

SR1202 - SR1204

12.0 AMPS. Schottky Barrier Rectifiers

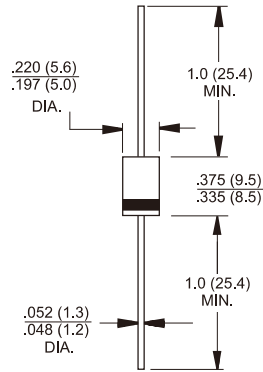
DO-201AD

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_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current .R-load @ $T_A = 50^\circ\text{C}$ (Note 2)	$I_{F(AV)}$	12			A
Repetitive Peak Forward Current $f > 15\text{ Hz}$ (Note 2)	I_{FRM}	55			A
Peak Forward Surge Current, 50/60 Hz Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	280 / 320			A
Maximum Instantaneous Forward Voltage @ 5.0A @ $T_A = 25^\circ\text{C}$	V_F	0.45 0.55			V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage (Note 1) @ $T_A = 100^\circ\text{C}$	I_R	500 20			μA mA
Rating for fusing $t < 10\text{ms}$ @ $T_A = 25^\circ\text{C}$	I^2t	390			A^2S
Maximum Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	24 3			$^\circ\text{C/W}$
Junction Temperature Range - in DC forward mode	T_J	-50 to +150 ≤ 200			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-50 to +175			$^\circ\text{C}$

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

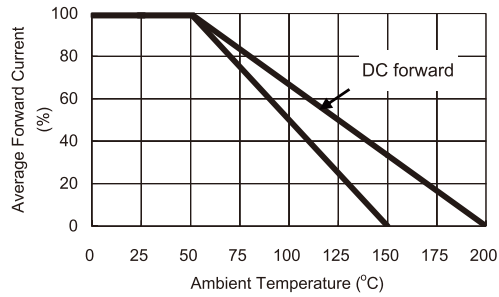


FIG 2 Maximum Forward Surge Current

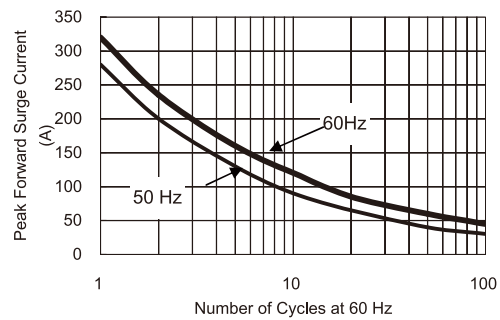


FIG 3 Typical Forward Characteristics

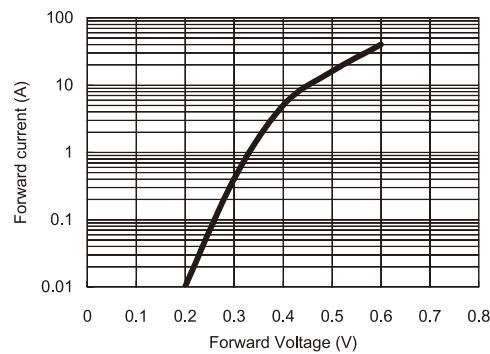


FIG 4 Typical Reverse Characteristics

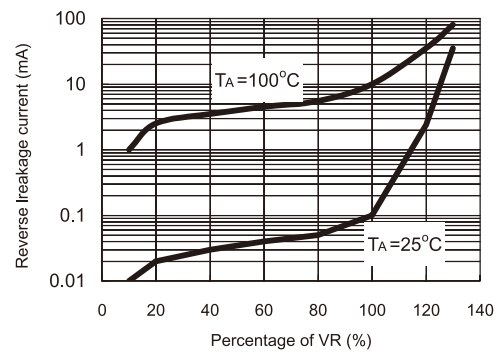


FIG 5 Typical Junction Capacitance

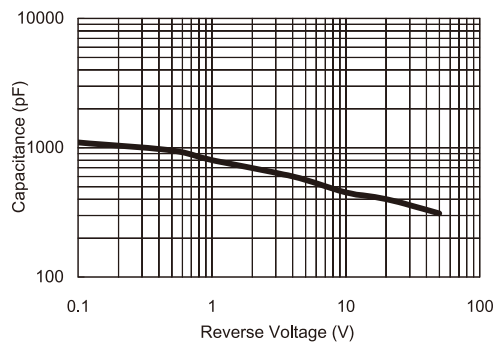


FIG 6 Typical Transient Thermal Resistance

