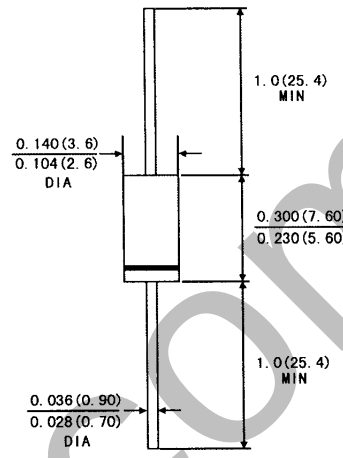
SR220 THRU SR2100

SCHOTTKY BARRIER RECTIFIERS
Reverse Voltage – 20 to 100 Volts
Forward Current – 2.0 Amperes

DO-15



Dimensions in inches and (millimeters)

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

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, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.

	Symbols	SR 220	SR 230	SR 240	SR 250	SR 260	SR 280	SR 2100	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	57	71	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum forward voltage at 2 A [1]	V_F	0.55			0.7		0.85		V
Maximum average forward rectified current 0.375"(9.5mm) lead length at T_L = 75 °C	$I_{(AV)}$	2							A
Peak forward surge current 8.3ms 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	I_R	1							mA
Maximum reverse current at rated DC blocking voltage [1] T_A = 100 °C	I_R	10							mA
Typical junction capacitance [3]	C_J	170							pF
Typical thermal resistance [2]	$R_{\theta JA}$	35							°C/W
Operating and storage temperature range	T_J ,T_S	-65 to +125							°C

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

RATINGSAND CHARACTERISTIC CURVES SR220 THRU SR2100

FIG.1-FORWARD CURRENT DERATING CURVE

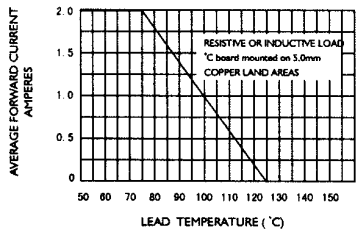


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

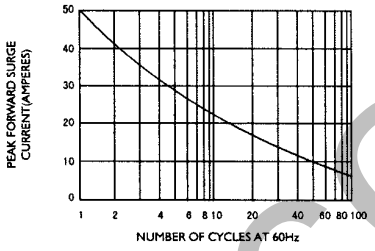


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

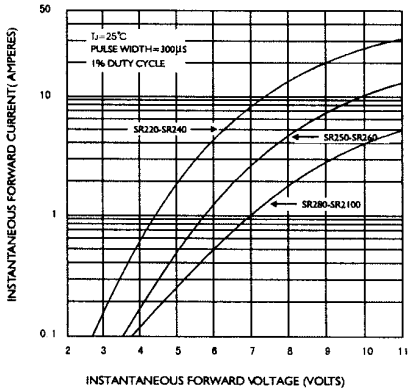


FIG.4-TYPICAL REVERSE CHARACTERISTICS

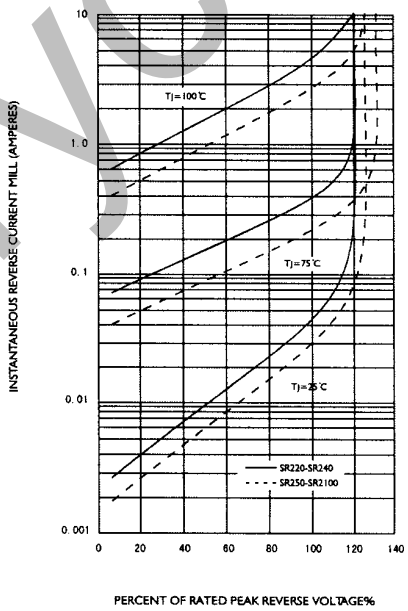


FIG.5-TYPICAL JUNCTION CAPACITANCE