

# SR120 THRU SR1200

## SCHOTTKY BARRIER RECTIFIER



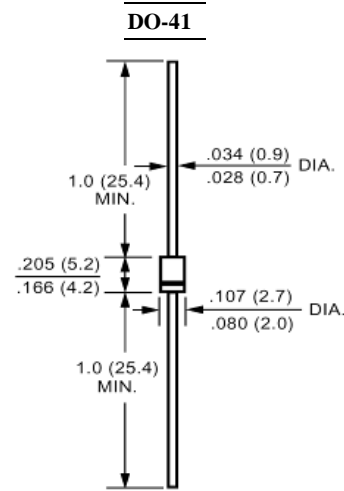
**REVERSE VOLTAGE:** 20 to 200 VOLTS  
**FORWARD CURRENT:** 1.0 AMPERE

### FEATURES

- High current capability
- High surge current capability
- Low forward voltage drop
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling, and porlarlity protection applications

### MECHANICAL DATA

Case: Molded plastic, DO-41  
 Epoxy: UL 94V-O rate flame retardant  
 Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed  
 Polarity: Color band denotes cathode end  
 Mounting position: Any  
 Weight: 0.012ounce, 0.33gram



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	SR120	SR130	SR140	SR150	SR160	SR180	SR1100	SR1150	SR1200	Units	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	Volts	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length	$I_{AV}$	1.0									Amp	
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30									Amp	
Maximum Forward Voltage at 1.0A DC and 25°C	$V_F$	0.55			0.70		0.85		0.95		Volts	
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	0.5									mAmp	
Typical Junction Capacitance (Note 1)	$C_J$	110									pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50									°C/W	
Operating Junction Temperature Range	$T_J$	-55 to +125				-55 to +150						°C
Storage Temperature Range	$T_{stg}$	-55 to +150									°C	

### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance From Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted with 0.22x0.22" (5.5x5.5mm) copper pads

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### RATINGS AND CHARACTERISTIC CURVES

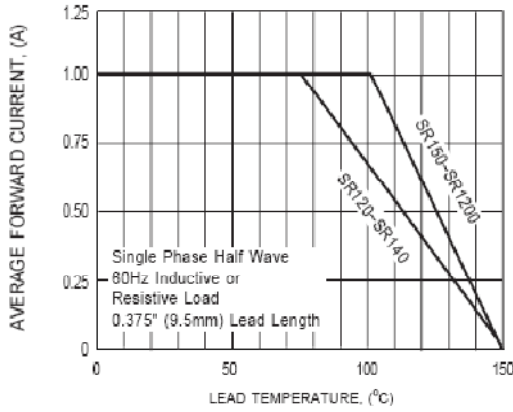


FIG. 1 TYPICAL FORWARD CURRENT DERATING CURVE

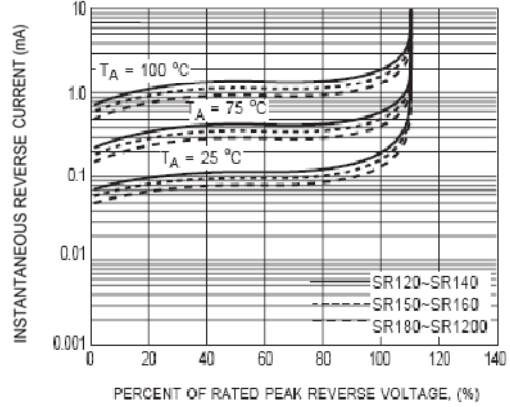


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

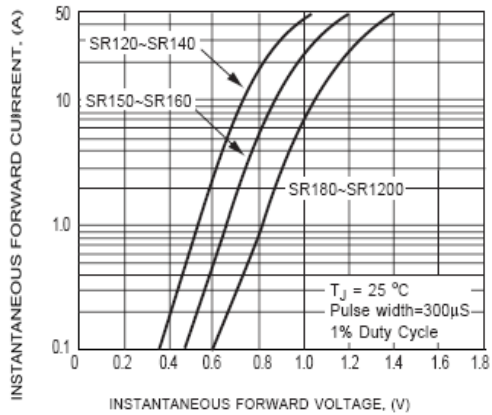


FIG. 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

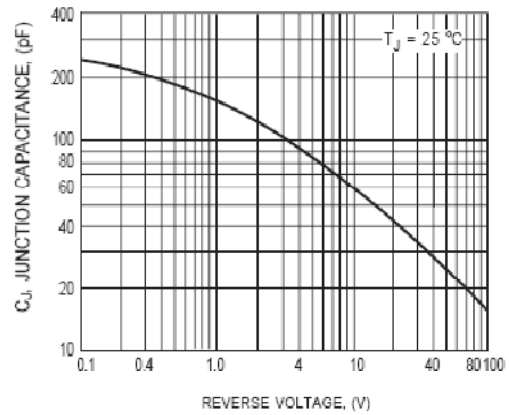


FIG. 4 TYPICAL JUNCTION CAPACITANCE

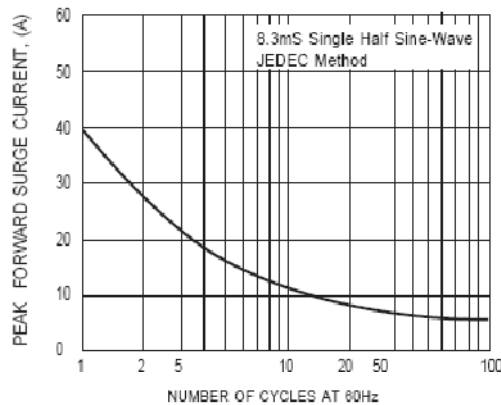


FIG. 5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT