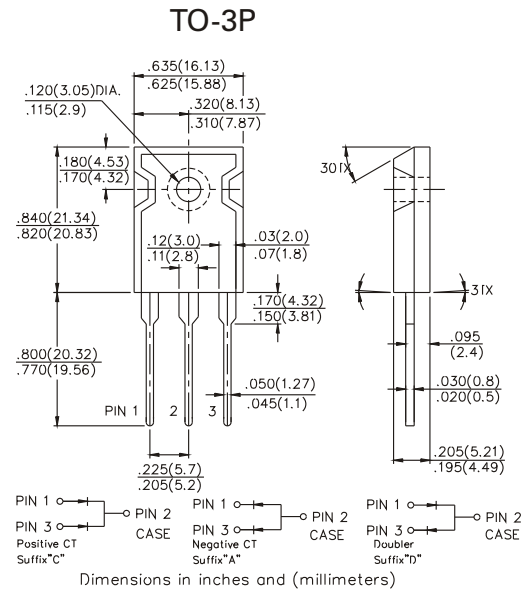
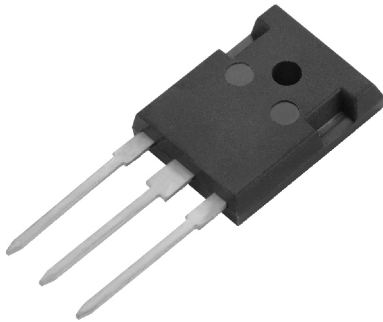


# SB3020PT thru SB30200PT

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 TO 200 VOLTS CURRENT - 30 AMPERES



### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High Current Capability
- Guardring for over voltage protection
- For use in low voltage, high frequency inverters Free wheeling, and polarity protection applications
- Component are in compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

Case : TO-3P Molded plastic  
 Terminals : Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity : As Marked  
 Mounting Position : Any  
 Weight : 0.2 ounces, 5.6gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATINGS	SYMBOL	SB 3020PT	SB 3030PT	SB 3040PT	SB 3045PT	SB 3050PT	SB 3060PT	SB 3080PT	SB 30100PT	SB 30150PT	SB 30200PT	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	45	50	60	80	100	150	200	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	31.5	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	45	50	60	80	100	150	200	Volts
Maximum Average Forward Current (See Fig.1)	$I_{(AV)}$	30										Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	200										Amps
Maximum Forward Voltage at 15A	$V_F$	0.65			0.75		0.8		0.92			Volts
Maximum DC Reverse Current $T_C=25^\circ C$ at Rated DC Blocking Voltage $T_C=125^\circ C$	$I_{RM}$	0.1					20					mA
Typical Therm Resistance	$R_{\theta JC}$	1.4										$^\circ C / W$
Operating Junction Temperature Range	$T_J$	-50 to +150										$^\circ C$
Storage Temperature Range	$T_{STG}$	-50 to +170										$^\circ C$

NOTE :

1. Both Bonding and Chip structure are available.

# SB3020PT thru SB30200PT

## SCHOTTKY BARRIER RECTIFIER

### RATING AND CHARACTERISTICS CURVES SB3020PT THRU SB30200PT

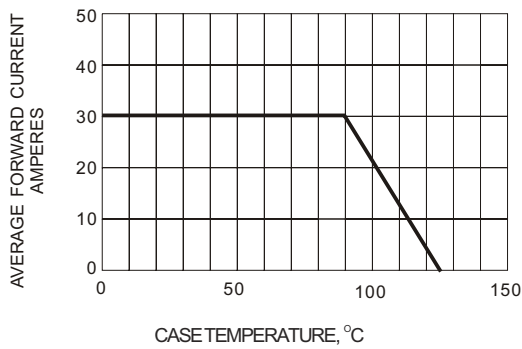


Fig.1- FORWARD CURRENT DERATING CURVE

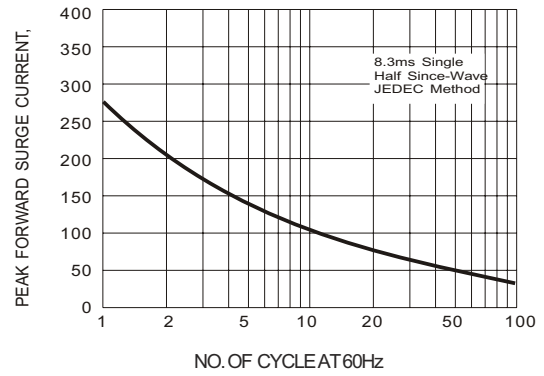


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

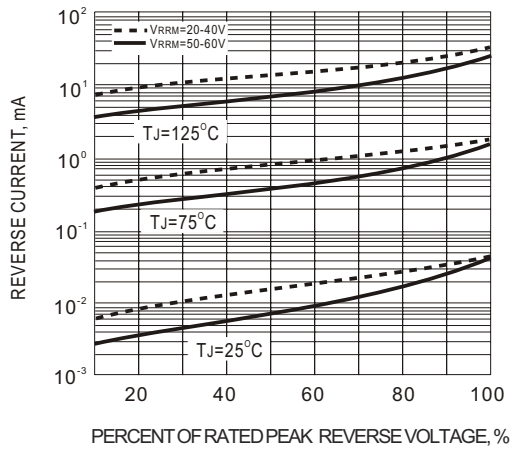


Fig.3- TYPICAL REVERSE CHARACTERISTIC

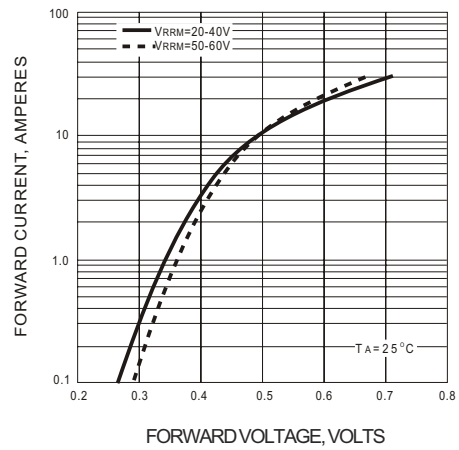


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC