

SR302 - SR309 SCHOTTKY BARRIER DIODES

VOLTAGE RANGE: 20-100V CURRENT: 3.0 A

Features

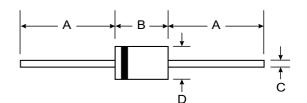
- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications

Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number







DO-201AD							
Dim	Min	Мах					
Α	25.40	_					
В	7.20	9.50					
С	1.20	1.30					
D	4.80	5.30					
All Dimensions in mm							

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	SR302	SR303	SR304	SR305	SR306	SR308	SR309	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	20	30	40	50	60	80	90	V
RMS Reverse Voltage	VR(RMS)	14	21	28	35	42	56	63	V
Average Rectified Output Current $@T_L = 95^{\circ}C$ (Note 1)	ю	3.0							А
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	80					A		
Forward Voltage $@I_F = 3.0A$	Vfm	0.55 0.75 0.85				85	V		
Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 100^{\circ}C$	Iгм	0.5 20						mA	
Typical Junction Capacitance (Note 2)	Cj	250							pF
Typical Thermal Resistance (Note 1)	R∂JA	20							°C/W
Operating and Storage Temperature Range	Тj, Tsтg	-65 to +150							°C

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

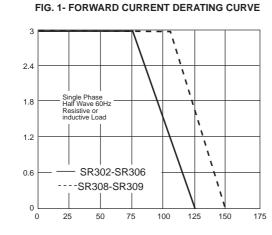


RATINGS AND CHARACTERISTIC CURVES SR302 THRU SR309

PEAK FORWARD SURGE CURRENT, AMPERES

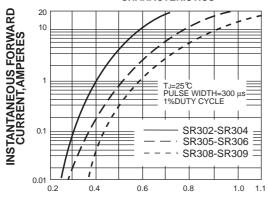
INSTANTANEOUS REVERSE CURRENT, MILLAMPERES

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

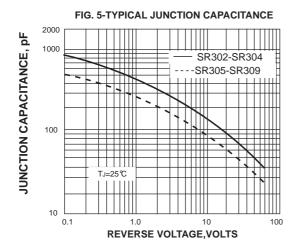


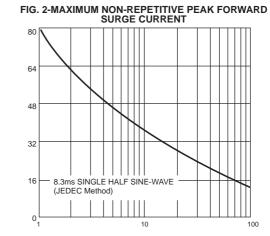
AMBIENT TEMPERATURE, °C

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



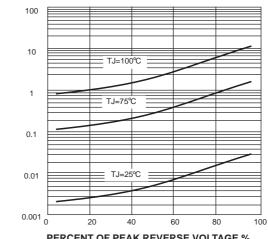
INSTANTANEOUS FORWARD VOLTAGE, VOLTS





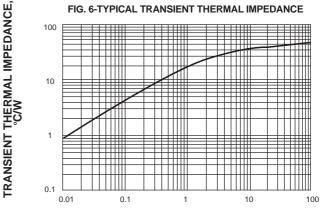
NUMBER OF CYCLES AT 60 Hz

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



PERCENT OF PEAK REVERSE VOLTAGE,%

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t,PULSE DURATION,sec.