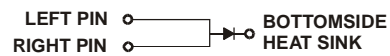
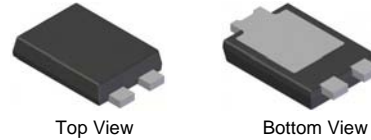


20A SURFACE MOUNT SCHOTTKY BARRIER DIODE

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	SR2045L	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
Working Peak Reverse Voltage	V_{RWM}		
DC blocking voltage	V_{DC}		
RMS Rectified Voltage	$V_{R(RMS)}$	32	V
Average Rectified Output Current (Note1)	I_o	20	A
Non-Repetitive Peak Forward Surge Single Half Sine-Wave Superimposed on rated load(JEDEC Method) (Note2)	I_{FSM}	275	A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	313.8	A^2s
Forward Voltage Drop $T_A=25^\circ\text{C}$ @ $I_F=5\text{A}$ $T_A=25^\circ\text{C}$ @ $I_F=15\text{A}$	V_{FM}	Typ Max. 0.40 - 0.485 0.63	V
Peak Reverse Current At Rated DC Blocking Voltage	I_R	$T_A=25^\circ\text{C}$: 0.3 $T_A=100^\circ\text{C}$: 10	mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ $R_{\theta JL}$	70 17	$^\circ\text{C}/\text{W}$
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.

FIG.1 - FORWARD CURRENT DERATING CURVE

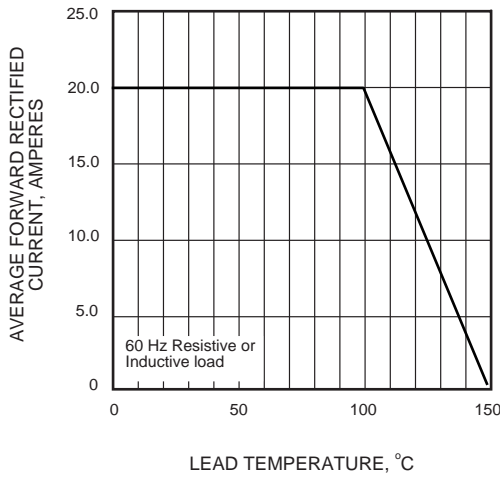


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

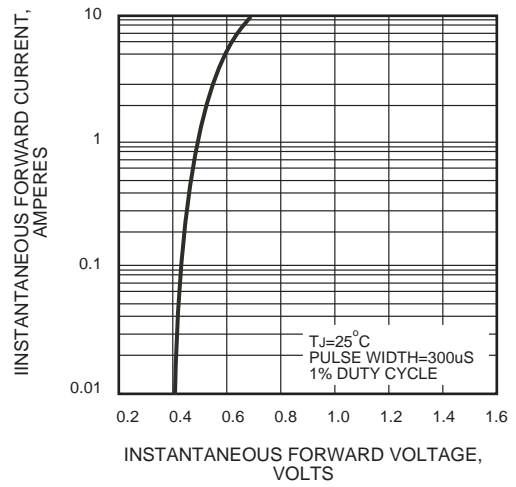


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

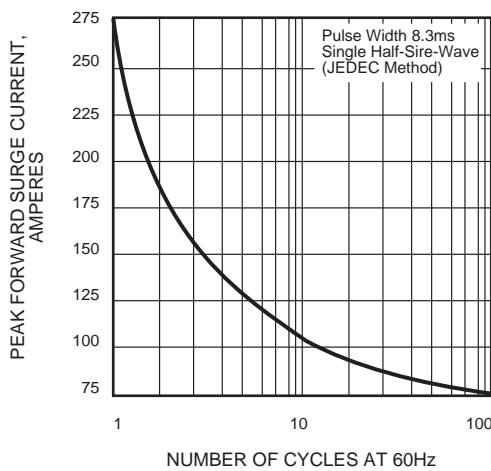


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

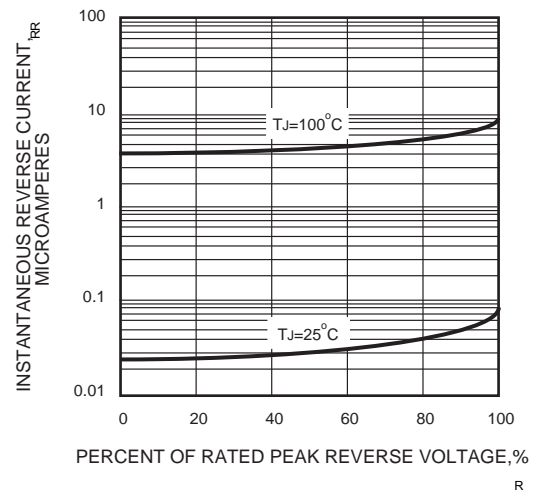
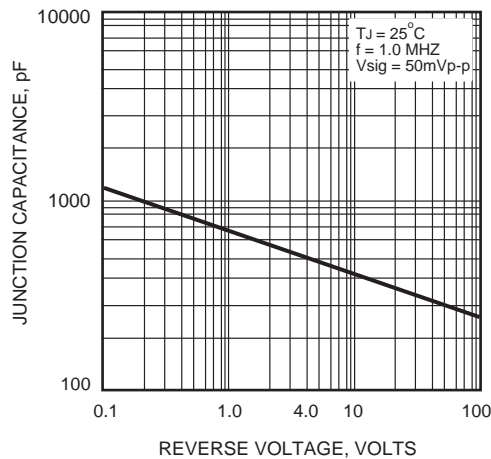


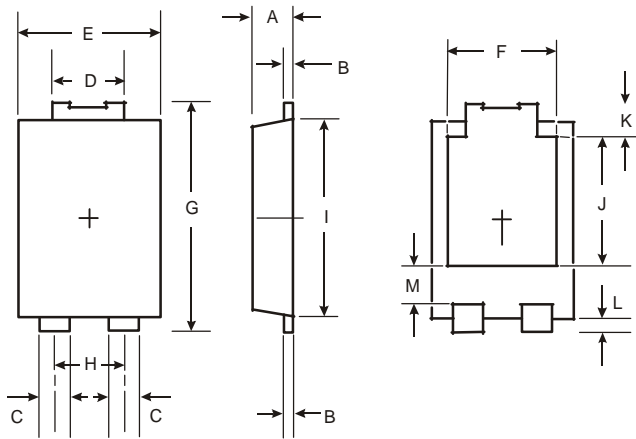
FIG.5 - TYPICAL JUNCTION CAPACITANCE



Ordering Information

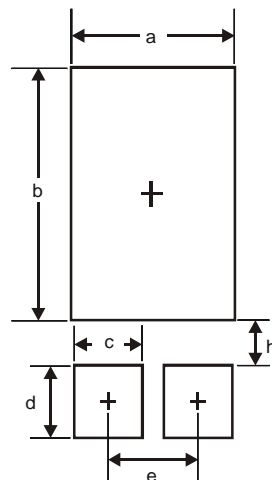
Part Number	Case	Packaging
SR20**L	TO-277B	5000/Tape & Reel

Outline Dimensions



TO-277B		
Dim	Min	Max
A	1.05	1.15
B	0.33	0.43
C	0.80	0.99
D	1.70	1.88
E	3.90	4.05
F	3.054 Typ	
G	6.40	6.60
H	1.84 Typ	
I	5.30	5.45
J	3.549 Typ	
K	0.75	0.95
L	0.50	0.65
M	1.10	1.41
All Dimensions in mm		

Suggested Pad Layout



Dimensions	Value (in mm)
a	3.360
b	4.860
c	1.390
d	1.400
e	1.840
h	0.852