



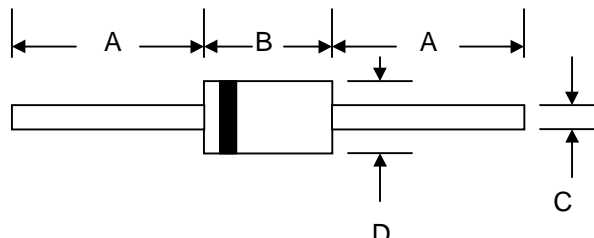
# SR120 – SR1200



## 1.0A SCHOTTKY BARRIER DIODE

### Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



### Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version,**

DO-41		
Dim	Min	Max
A	25.4	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	SR120	SR130	SR140	SR150	SR160	SR180	SR1100	SR1150	SR1200	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	20	30	40	50	60	80	100	150	200	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	56	70	105	140	V
Average Rectified Output Current      @T <sub>L</sub> = 100°C (Note 1)	I <sub>O</sub>	1.0									A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	40									A
Forward Voltage                                      @I <sub>F</sub> = 1.0A	V <sub>FM</sub>	0.50			0.70		0.85		0.90	0.95	V
Peak Reverse Current                                      @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage                                      @T <sub>A</sub> = 100°C	I <sub>RM</sub>	0.5 10									mA
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	110			80						pF
Typical Thermal Resistance (Note 1)	R <sub>θJL</sub> R <sub>θJA</sub>	15 50									°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150									°C

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



# SR120 – SR1200

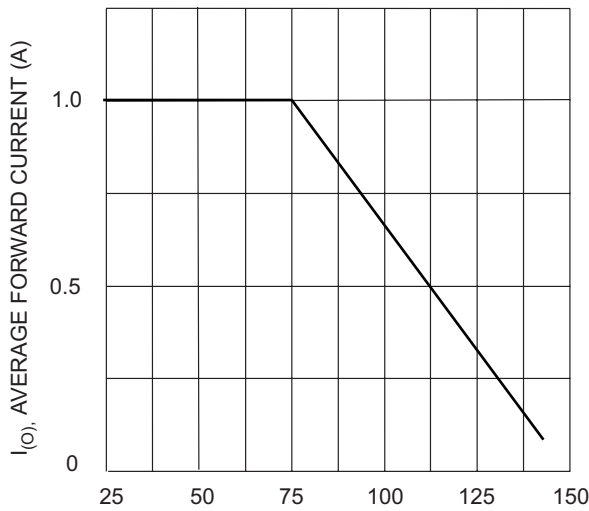


Fig. 1 Forward Current Derating Curve

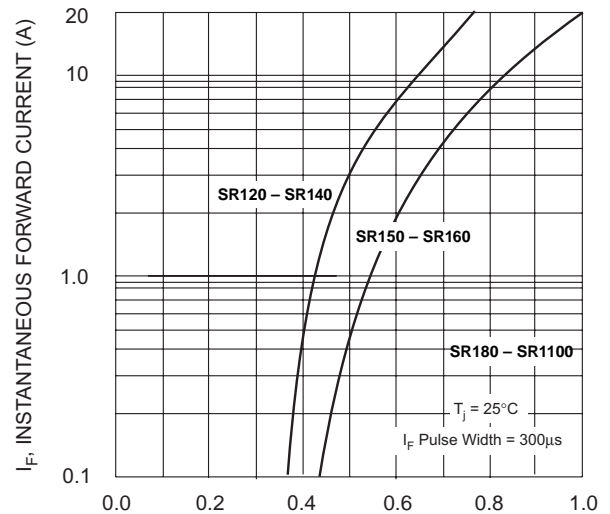


Fig. 2 Typical Forward Characteristics

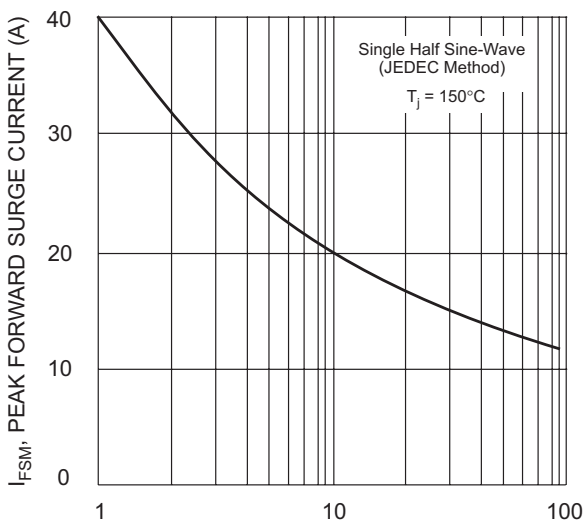


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

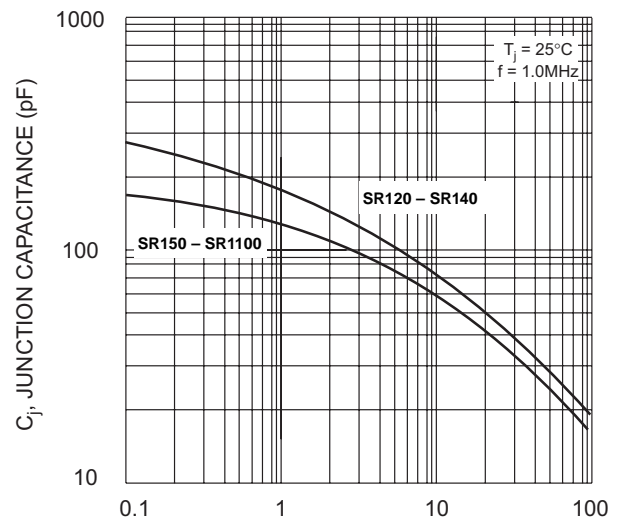


Fig. 4 Typical Junction Capacitance

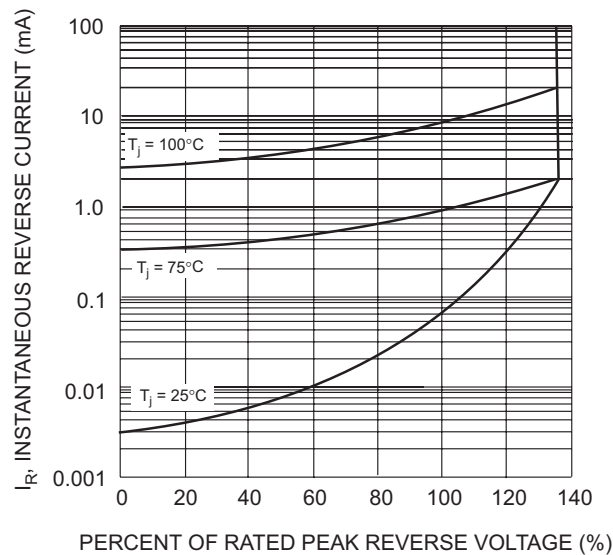


Fig. 5 Typical Reverse Characteristics