

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 100 Volts CURRENT 1.0 Ampere

FEATURES

- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

MECHANICAL DATA

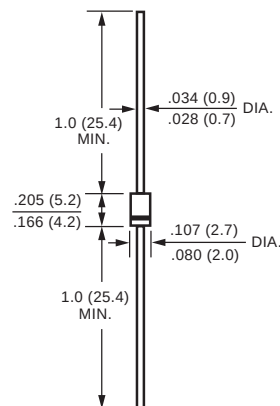
- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.33 gram

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%.



DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	SR120	SR130	SR140	SR150	SR160	SR180	SR1100	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length	I_O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	40							Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Typical Junction Capacitance (Note 2)	C_J	110							pF
Operating Temperature Range	T_J	-55 to + 150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150							$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	SR120	SR130	SR140	SR150	SR160	SR180	SR1100	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V_F	.55			.70		.85		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I_R	1.0			10				mAmps
									mAmps

NOTES : 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (SR120 THRU SR1100)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

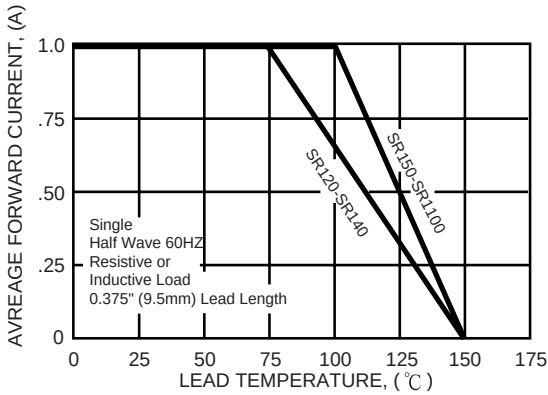


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

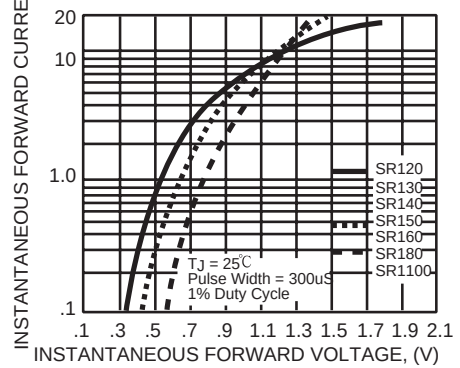


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

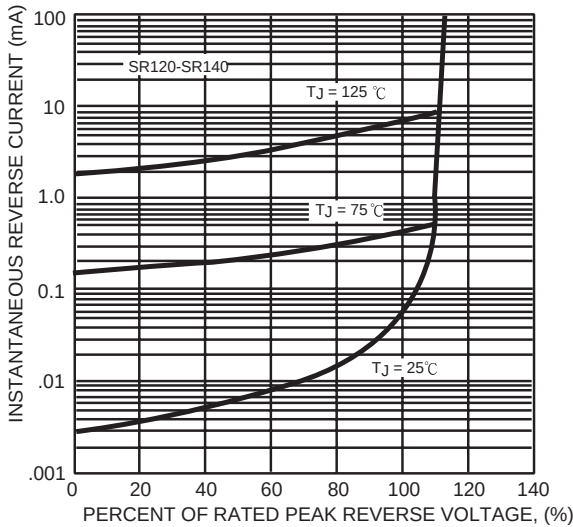


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

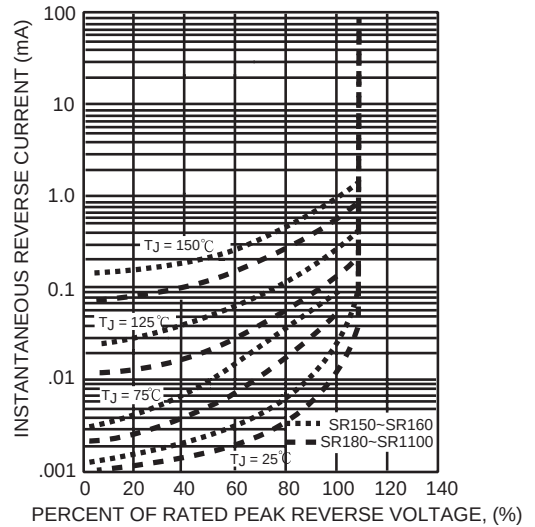


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

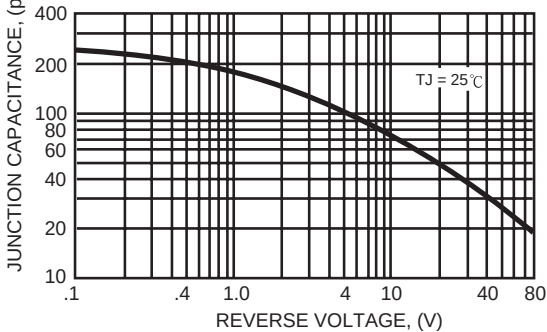


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

