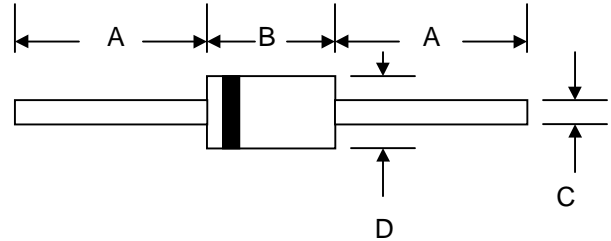


SR530L – SR5200L

5.0A LOW VF SCHOTTKY BARRIER DIODE

Features

- Low VF 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
- **Lead Free: For RoHS / Lead Free Version**

DO-201AD		
Dim	Min	Max
A	24.5	—
B	7.20	9.50
C	1.10	1.30
D	5.00	5.60
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	SR530L	SR540L	SR545L	SR550L	SR560L	SR580L	SR5100L	SR5150L	SR5200L	Unit
Peak Repetitive Reverse Voltage	V_{RRM}										V
Working Peak Reverse Voltage	V_{RWM}	30	40	45	50	60	80	100	150	200	
DC Blocking Voltage	V_R										
RMS Reverse Voltage	$V_{R(RMS)}$	21	28	31.5	35	42	56	70	105	140	V
Average Rectified Output Current (Note 1) @ $T_L = 75^\circ\text{C}$	I_O	5.0									A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	140									A
Forward Voltage @ $I_F = 5.0\text{A}$	V_{FM}	0.45			0.5		0.6		0.85		V
Peak Reverse Current At Rated DC Blocking Voltage @ $T_A = 25^\circ\text{C}$ @ $T_A = 100^\circ\text{C}$	I_{RM}	0.2 10					0.1 5				mA
Typical Junction Capacitance (Note 2)	C_j	500				350					pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	25									$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150									$^\circ\text{C}$

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.

SR530L – SR5200L

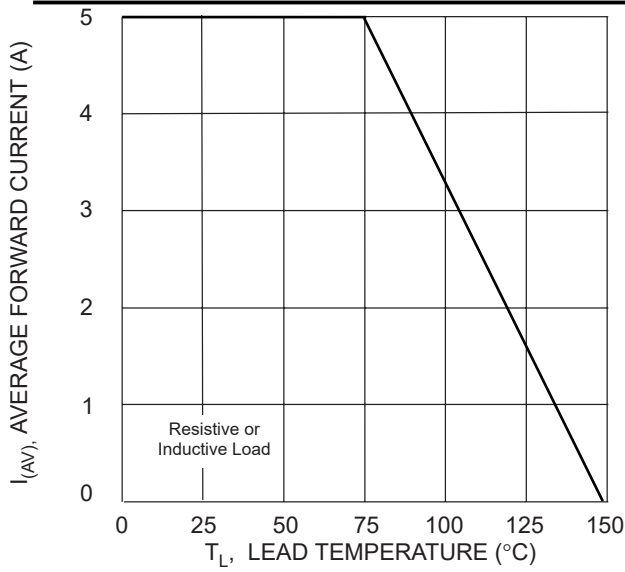


Fig. 1 Forward Current Derating Curve

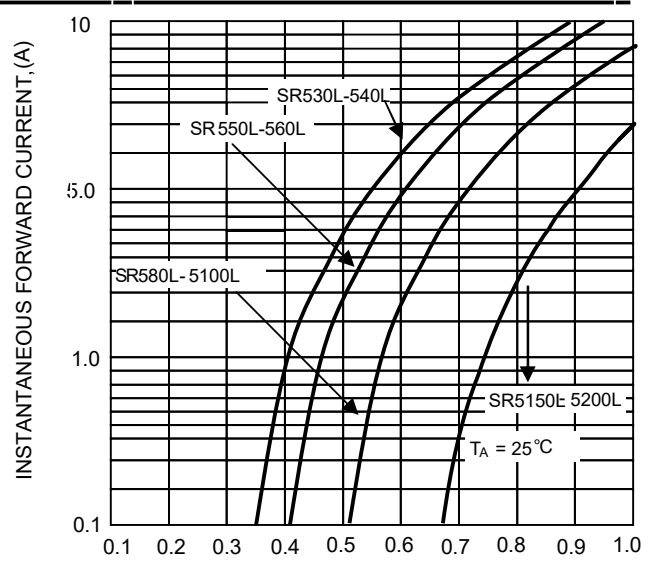


Fig. 2 INSTANTANEOUS FORWARD VOLTAGE (V)

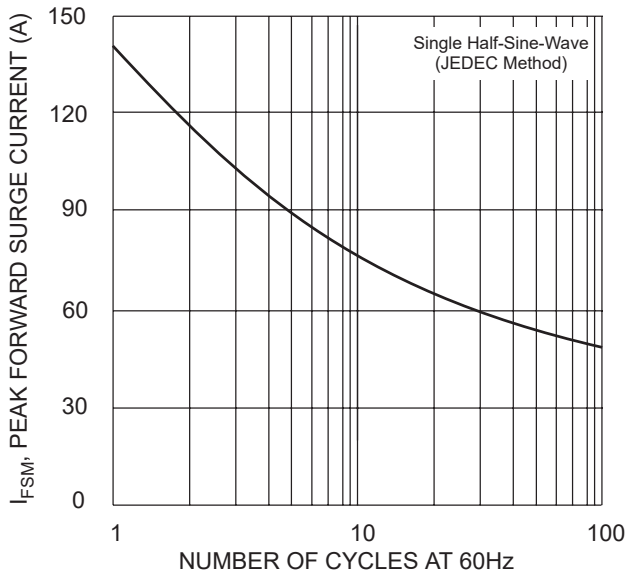


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

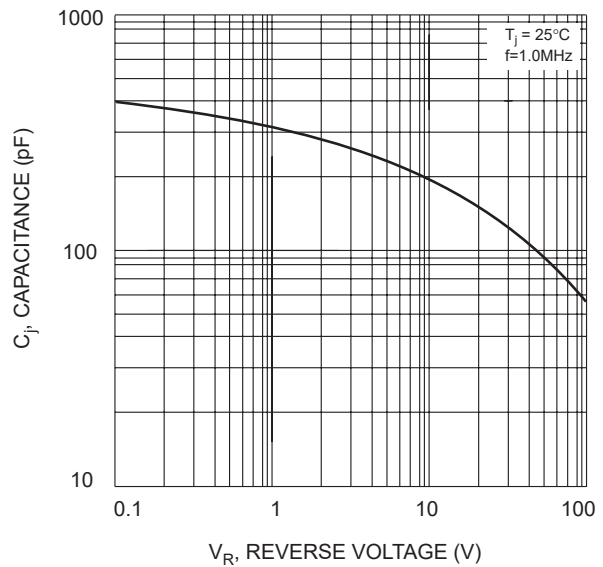


Fig. 4 Typical Junction Capacitance

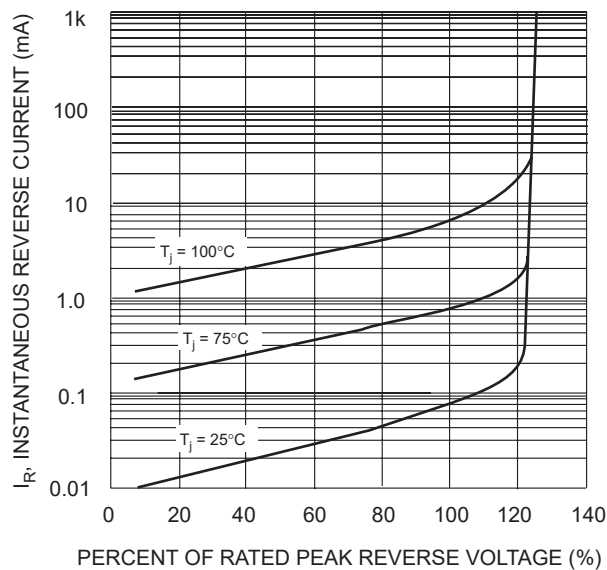


Fig. 5 Typical Reverse Characteristics