

SBP16-T SERIES

SCHOTTKY RECTIFIER

GENERAL
INSTRUMENT



FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- Exceeds environmental standards of MIL-STD-19500
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low V_f
- High surge capacity
- Epitaxial construction
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

MECHANICAL DATA

Case: TO-220 molded plastic
 Terminals: Lead solderable per MIL-STD-202, Method 208
 Polarity: As marked
 Mounting Position: Any
 Weight: .08 ounces, 2.24 grams

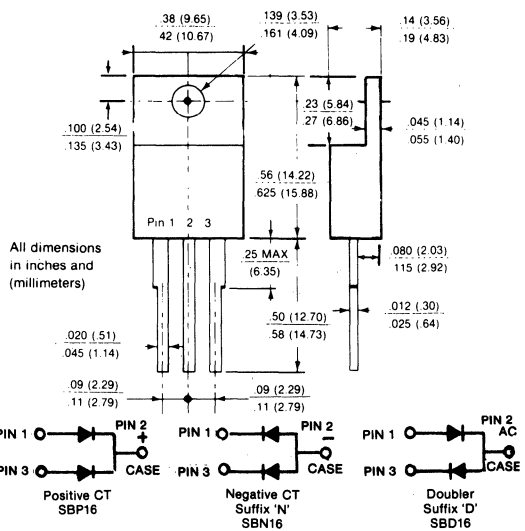
VOLTAGE RANGE

20 to 60 Volts

CURRENT

16 Amperes

TO-220 CT



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SBP 1620T	SBP 1630T	SBP 1635T	SBP 1640T	SBP 1645T	SBP 1650T	SBP 1660T	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	35	40	45	50	60	V
Maximum RMS Voltage	14	21	24.5	28	31.5	35	42	V
Maximum DC Blocking Voltage	20	30	35	40	45	50	60	V
Maximum Average Forward Rectified Current See Fig. 1	16.0							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	250							A
Maximum Instantaneous Forward Voltage Per Leg $I_f = 8.0A$, $T_c = 125^\circ C$ (Note 3) $I_f = 8.0A$, $T_c = 25^\circ C$						.55 .65	.65 .75	V V
Maximum Average Reverse Current at $T_c = 25^\circ C$ Rated DC Blocking Voltage per element $T_c = 100^\circ C$	5 50							mA mA
Typical Thermal Resistance $R_{\theta JC}$ (Note 1)	3.0							$^\circ C/W$
Typical Junction Capacitance (Note 2)	700					460		pF
Operating Temperature Range, T_c	-65 to +125					-65 to +150		$^\circ C$
Storage Temperature Range, T_{stg}	-65 to +150							$^\circ C$

NOTES:

1. Thermal Resistance Junction to CASE.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. 300 μs Pulse Width, 2% Duty Factor.

**RATING AND CHARACTERISTIC CURVES
SBP16-T SERIES**

FIG. 1 — FORWARD CURRENT DERATING CURVE

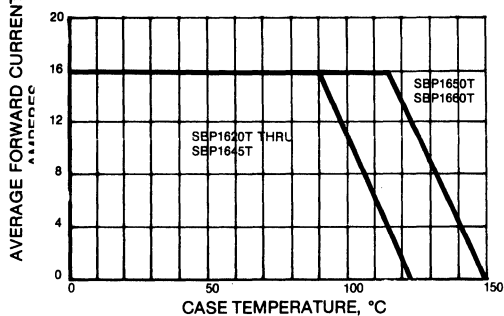


FIG. 2 — TYPICAL REVERSE CHARACTERISTICS

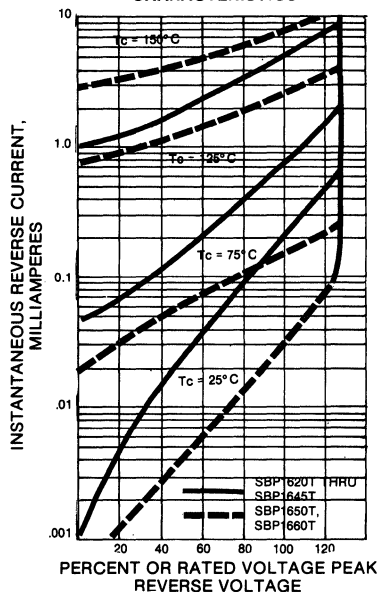


FIG. 3 — MAXIMUM NON-REPETITIVE SURGE CURRENT

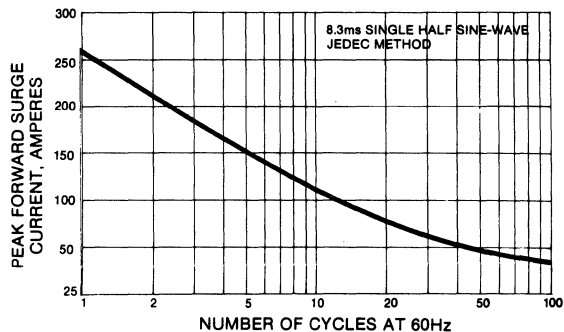


FIG. 4 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

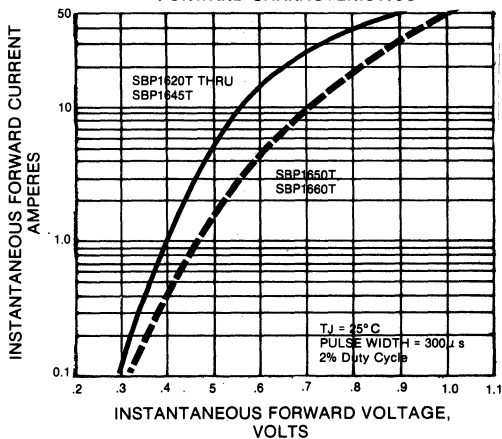


FIG. 5 — TYPICAL JUNCTION CAPACITANCE

