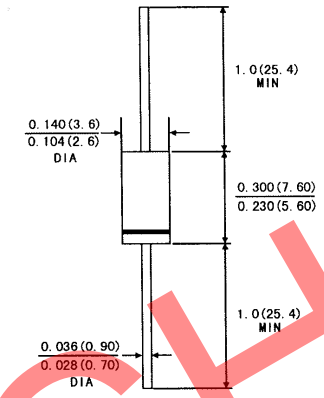
SR220 THRU SR2200

Schottky Barrier Rectifiers
Reverse Voltage – 20 to 200 V
Forward Current – 2 A

Features

- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Metal silicon junction, majority carrier conduction

DO-15



Dimensions in inches and (millimeters)

Mechanical Data

- **Case:** Molded plastic, DO-15.
- **Terminals:** Axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

Parameter	Symbols	SR220	SR230	SR240	SR250	SR260	SR280	SR2100	SR2150	SR2200	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	57	71	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum Forward Voltage at 2 A [1]	V_F	0.55			0.7		0.85		0.95		V
Maximum Average Forward Rectified Current 0.375"(9.5 mm) Lead Length at T_L = 75 °C	$I_{F(AV)}$	2									A
Peak Forward Surge Current 8.3 ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50									A
Maximum Reverse Current at Rated DC Blocking Voltage [1] T_a = 25 °C T_a = 100 °C	I_R	1 10									mA
Typical Junction Capacitance [3]	C_J	180									pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	45									°C/W
Operating JunctionTemperature Range	T_j	- 55 to + 125			- 55 to + 150						°C
Storage Temperature Range	T_{stg}	- 55 to + 150									°C

[1] Pulse test: 300 μs pulse width, 1% duty cycle
[2] Thermal resistance from junction to lead, and/or to ambient P.C.B mounted with 0.375"(9.5 mm) lead length with1.5 X 1.5"(38 mm X 38 mm) copper pads
[3] Measure at 1 MHz and reverse voltage of 4 V.

FIG.1-FORWARD CURRENT DERATING CURVE

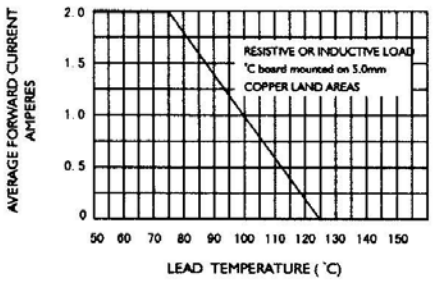


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

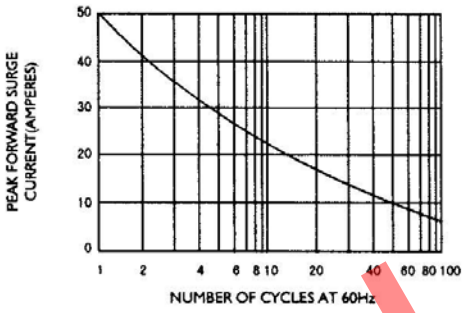


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

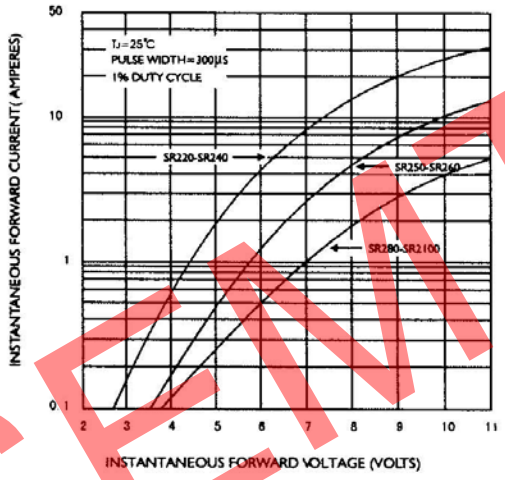


FIG.4-TYPICAL REVERSE CHARACTERISTICS

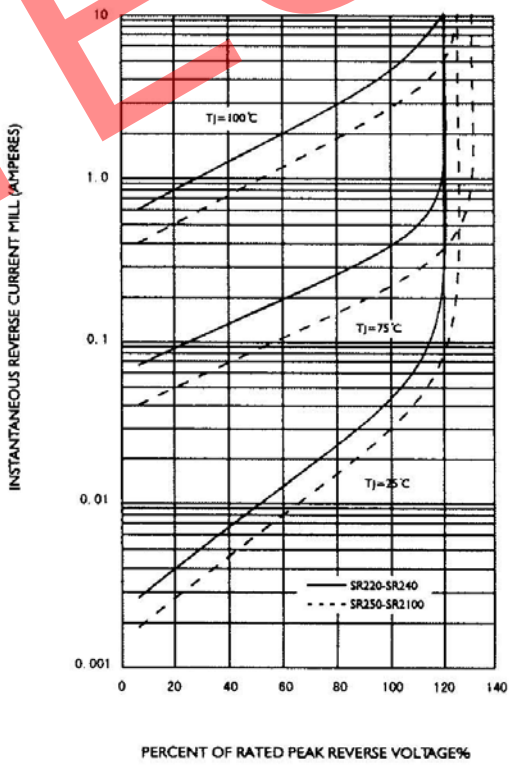


FIG.5-TYPICAL JUNCTION CAPACITANCE