

SR220 THRU SR2100

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage – 20 to 100 Volts

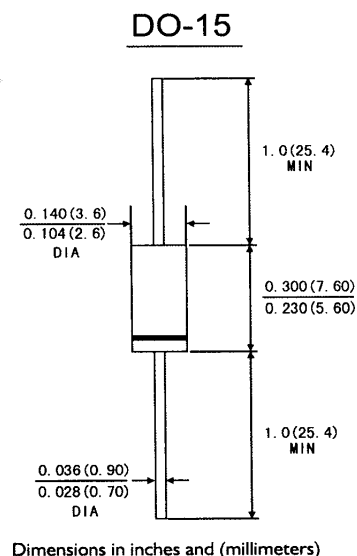
Forward Current – 2.0 Amperes

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

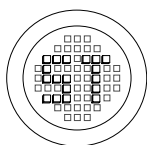
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.

	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	1 10							mA
	T _A = 100 °C								
Typical junction capacitance ³⁾	C _J	170							pF
Typical thermal resistance ²⁾	R _{θJA}	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

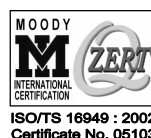
²⁾ Thermal resistance from junction to lead, and/or to ambient P.C.B mounted with 0.375"(9.5mm) lead length with 1.5 X 1.5"(38mm X 38mm) copper pads

³⁾ Measure at 1MHz and reverse voltage of 4V.



SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 09/11/2005 J

RATINGS AND CHARACTERISTIC CURVES SR220 THRU SR2100

FIG.1-FORWARD CURRENT DERATING CURVE

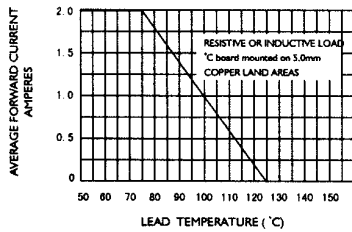


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

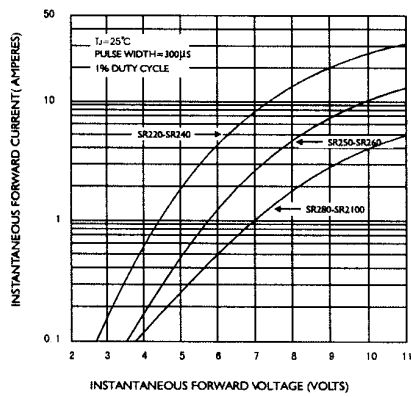


FIG.5-TYPICAL JUNCTION CAPACITANCE

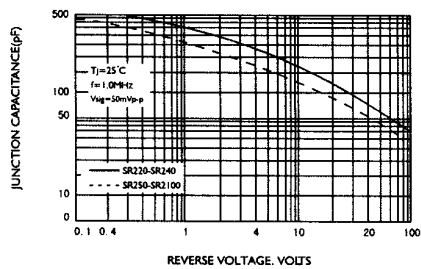


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

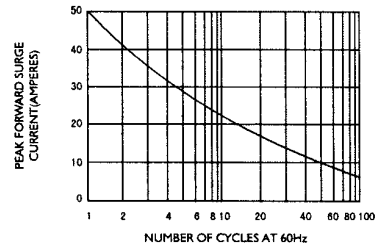
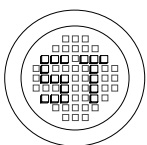
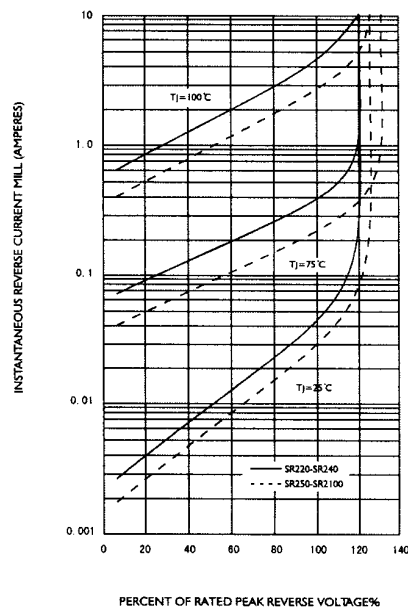
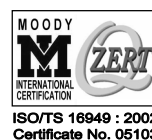


FIG.4-TYPICAL REVERSE CHARACTERISTICS



SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 09/11/2005 J