

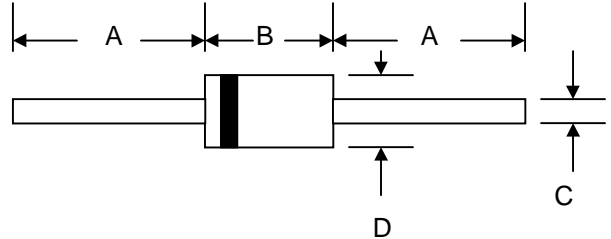


## SR120 – SR1200

### 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	24.5	—
B	4.06	5.21
C	0.60	0.80
D	2.00	3.00
All Dimensions in mm		

#### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ 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	$V_{RRM}$										V	
Working Peak Reverse Voltage	$V_{RWM}$	20	30	40	50	60	80	100	150	200		
DC Blocking Voltage	$V_R$											
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	70	105	140	V	
Average Rectified Output Current @ $T_L = 75^\circ\text{C}$	$I_O$	1.0									A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30									A	
Forward Voltage @ $I_F = 1.0\text{A}$	$V_{FM}$	0.55			0.70		0.85		0.90		V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	0.1 20						0.05 10			mA	
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$ $R_{\theta JA}$	28 88										$^\circ\text{C/W}$
Operating Temperature Range	$T_j$	-55 to +150									$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to +150									$^\circ\text{C}$	

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.

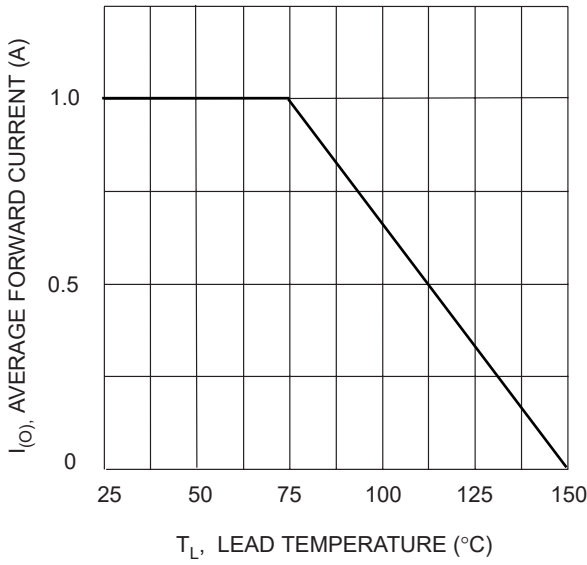


Fig. 1 Forward Current Derating Curve

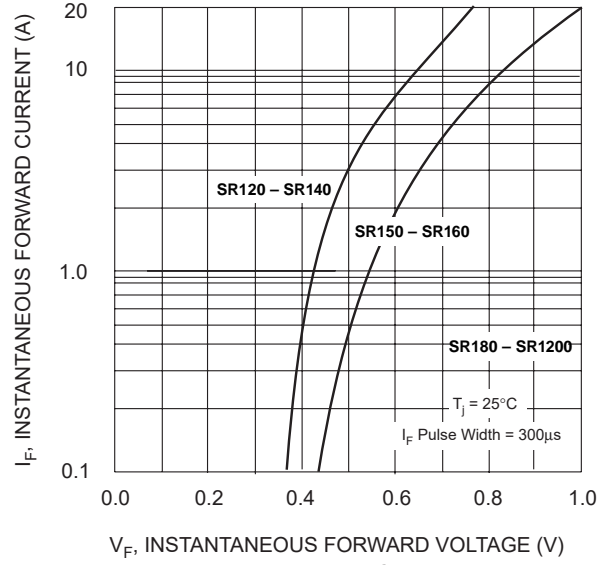


Fig. 2 Typical Forward Characteristics

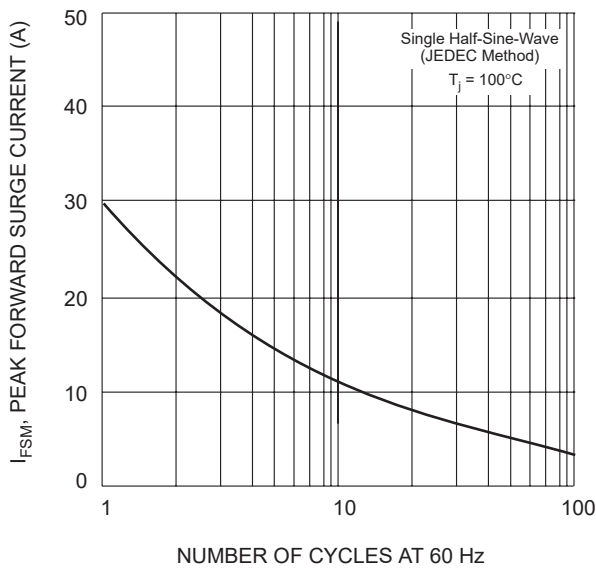


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

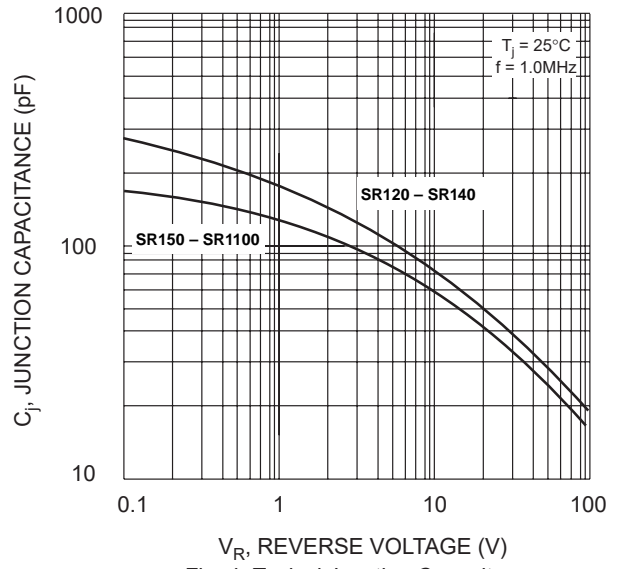


Fig. 4 Typical Junction Capacitance

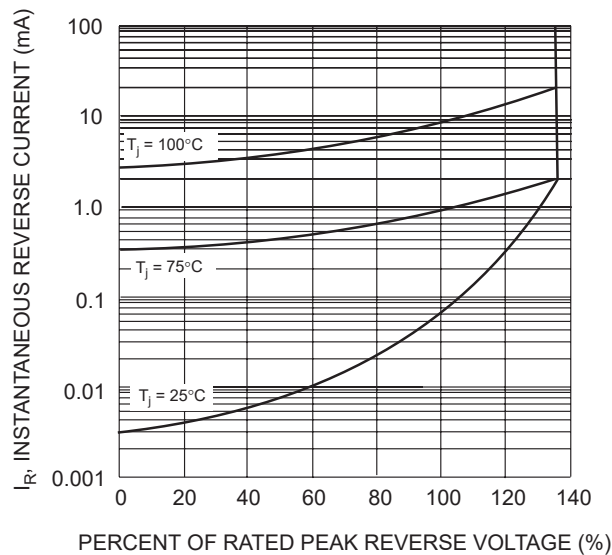


Fig. 5 Typical Reverse Characteristics