

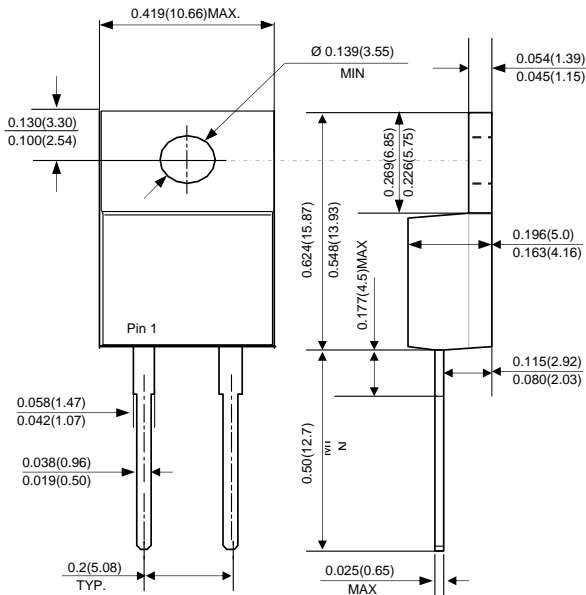


# SB1602T THRU SB1620T

## 16 AMPERS SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 Volts Forward Current - 16.0 Ampere

### TO-220AC



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound.
- ◆ Exceeds environmental standards of MIL-S-19500/228
- ◆ Low forward voltage, high current capability
- ◆ Low power loss, high efficiency.
- ◆ High surge capacity.
- ◆ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- ◆ In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

**Case:** JEDEC TO-220AC, Molded plastic package

**Terminals:** Solderable per MIL-STD-750 Method 2026

**Approx. Weight:** 0.0655 ounces, 1.859 grams.

**Standard Packaging :** Tube

**Mounting Position:** Any.

### 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 current derate by 20%.

PARAMETER	SYMBOLS	SB 1602T	SB 1603T	SB 1604T	SB 16045T	SB 1606T	SB 1608T	SB 1610T	SB 1615T	SB 1620T	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	45	60	80	100	150	200	Volts
Maximum RMS voltage	$V_{RMS}$	14	21	28	31.5	42	56	70	105	140	Volts
Minimum Reverse Breakdown Voltage	$V_R$	20	30	40	45	60	80	100	150	200	Volts
Average Rectified current	$I_{(AV)}$	16.0									Amp
Non-repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150									Amps
Maximum Forward Voltage at $I_F=16.0A$ per leg	$V_F$	0.65			0.75	0.85	0.90	0.92			Volts
Reverse Leakage Current at $V_{RRM}$	$I_R$	0.5									mA
Typical Thermal Resistance	$R_{\theta JA}$	2.0									°C/W
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150			-65 to +175						°C

**Note:** Both Bonding and Chip structure are available



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## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

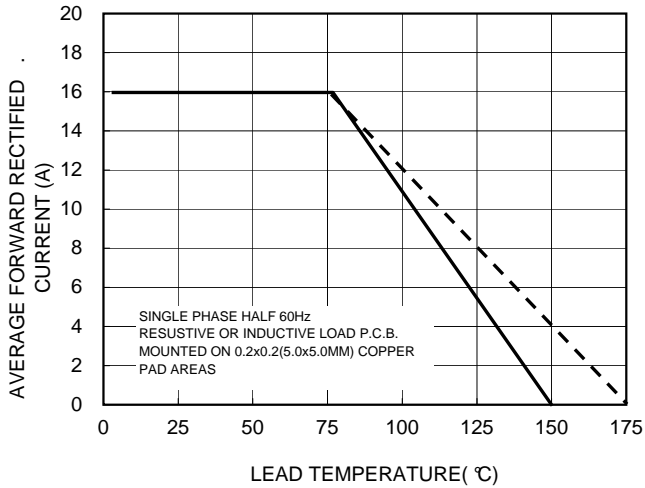


FIG. 2-TYPICAL FORWARD SURGE CHARACTERISTICS

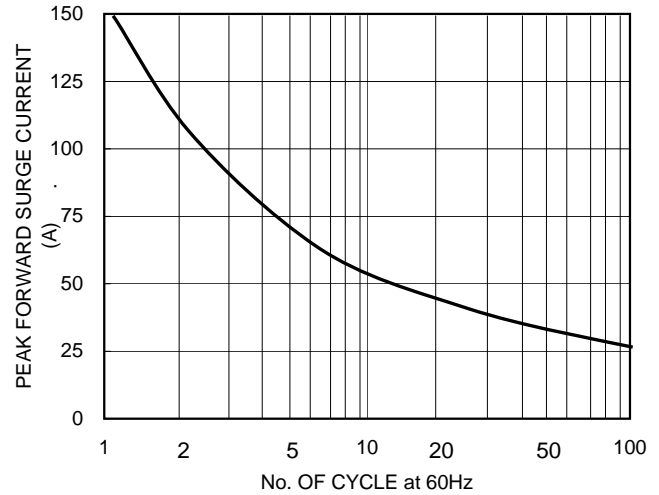


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

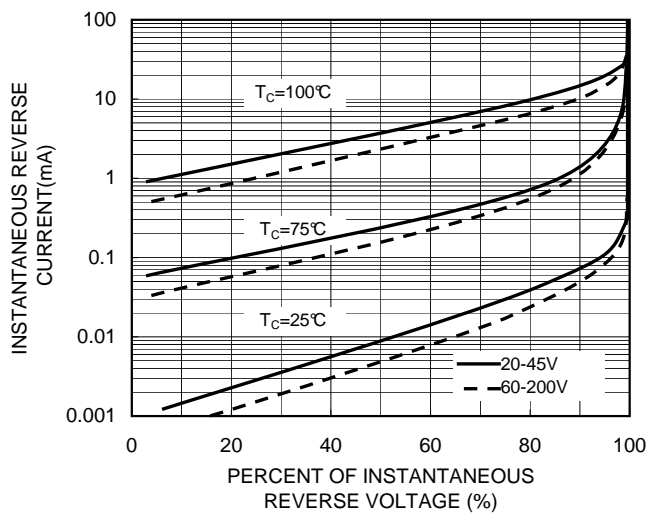


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

