

SR1502 - SR1504

15.0 AMPS. Schottky Barrier Rectifiers

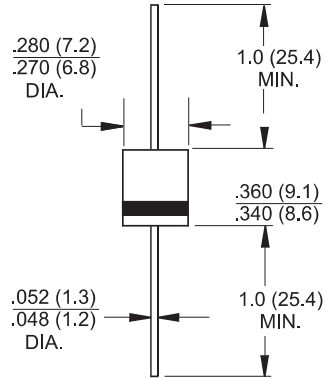
R-6

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



SR150X = 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	SR1502	SR1503	SR1504	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 @ $T_A = 50\text{ }^\circ\text{C}$ (Note 2)	$I_{F(AV)}$	15			A
Repetitive Peak Forward Current $f > 15\text{ Hz}$ (Note 2)	I_{FRM}	60			A
Peak Forward Surge Current, 50/60 Hz Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300 / 340			A
Maximum Instantaneous Forward Voltage @ 5.0A @ $T_A = 25\text{ }^\circ\text{C}$ @ 15.0A	V_F	0.45 0.55			V
Maximum DC Reverse Current @ $T_A = 25\text{ }^\circ\text{C}$ (Note 1) at Rated DC Blocking Voltage @ $T_A = 100\text{ }^\circ\text{C}$	I_R	500 20			μA mA
Rating for fusing $t < 10\text{ ms}$ @ $T_A = 25\text{ }^\circ\text{C}$	I^2t	390			A^2S
Maximum Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	25 2.5			$^\circ\text{C/W}$
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 (SR1502 THRU SR1504)

