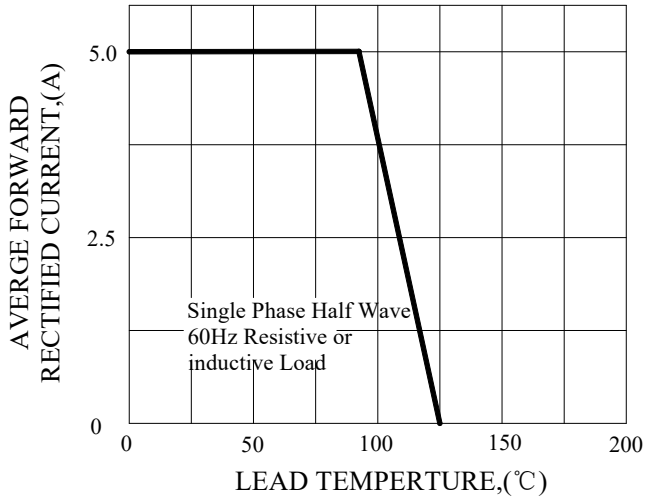


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

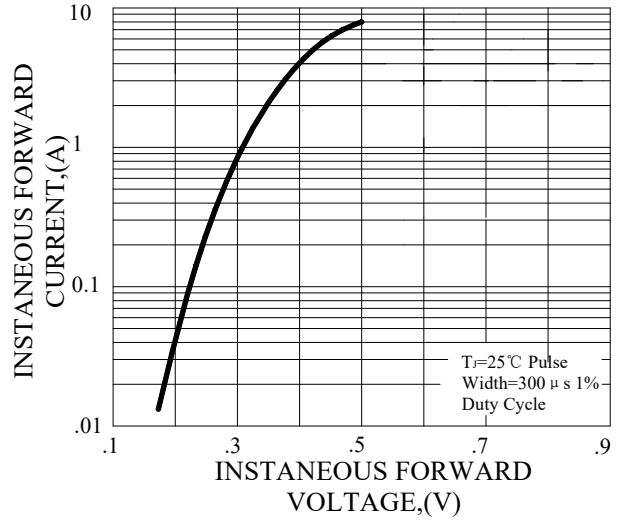


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

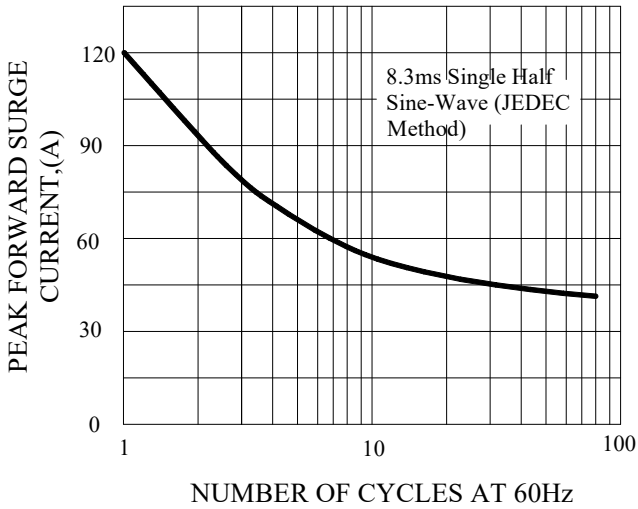
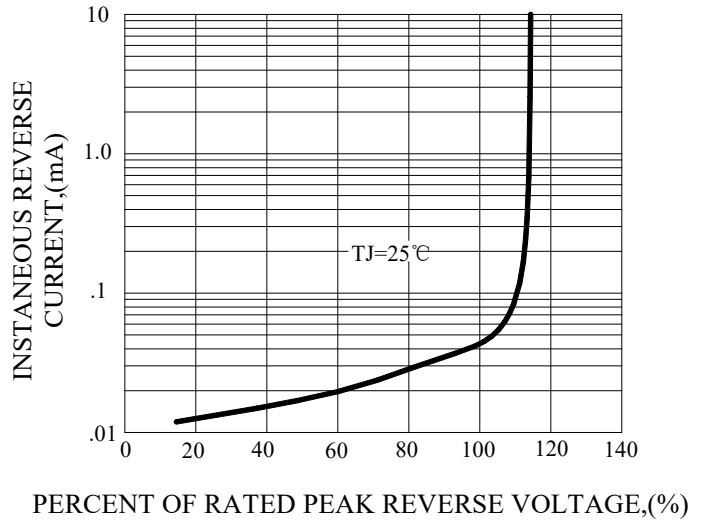
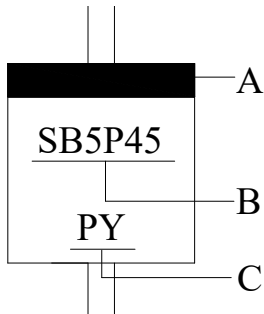


FIG.4-TYPICAL REVERSE CHARACTERISTICS



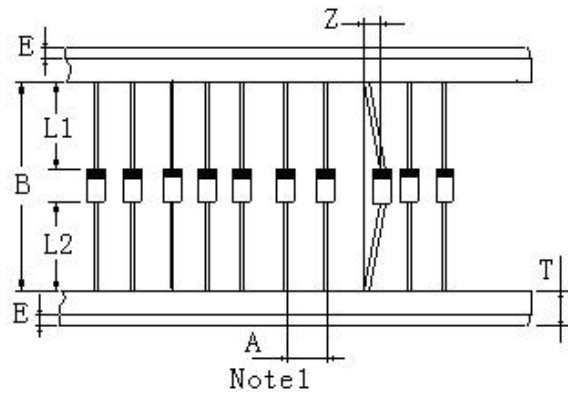
## Marking and packaging illustration

### 1、Marking



SYMBOL	Explanation
A	Color Band Denotes Cathode
B	Product Name
C	Trademark

### 2、Packaging



ITEM	SYMBOL	SPECIFICATIONS	
		(mm)	(inch)
Component alignment	Z	1.2max	0.048max
Tape width	T	6.0±0.4	0.236±0.016
Exposed adhesive	E	0.8max	0.032max
Body eccentricity	L1-L2	1.0max	0.040max
Component	A	10.0±0.5	0.4±0.02
Inner tap	B	52.0~53.5	2.05~2.11

NOTE:

Each component lead shall be sandwiched between tapes for a minimum of 2.5mm (0.1inch)