

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 1.0 Ampere

FEATURES

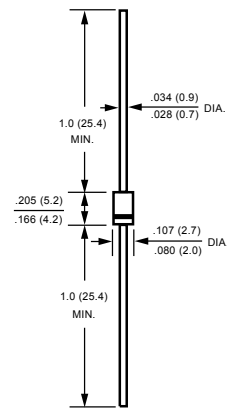
- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

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



DO-41



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%.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	SR120	SR130	SR140	SR150	SR160	SR180	SR1100	SR1150	SR1200	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 Derating Lead Temperature	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 _{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	SR120	SR130	SR140	SR150	SR160	SR180	SR1100	SR1150	SR1200	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	@T _A = 25°C		0.2							mA
		@T _A = 100°C		2							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 (SR120 THRU SR1200)

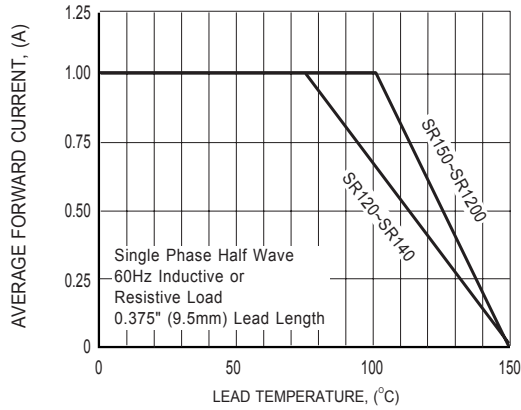


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

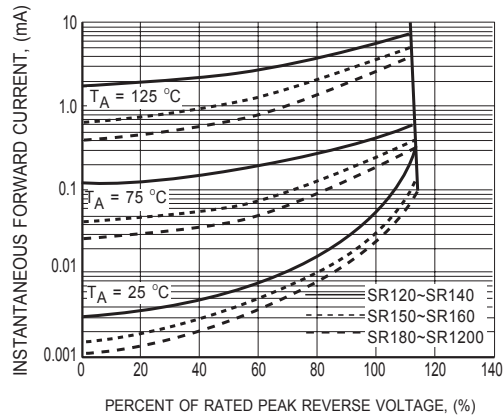


FIG.2 TYPICAL REVERSE CHARACTERISTICS

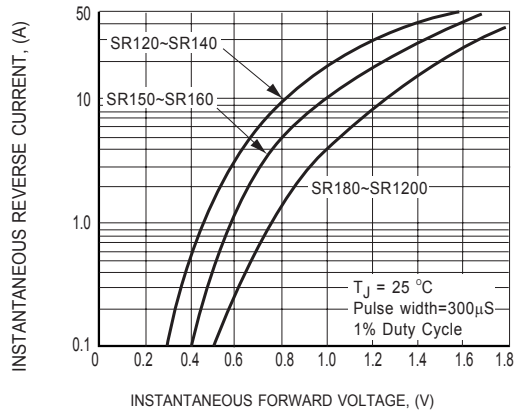


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

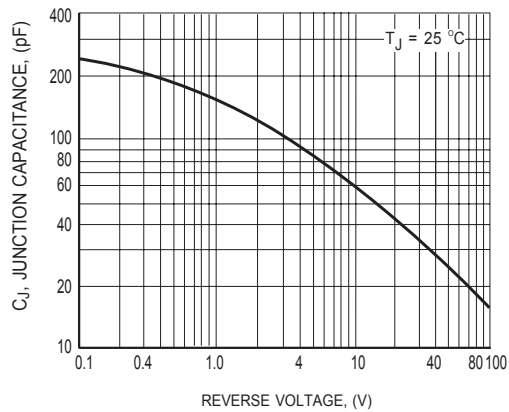


FIG.4 TYPICAL JUNCTION CAPACITANCE

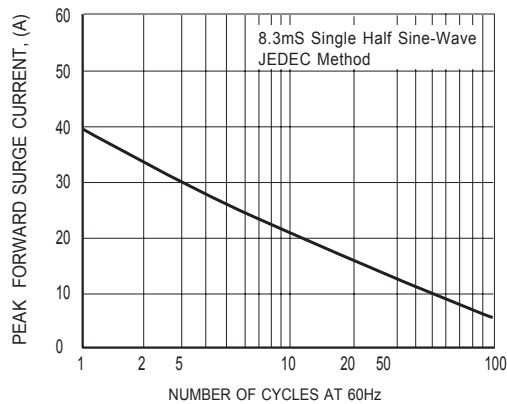


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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