

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 80 to 100 Volts CURRENT 5.0 Amperes

FEATURES

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

MECHANICAL DATA

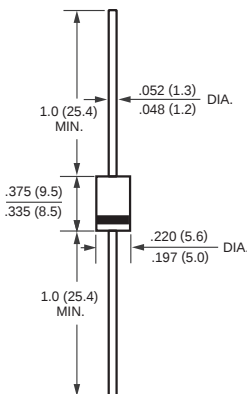
- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 1.18 grams

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%.



DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (At Ta = 25°C unless otherwise noted)

RATINGS	SYMBOL	SR580	SR590	SR5100	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	80	90	100	Volts
Maximum RMS Voltage	V _{RMS}	56	63	70	Volts
Maximum DC Blocking Voltage	V _{DC}	80	90	100	Volts
Maximum Average Forward Rectified Current .375 (9.5mm) lead length at TL=90 °C	I _O		5.0		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}		150		Amps
Typical Thermal Resistance (Note 1)	R _{θJA}		18		°C/W
Typical Junction Capacitance (Note 2)	C _J		200		pF
Operating Temperature Range	T _J		150		°C
Storage Temperature Range	T _{STG}		-55 to + 150		°C

ELECTRICAL CHARACTERISTICS (At Ta = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	SR580	SR590	SR5100	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC	V _F		.81		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage @Ta = 25°C	I _R		10		mA

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 (SR580 THRU SR5100)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

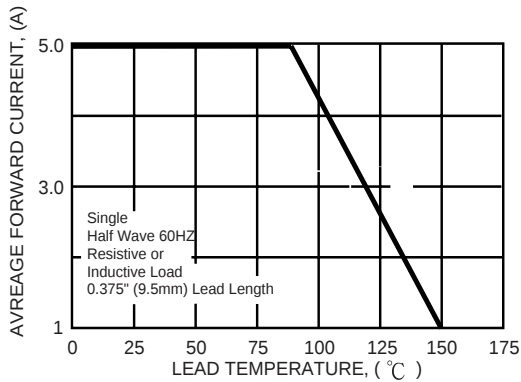


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

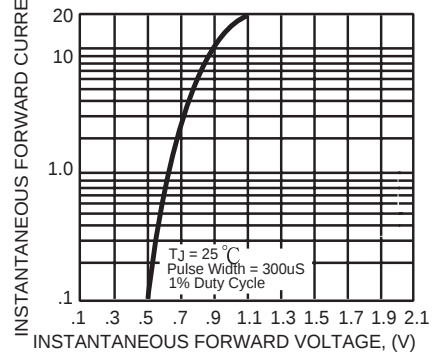


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

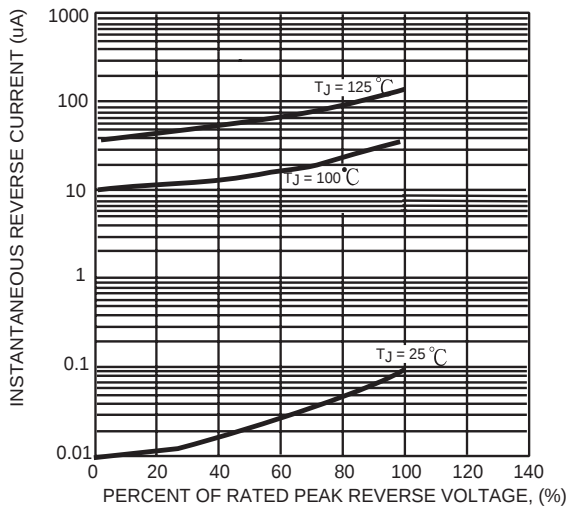


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

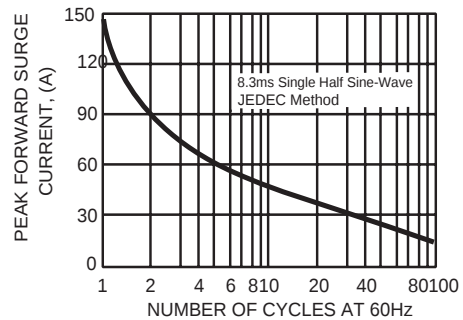


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

