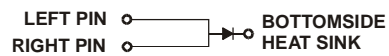
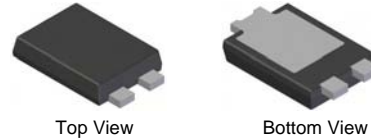


SR0545-SR05200

5.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Schottky Barrier Chip
- Bypass Diodes for Solar Panels
- High Junction Temperature
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability



Note: Pins Left & Right must be electrically connected at the printed circuit board.

Mechanical Data

- Case: TO-277B Molded Plastic "Green" Molding Compound
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version

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%.

Parameter	Symbol	SR 0545	SR 0550	SR 0560	SR 0580	SR 05100	SR 05150	SR 05200	Unit	
Peak Repetitive Reverse Voltage	V_{RRM}									
Working Peak Reverse Voltage	V_{RWM}	45	50	60	80	100	150	200	V	
DC blocking voltage	V_{DC}									
RMS Rectified Voltage	$V_{R(RMS)}$	32	35	42	56	70	105	140	V	
Average Rectified Output Current (Note1)	I_O	5.0							A	
Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load (JEDEC Method) (Note2)	I_{FSM}	120							A	
Forward Voltage Drop $T_A=25^\circ\text{C}$ @ $I_F=10\text{A}$	V_{FM}	0.55	0.70	0.85		0.92			V	
Peak Reverse Current $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R					0.3	15			mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ $R_{\theta JL}$					80	15			$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-55 to +150							$^\circ\text{C}$	
storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$	

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

2. Fr-4pcb. 2oz. Copper, minimum recommend pad layout .18.8mm×14.4. Anode pad dimensions 5.6mm×14.4mm.

SR0545-SR05200

FIG.1 - FORWARD CURRENT DERATING CURVE

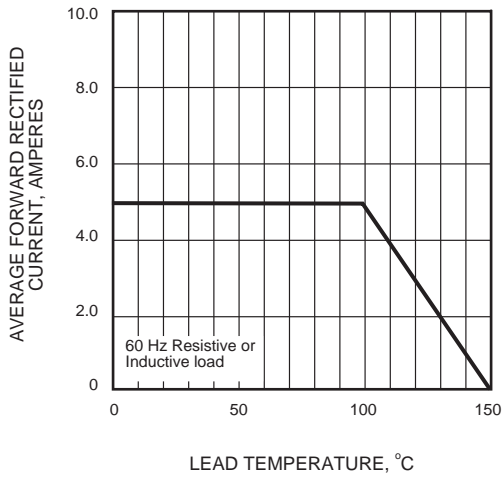


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

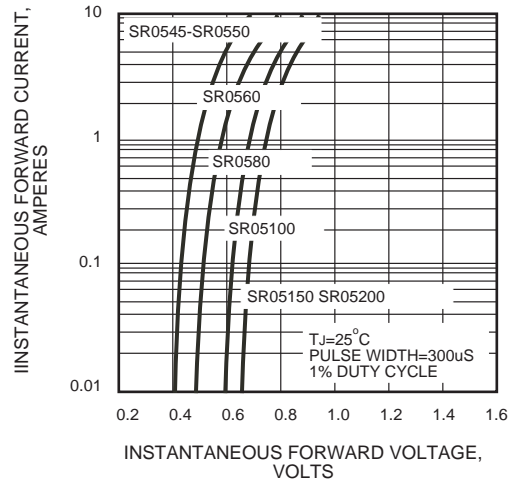


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

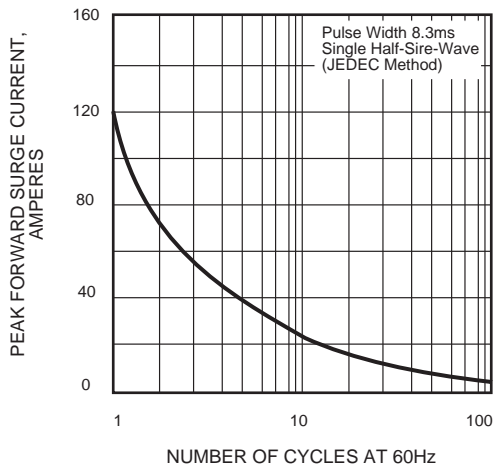


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

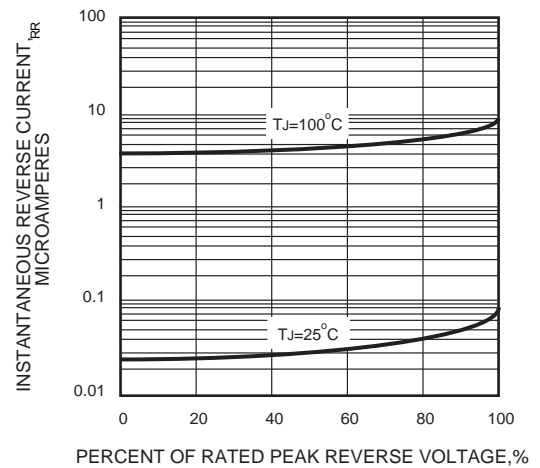


FIG.5 - TYPICAL JUNCTION CAPACITANCE

