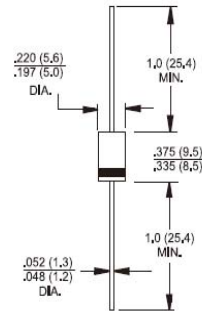


SR302 - SR320
3.0 AMPS, Schottky Barrier Rectifiers
DO-201AD

U1

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 in low voltage, high frequency inverter, free wheeling, and polarity protection application
- ✦ Green compound with suffix "G" on packing code & prefix "G" on datecode.



Mechanical Data

- ✦ Cases: DO-201AD molded plastic
- ✦ Epoxy: UL 94V-0 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



- SR3XX = 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	SR 302	SR 303	SR 304	SR 305	SR 306	SR 309	SR 310	SR 315	SR 320	Units
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	50	60	90	100	150	200	V
Maximum RMS Voltage	VRMS	14	21	28	35	42	63	70	105	140	V
Maximum DC Blocking Voltage	VDC	20	30	40	50	60	90	100	150	200	V
Maximum Average Forward Rectified Current See Fig. 1	IF(AV)	3.0									A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	80									A
Maximum Instantaneous Forward Voltage @3.0A	VF	0.55		0.70		0.85		0.95			V
Maximum D.C. Reverse Current @ TA=25 °C	IR	0.5		0.5		0.1				mA	
at Rated DC Blocking Voltage @ TA=100 °C (Note 1)		10		5		-					
@ TA=125 °C		-		-		2.0					
Typical Junction Capacitance (Note 2)	Cj	160		130		90				pF	
Typical Thermal Resistance (Note 3)	RθJA RθJC					50 15				°C/W	
Operating Junction Temperature Range	TJ	-65 to +125				-65 to +150				°C	
Storage Temperature Range	TSTG	-65 to +150									°C

- Notes:
1. Pulse Test with PW=300 usec, 1% Duty Cycle.
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
 3. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES (SR302 THRU SR320)

FIG. 1 FORWARD CURRENT DERATING CURVE

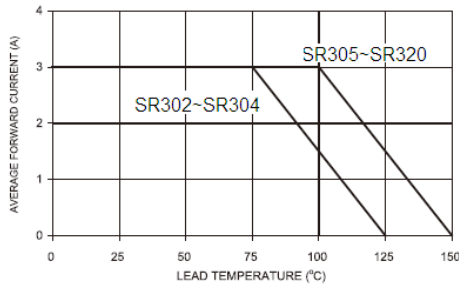


FIG. 2 MAXIMUM FORWARD SURGE CURRENT

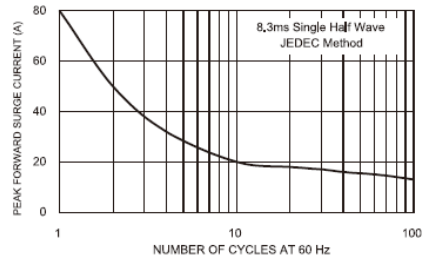


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

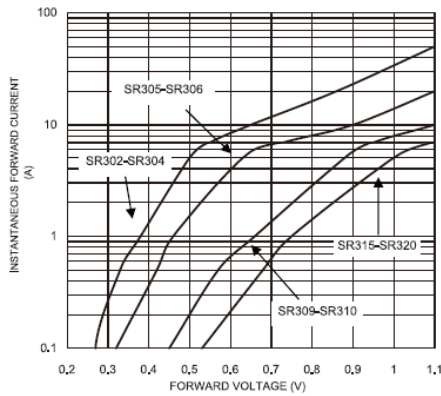


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

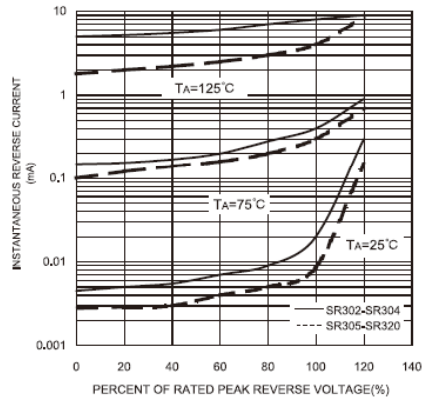


FIG. 5 TYPICAL JUNCTION CAPACITANCE

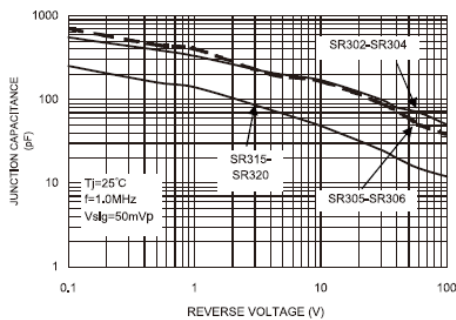


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

