

T-23-07

SLP20-P SERIES

SCHOTTKY RECTIFIER

**GENERAL
INSTRUMENT****FEATURES**

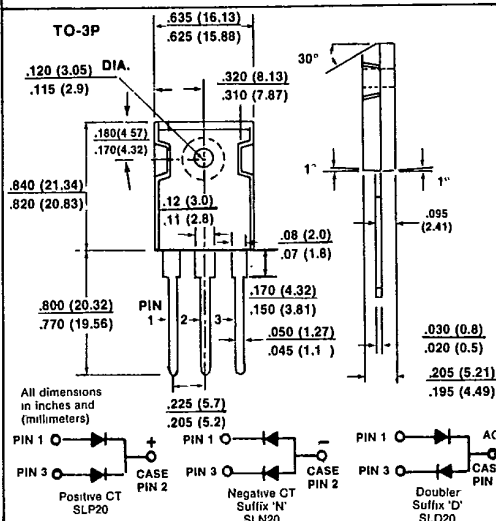
- Dual rectifier construction, positive center-tap
- Plastic material used carries Underwriters Laboratory Flammability Classification 94V-0
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low V_f
- High surge capability
- Epitaxial construction
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 250°C/10 seconds/.17 (4.3mm) lead lengths at 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: TO-3P, molded plastic
 Terminals: Lead solderable per MIL-STD-202, Method 208
 Polarity: As marked
 Mounting Position: Any
 Weight: .47 ounces, 13.2 ounces

VOLTAGE RANGE
 20 to 45 Volts

CURRENT
 20 Amperes

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified
 Resistive or inductive load.
 For capacitive load, derate current by 20%.

	SLP 2020P	SLP 2030P	SLP 2035P	SLP 2040P	SLP 2045P	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	35	40	45	V_{RRM}
Maximum RMS Voltage	14	21	24.5	28	31.5	V_{RMS}
Maximum DC Blocking Voltage	20	30	35	40	45	V_{DC}
Maximum Average Forward Rectified Current at $T_c = 95^\circ\text{C}$	20					$A_{(AV)}$
Peak Forward Surge Current, 8.3ms single half sine- wave superimposed on rated load (JEDEC Method)	120					A_{pk}
Maximum Instantaneous Forward Voltage Per Leg $I_f = 10\text{A}$, $T_c = 25^\circ\text{C}$ (Note 3)	.55					V_{pk}
Maximum Average Reverse Current at $T_c = 25^\circ\text{C}$ Rated DC Blocking Voltage per element $T_c = 100^\circ\text{C}$	1.0 75					mA mA
Typical Thermal Resistance $R_{\theta JC}$ (Note 1)	1.5					$^\circ\text{C/W}$
Typical Junction Capacitance (Note 2)	1700					pF
Operating and Storage Temperature Range T_c , T_{stg}	-40 to +125					$^\circ\text{C}$

NOTES

1. Thermal Resistance from Junction to Case.
2. Measured at 1 MHz and applied reverse voltage of 40 volts.
3. 300 μs Pulse Width, 2% Duty Factor.

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RATING AND CHARACTERISTIC CURVES
SLP20-P

FIG. 1 — FORWARD CURRENT DERATING CURVE

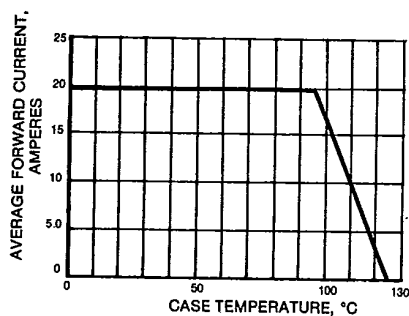


FIG. 2 — TYPICAL REVERSE CHARACTERISTICS

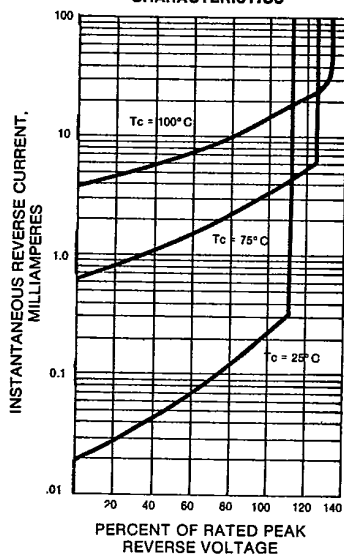


FIG. 3 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

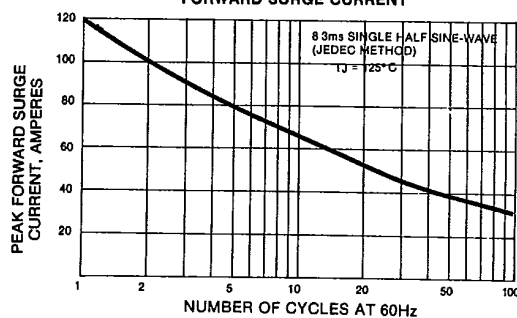


FIG. 4 — TYPICAL FORWARD CHARACTERISTICS

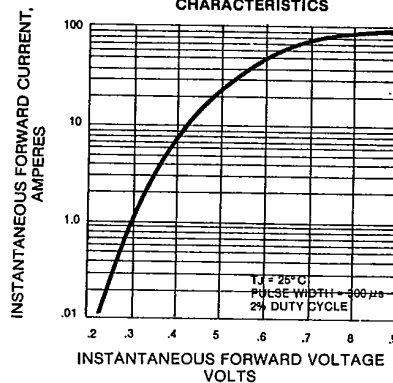


FIG. 5 — TYPICAL JUNCTION CAPACITANCE

