



## SCHOTTKY BARRIER RECTIFIER

SR120 THRU SR1150

VOLTAGE RANGE  
CURRENT

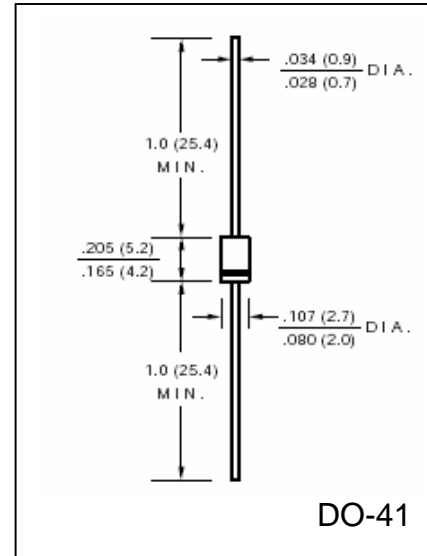
20 to 150 Volts  
1.0 Ampere

### FEATURES

- Fast switching
- Low forward voltage
- Low power loss for high efficiency
- High Surge capability
- High temperature Soldering guaranteed:  
250 °C/10 seconds, 0.373" (9.5mm) lead length

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-202E Method 208C
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012 ounce, 0.33 gram



### 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	UNIT	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	Volts	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	Volts	
Maximum Average Forward Rectified Current, 0.375" (9.5mm) lead length, (Note 1) $T_L = 90^\circ\text{C}$ (SR102-104), $T_L = 110^\circ\text{C}$ (SR105-1150).	$I_{(AV)}$	1.0								Amps	
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	40								Amps	
Maximum Instantaneous Forward Voltage @ 1.0A	$V_F$	0.55			0.70		0.85			Volts	
Maximum DC Reverse Current at Rated $T_A = 25^\circ\text{C}$ DC Blocking Voltage per element (Note 1) $T_A = 100^\circ\text{C}$	$I_R$	1.0								mA	
		10									
Typical Junction Capacitance (Note 3)	$C_J$	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)									

### Notes:

1. Pulse test: 300µS pulse width, 1% duty cycle
2. Thermal resistance from junction to ambient PCB mounted with 0.375" (9.5mm) lead length with 1.5" x 1.5" (38cm 38cm) copper pads
3. Measured at 1.0MHz and applied reverse voltage of 4.0V



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### RATINGS AND CHARACTERISTIC CURVES SR120 THRU SR1150

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

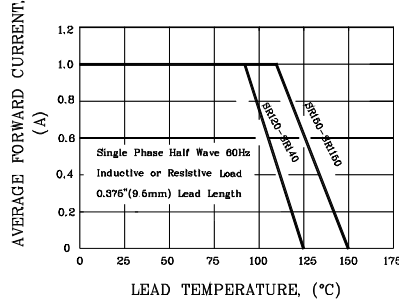


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

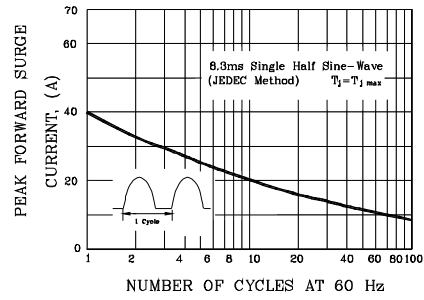


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

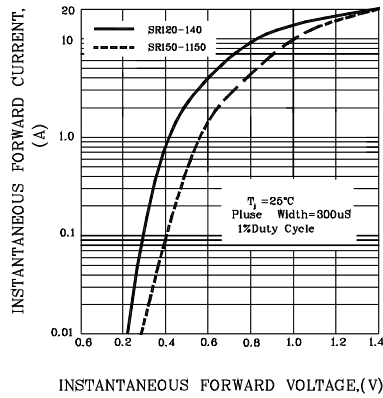


FIG.4-TYPICAL REVERSE CHARACTERISTICS

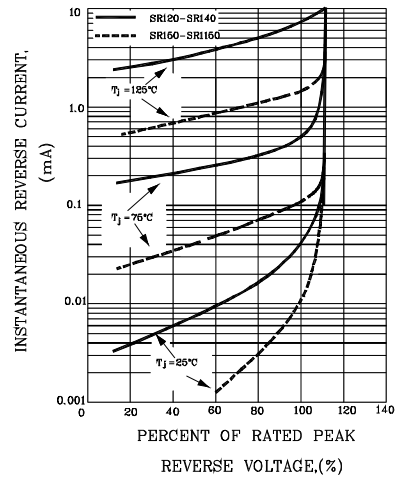


FIG.5-TYPICAL JUNCTION CAPACITANCE

