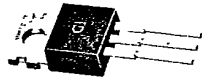


SBP10-T SERIES
SCHOTTKY RECTIFIER

GENERAL INSTRUMENT

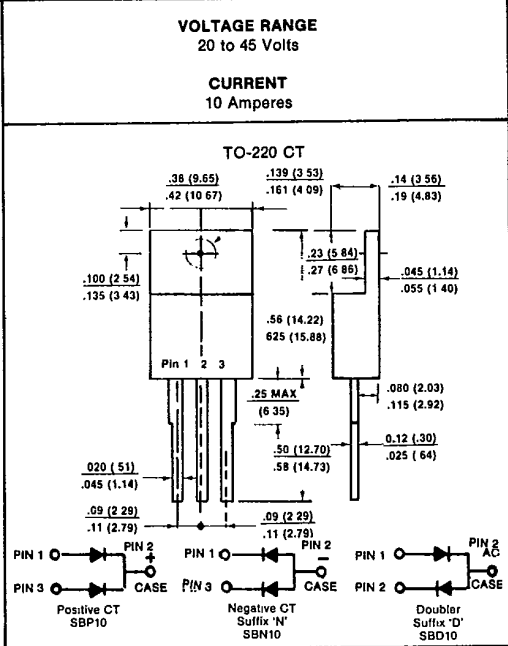


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing General
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low V_f
- High surge capability
- Epitaxial construction
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Dual rectifier construction, positive center-tap

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



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 1020T	SBP 1030T	SBP 1035T	SBP 1040T	SBP 1045T	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	35	40	45	V
Maximum RMS Voltage	14	21	24.5	28	31.5	V
Maximum DC Blocking Voltage	20	30	35	40	45	V
Maximum Average Forward Rectified Current See Figure 1	10.0					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	100					A
Maximum Instantaneous Forward Voltage Per Leg $I_f = 5.0A$, $T_c = 25^\circ C$ (Note 3)	.55					V
Maximum Average Reverse Current at Rated DC Blocking Voltage per element $T_c = 25^\circ C$	3.5					mA
Typical Thermal Resistance $R_{\theta JC}$ (Note 1)	3.0					$^\circ C/W$
Typical Junction Capacitance (Note 2)	650					pF
Operating Temperature Range, T_c	-65 to +125					$^\circ C$
Storage Temperature Range, T_{stg}	-65 to +150					$^\circ C$

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

T.23-07

**RATING AND CHARACTERISTIC CURVES
SBP10-T SERIES**

FIG. 1 — FORWARD CURRENT DERATING CURVE

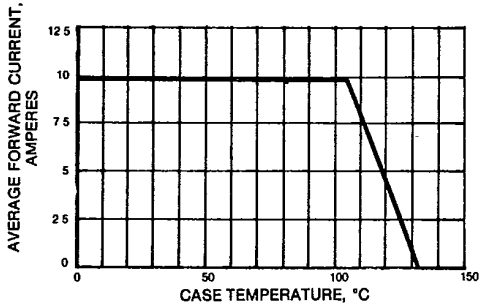


FIG. 2 — TYPICAL REVERSE CHARACTERISTICS

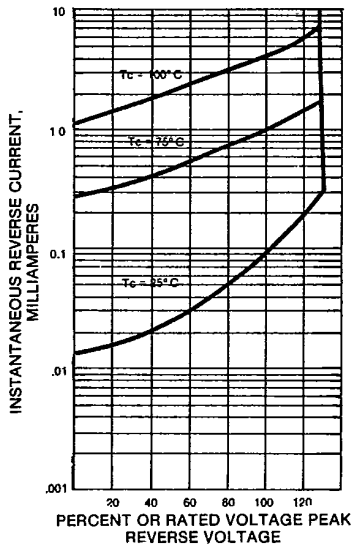


FIG. 3 — MAXIMUM NON-REPETITIVE SURGE CURRENT

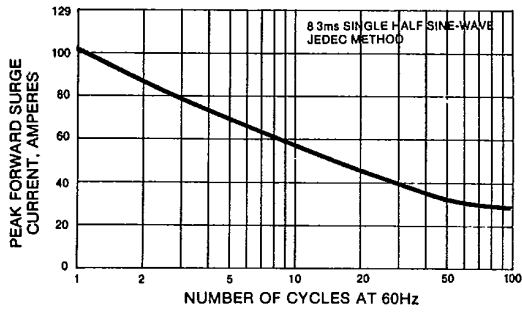


FIG. 4 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

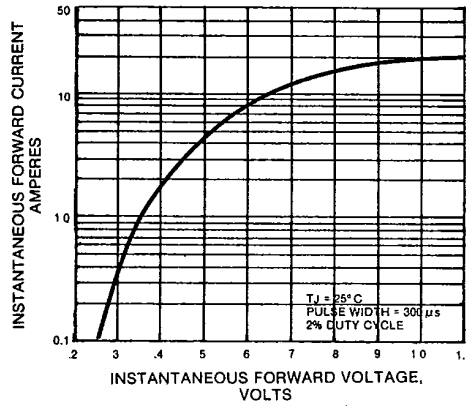


FIG. 5 — TYPICAL JUNCTION CAPACITANCE

