SCHOTTKY BARRIER RECTIFIER
## SR1045   45 V   10.0 A

Features

TO-277

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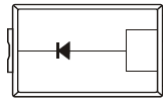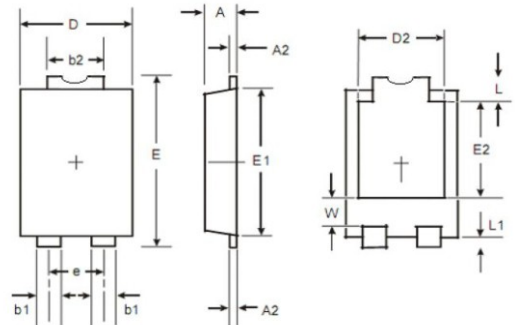
A1:1.25±0.1	D2:3.05Typ	L:0.8±0.15
A2:0.38±0.05	E:6.5±0.1	L1:0.6±0.1
b1:0.9±0.1	e:1.84Typ	W:21.3±0.2
b2:1.8±0.1	E1:5.3±0.1	
D:3.95±0.1	E2:3.5±0.1	

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

		Symbols	SR1045	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	0.5	Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1)	TA =25℃	I_R	0.5	mA
	TA =125℃		15	
Typical thermal resistance (Note 2)		$R_{\theta}JC$	2.5	℃/W
Operating junction temperature range		TJ	-65 to+150	℃
Storage temperature range		TSTG	-65 to+150	℃

Notes: 1.Pulse test: 300 us pulse width,1% duty   cycle

2.Thermal resistance from junction to case

SCHOTTKY BARRIER RECTIFIER
SR1045   45 V   10.0 A

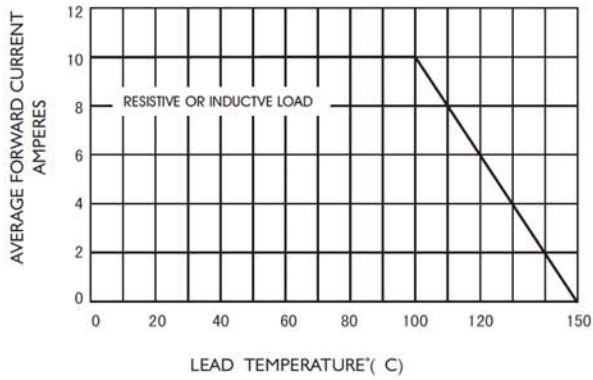### FIG.1-FORWARD CURRENT DERATING CURVE

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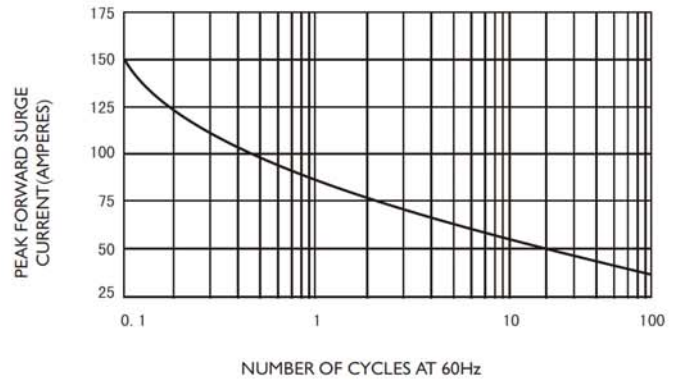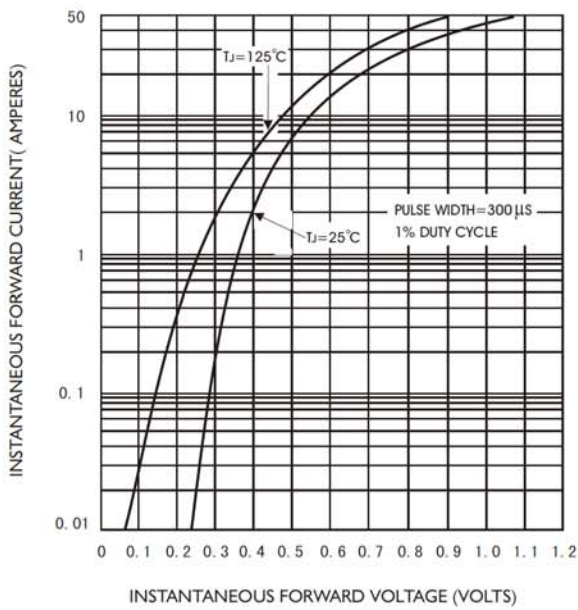

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

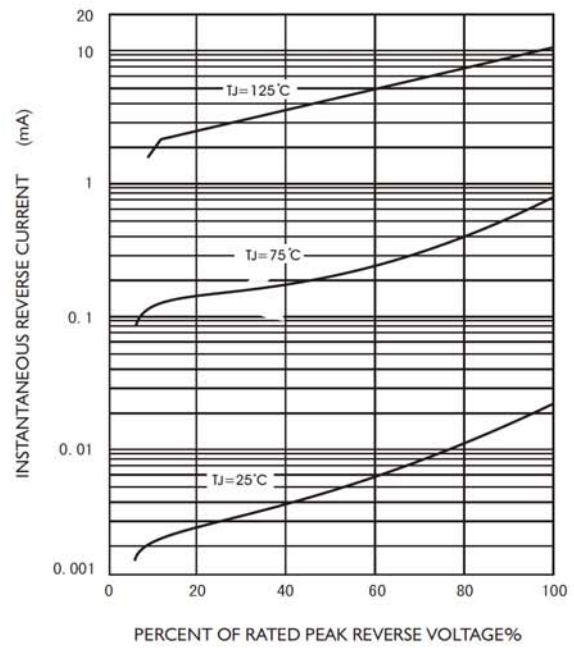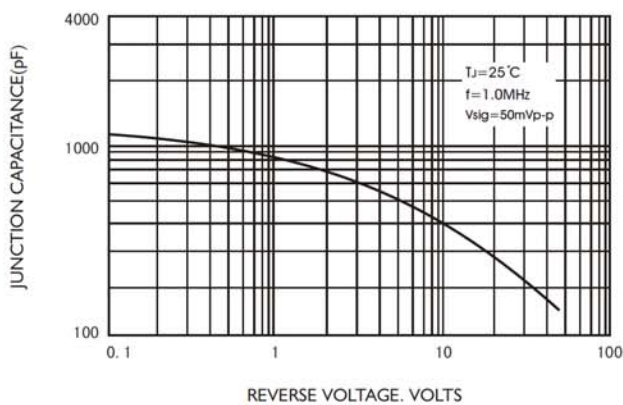### FIG.4-TYPICAL REVERSE CHARACTERISTICS

FIG.5-TYPICAL JUNCTION CAPACITANCE

FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE