

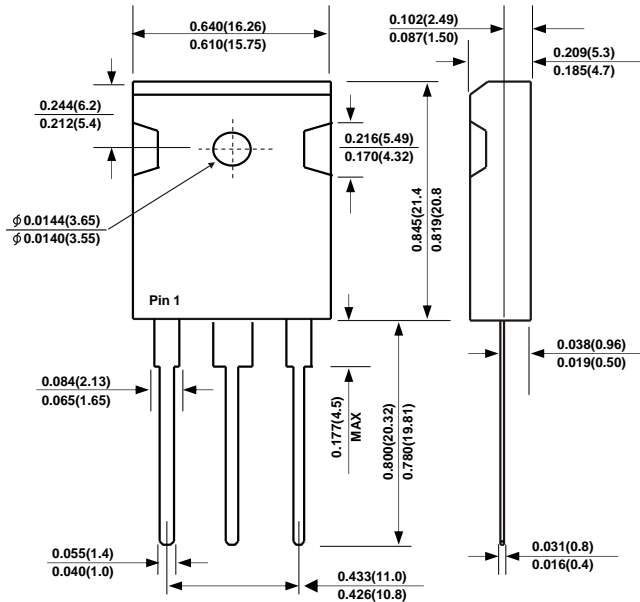


SB3020PT THRU SB30200PT

30 AMPERS SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 Volts Forward Current - 30.0 Ampere

TO-3P



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-3P, Molded plastic package

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

Approx. Weight: 0.2245 ounces, 6.3673 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 3020PT	SB 3045PT	SB 3060PT	SB 3080PT	SB 30100PT	SB 30150PT	SB 30200PT	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	Volts
Minimum Reverse Breakdown Voltage	V_R	20	40	60	80	100	150	200	Volts
Average Rectified current	$I_{(AV)}$	30.0							Amp
Non-repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	275							Amps
Maximum Forward Voltage at $I_F=15.0A$ per die	V_F	0.55	0.75	0.80	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 Temperature Range	T_J	-55 to +125	-55 to +150						°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Note: Both Bonding and Chip structure are available



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

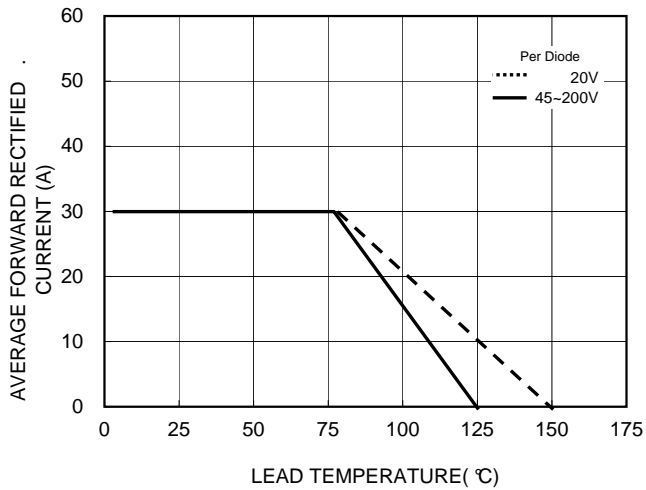


FIG. 2-TYPICAL FORWARD SURGE CHARACTERISTICS

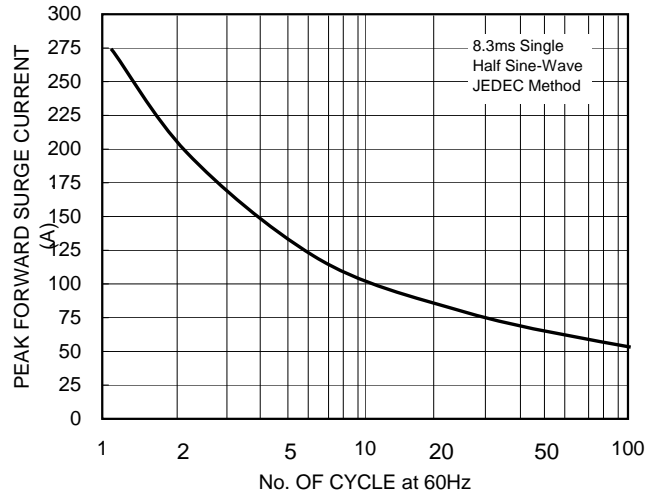


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

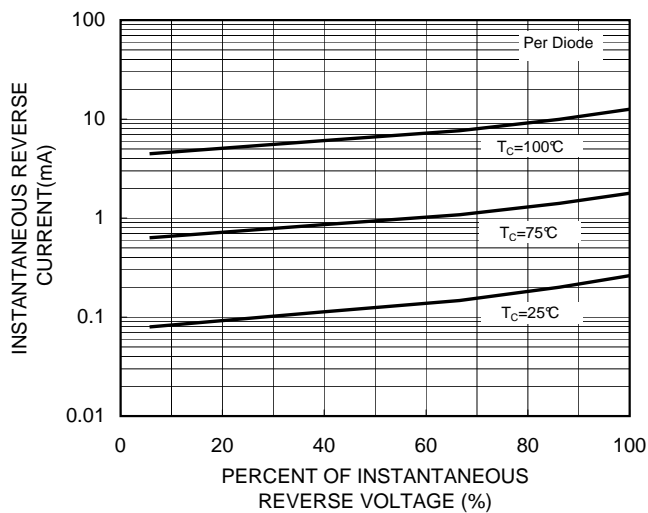


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

