II. Schottky Rectifier

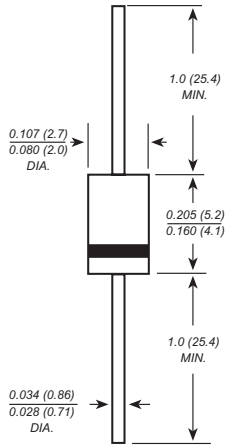
1.0A Schottky Rectifier
SR120~SR1200 (Package: DO-41)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed: 250℃/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

- Case : JEDEC DO-41 molded plastic body
- Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.33 grams, 0.012 ounce



Case: DO-41
Dimensions in inches and (millimeters)

Ratings & Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	SR 120	SR 130	SR 140	SR 150	SR 160	SR 180	SR 1100	SR 1150	SR 1200	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 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30									Amps
Maximum instantaneous forward voltage at 1.0A DC	V_F	0.55			0.70		0.85		0.95		Volts
Maximum average reverse current at rated DC blocking voltage Ta = 25°C	I_R	0.2									mA
Ta = 100°C		2									
Typical thermal resistance (Note 1)	Rth-JA	50									°C/W
	Rth-JL	15									
Typical junction capacitance (Note 2)	Cj	110			80						PF
Operating junction temperature range	Tj	-55 to +125			-55 to +150						°C
Storage temperature range	Tstg	-55 to +150									°C

Notes :
1. Thermal resistance : At 9.5mm lead lengths, PCB mounted.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

Ratings and Characteristic Curves of SR120~SR1200

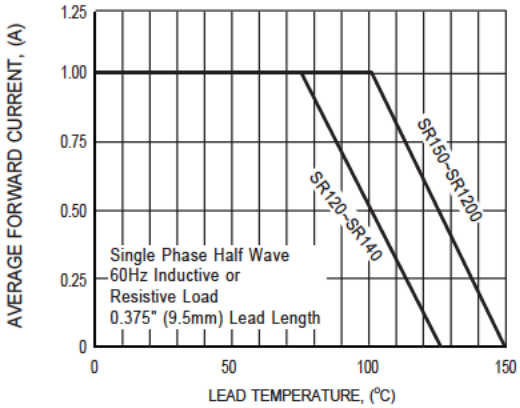


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

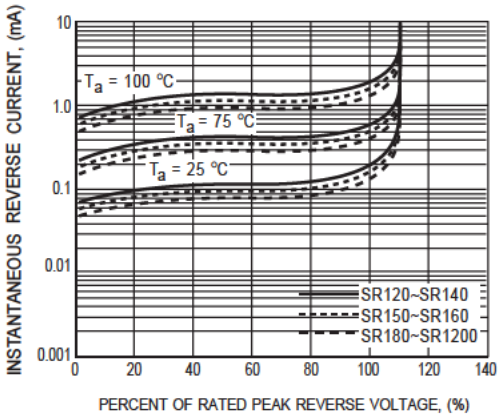


FIG.2 TYPICAL REVERSE CHARACTERISTICS

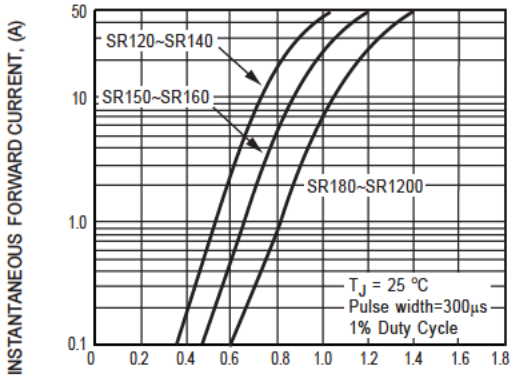


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

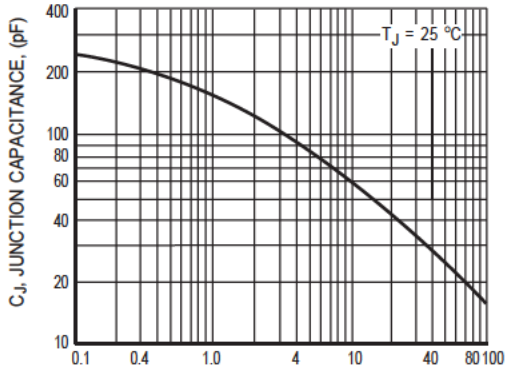


FIG.4 TYPICAL JUNCTION CAPACITANCE

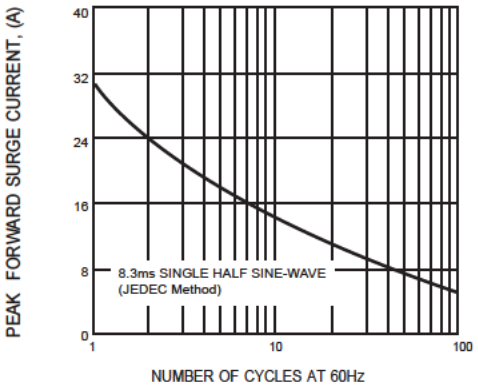


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT