

# SR1202 - SR1204

## 12.0 AMPS. Schottky Barrier Rectifiers

### DO-201AD

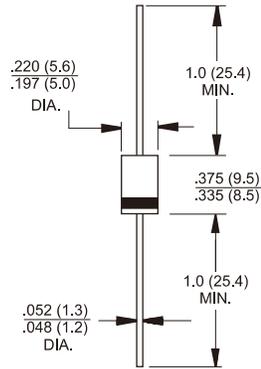


### Features

- ✧ Low power loss, high efficiency.
- ✧ High current capability, Low VF.
- ✧ High reliability
- ✧ High surge current capability.
- ✧ Epitaxial construction.
- ✧ Guard-ring for transient protection.
- ✧ For use as Bypass diode in Solar application.
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

### Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Epoxy: UL 94V-O rate flame retardant
- ✧ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode.
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375",(.9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 1.10 grams



### Dimensions in inches and (millimeters)

Marking Diagram



- SR120X = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number	Symbol	SR1202	SR1203	SR1204	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	V
Maximum Average Forward Rectified Current .R-load @ T <sub>A</sub> = 50 °C (Note 2)	I <sub>F(AV)</sub>	12			A
Repetitive Peak Forward Current f > 15 Hz (Note 2)	I <sub>FRM</sub>	55			A
Peak Forward Surge Current, 50/60 Hz Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	I <sub>FSM</sub>	280 / 320			A
Maximum Instantaneous Forward Voltage @ 5.0A @ T <sub>A</sub> =25 °C	V <sub>F</sub>	0.45 0.55			V
Maximum DC Reverse Current @ T <sub>A</sub> =25°C at Rated DC Blocking Voltage (Note 1) @ T <sub>A</sub> =100°C	I <sub>R</sub>	500 20			uA mA
Rating for fusing t < 10ms @ T <sub>A</sub> =25 °C	I <sup>2</sup> t	390			A <sup>2</sup> S
Maximum Thermal Resistance	R <sub>θJA</sub> R <sub>θJL</sub>	24 3			°C/W
Junction Temperature Range - in DC forward mode	T <sub>J</sub>	-50 to +150 <=200			°C
Storage Temperature Range	T <sub>STG</sub>	-50 to +175			°C

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle

2. Valid, if leads are kept at ambient temperature at a distance of 10 mm from case.

Version: C10

RATINGS AND CHARACTERISTIC CURVES (SR1202 THRU SR1204)

FIG.1 Rated Forward Current vs Ambient Temp. Curve

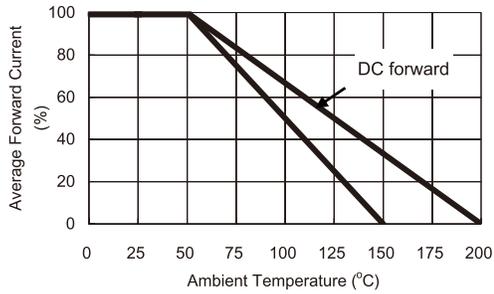


FIG 2 Maximum Forward Surge Current

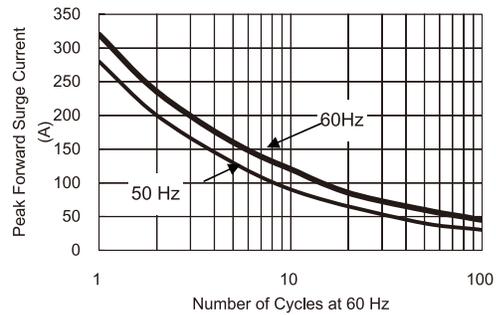


FIG 3 Typical Forward Characteristics

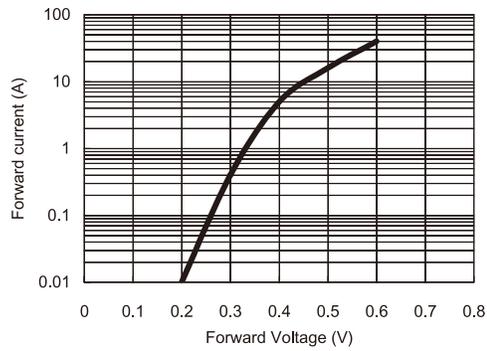


FIG 4 Typical Reverse Characteristics

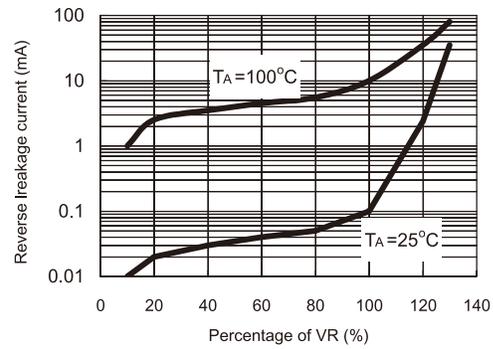


FIG 5 Typical Junction Capacitance

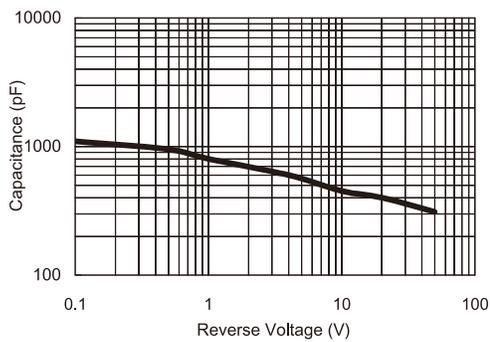


FIG 6 Typical Transient Thermal Resistance

