

# SCHOTTKY BARRIER RECTIFIER

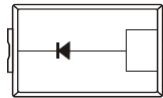
## SR1045L 45 V 10.0 A

### Features

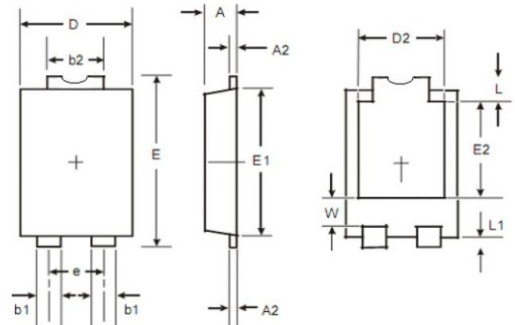
- Plastic package has underwriters laboratory flammability classification 94v-0
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling ,and polarity protection applications

### Mechanical Data

- Case: TO-277 molded plastic body
- Terminals: Lead solderable per MIL-STD-750, method 2026
- Polarity: As marked
- Mounting Position: Any



TO-277



A1:1.25±0.1	D2:3.05Typ	L:0.8±0.15
A2:0.38±0.05	E:6.5±0.1	L1:0.6±0.1
b1:0.9±0.1	e:1.84Typ	W:21.3±0.2
b2:1.8±0.1	E1:5.3±0.1	
D:3.95±0.1	E2:3.5±0.1	

Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	SR1045L	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	Volts
Maximum RMS voltage	$V_{RMS}$	32	Volts
Maximum DC blocking voltage	$V_{DC}$	45	Volts
Maximum average forward rectified current (see Fig.1)	$I_{(AV)}$	10	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150.0	Amps
Maximum instantaneous forward voltage at 10.0 A(Note 1 )	$V_F$	0.47	Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1)	TA =25°C	0.5	mA
	TA =125°C	15	
Typical thermal resistance (Note 2)	$R_{\theta JC}$	2.5	°C/W
Operating junction temperature range	TJ	-65 to+150	°C
Storage temperature range	TSTG	-65 to+150	°C

- Notes: 1.Pulse test: 300 us pulse width,1% duty cycle  
2.Thermal resistance from junction to case

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FIG.1-FORWARD CURRENT DERATING CURVE

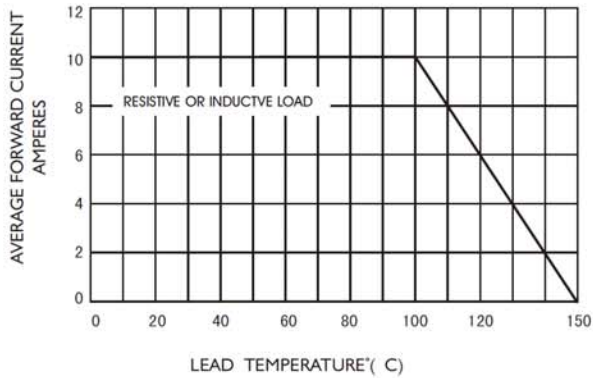


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

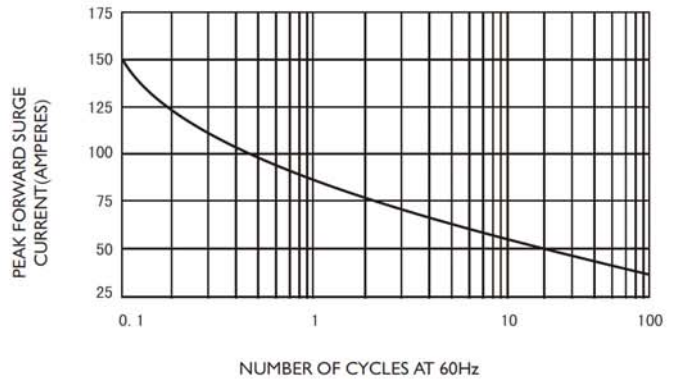


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

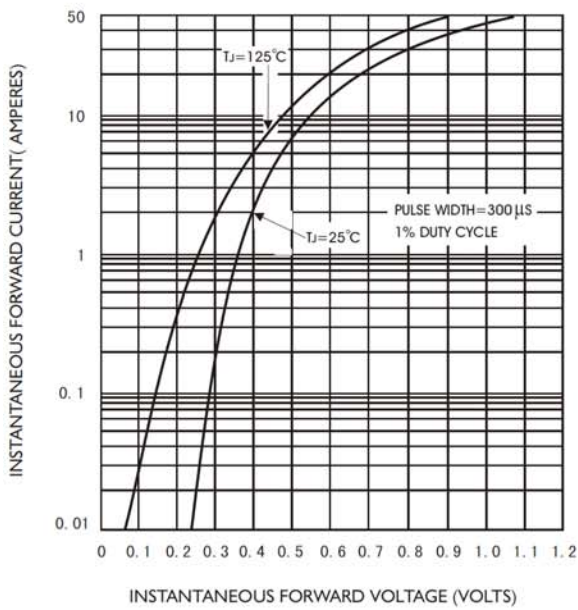


FIG.4-TYPICAL REVERSE CHARACTERISTICS

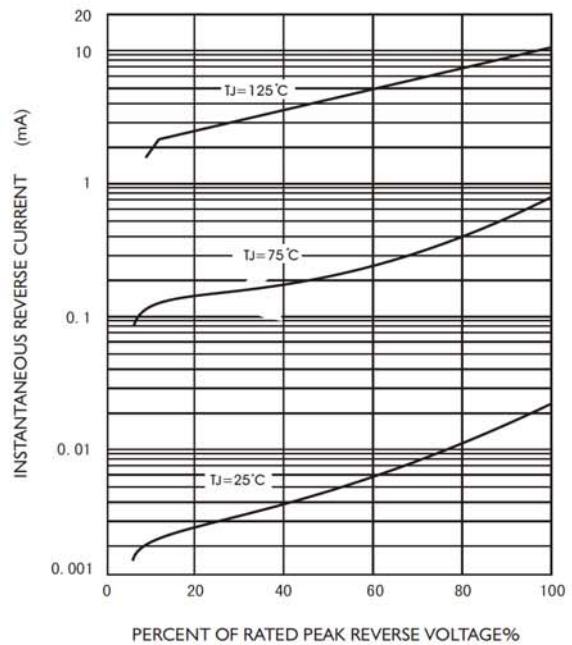


FIG.5-TYPICAL JUNCTION CAPACITANCE

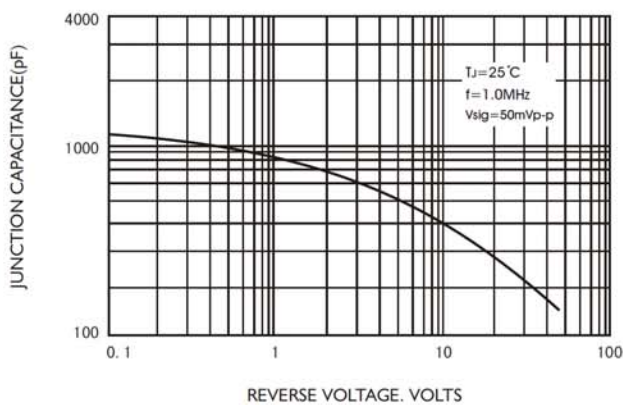


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

