

—WILLAS—

**SR520
THRU
SR560**

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 60 Volts CURRENT 5.0 Amperes

FEATURES

- * High reliability
- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"

MECHANICAL DATA

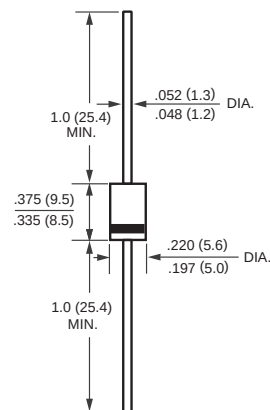
- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 1.18 grams

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	SR520	SR530	SR540	SR550	SR560	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length	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 θ J A / R θ J C	18 / 10					°C/W
Typical Junction Capacitance (Note 2)	C _J	200					pF
Operating Temperature Range	T _J	-65 to + 125			-65 to + 150		°C
Storage Temperature Range	T _{STG}	-65 to + 150					°C

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

CHARACTERISTICS	SYMBOL	SR520	SR530	SR540	SR550	SR560	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC	V _F	.55			.70		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage T _A = 25°C	I _R	0.5					mAmps

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

RATING AND CHARACTERISTIC CURVES (SR520 THRU SR560)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

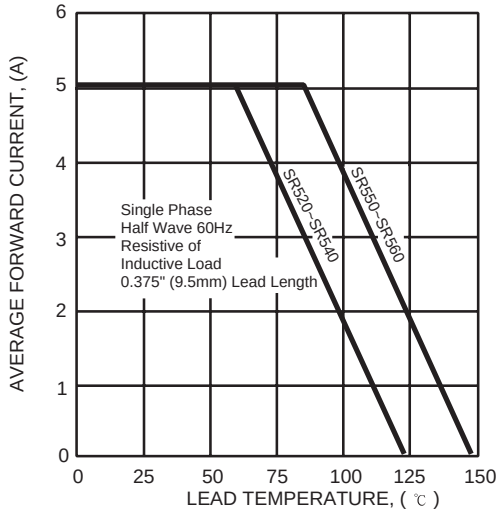


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

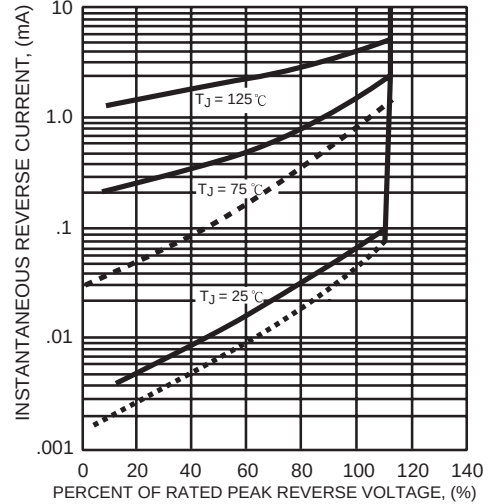


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

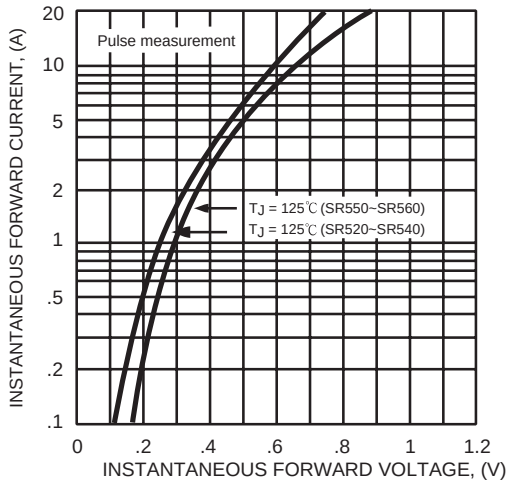


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

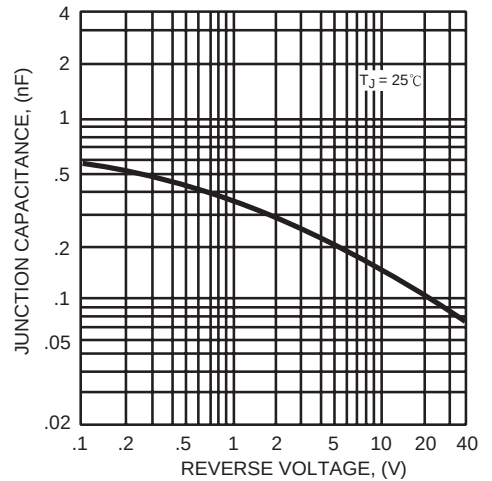


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

