

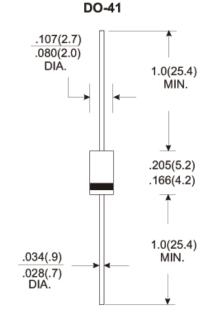
## SCHOTTKY BARRIER RECTIFIER SR120 THRU SR1200 20 to 200 V 1.0 A

#### **Features**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- · Metal silicon junction ,majority carrier conduction
- Guard ring for over voltage protection
- · Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- · High surge capability
- For use in low voltage ,high frequency inverters,
   Free wheeling ,and polarity protection applications
- High temperature soldering guaranteed: 250°C/10 seconds at terminals.
- 0.375"(9.5mm)lead length,5lbs.(2.3kg)tension

#### **Mechanical Data**

- Case: JEDEC DO-41 molded plastic body
- Terminals: solder plated ,solder able per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012ounce,0.33 gram



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	SR140	SR150	SR160	SR1100	SR1150	SR1200	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	40	50	60	100	150	200	Volts
Maximum RMS Voltage	$V_{RMS}$	14	28	35	42	70	105	140	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	40	50	60	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length	I <sub>(AV)</sub>	1.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	40.0							Amp
Maximum instantaneous forward voltage at1.0 A(Note 1)	$V_{F}$	0.55		0.	70	0.85	0.90	0.95	Volts
Maximum Reverse Current $T_A {=} 25^{\circ}\!$	$I_R$	0.5							- m <b>Amp</b>
		10							
Typical junction capacitance(Note 3)	C <sub>J</sub>	110							₽F
Typical Thermal Resistance (Note 2)	R <sub>☉</sub> JA	50.0							°C/W
	R⊚JL	15.0							
Operating Temperature Range	TJ	-65 to +150							$^{\circ}$
Storage Temperature Range	T <sub>STG</sub>	-65 to +150							$^{\circ}$

#### NOTES:

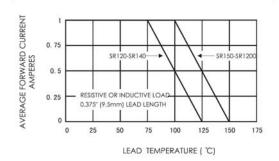
- 1. Pulse test: 300 µs pulse width, 1% duty cycle
- 2. Thermal resistance (from junction to ambient) Vertical P.C.B. mounted, with 1.5 X1.5"(38X38mm) copper pads
- 3. Measured at 1.0MHz and reverse voltage of 4.0 volts
- 4. SR1A0=SR1100



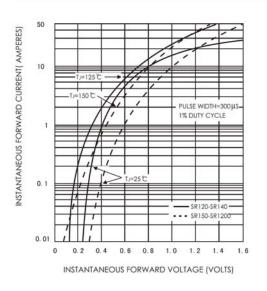
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### **RATINGS AND CHARACTERISTIC CURVES (SR120 THRU SR1200)**

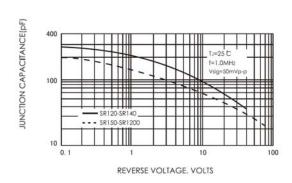
#### FIG.1-FORWARD CURRENT DERATING CURVE



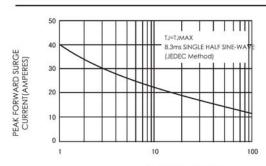
## FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



#### FIG.5-TYPICAL JUNCTION CAPACITANCE

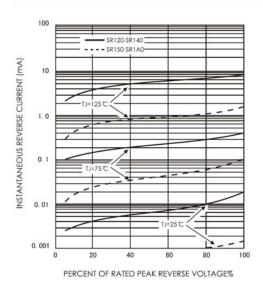


### FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60Hz

#### FIG.4-TYPICAL REVERSE CHARACTERISTICS



#### FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

