

LOW Vf SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 0.5 Ampere

FEATURES

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

MECHANICAL DATA

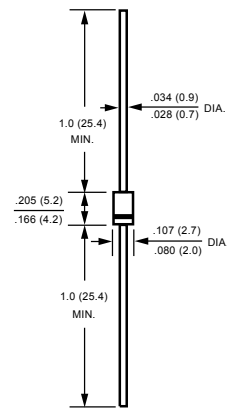
- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.33 gram

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 (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	SR0520	SR0530	SR0540	SR0550	SR0560	SR0580	SR05100	SR05150	SR05200	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at T _A =100°C	I _O	0.5									Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	60									Amps
Typical Thermal Resistance (Note 1)	R _{θJA}	50									°C/W
	R _{θJL}	15									
Typical Junction Capacitance (Note 3)	C _J	110									pF
Operating Temperature Range	T _J	150									°C
Storage Temperature Range	T _{STG}	-55 to + 150									°C

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

CHARACTERISTICS	SYMBOL	SR0520	SR0530	SR0540	SR0550	SR0560	SR0580	SR05100	SR05150	SR05200	UNITS
Maximum Instantaneous Forward Voltage at 0.5A DC	V _F	.30									Volts
Maximum Average Reverse Current @ T _A = 25°C	I _R	1.0									mA
at Rated DC Blocking Voltage @ T _A = 100°C		10									mA

NOTES : 1. Thermal Resistance : At 9.5mm lead lengths, PCB mounted.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES (SR0520 THRU SR05200)

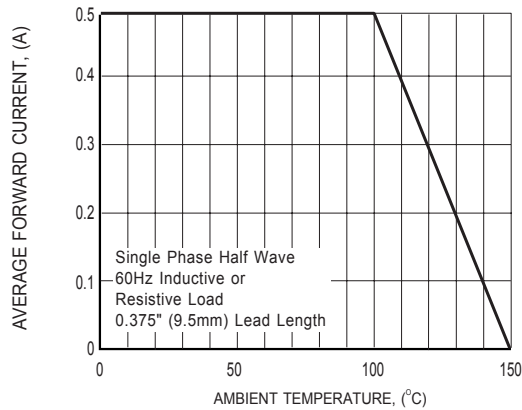


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

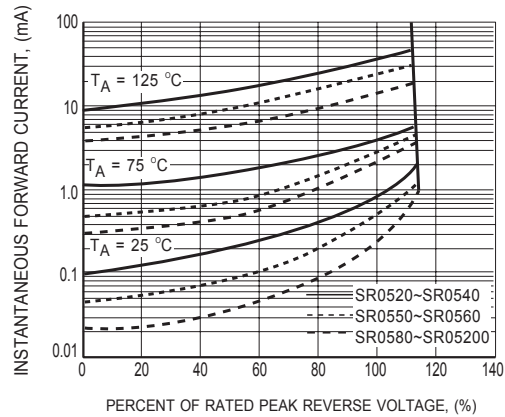


FIG.2 TYPICAL REVERSE CHARACTERISTICS

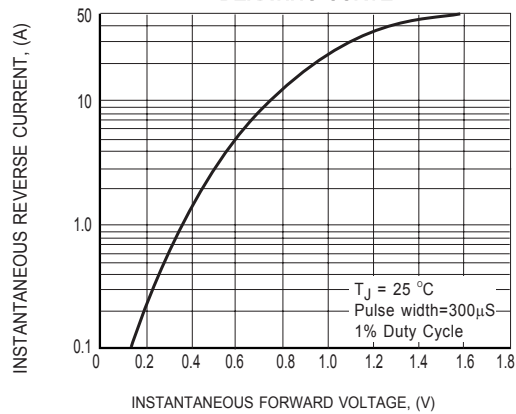


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

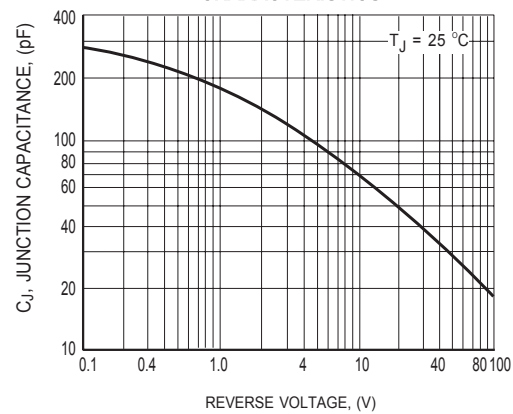


FIG.4 TYPICAL JUNCTION CAPACITANCE

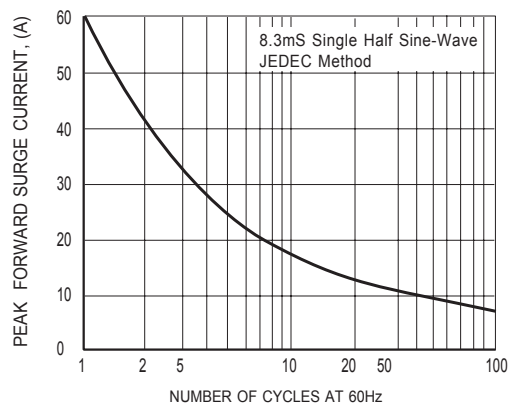


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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