SP1035L --- SP10200L

SILICON BRIDGE RECTIFIER

REVERSE VOLTAGE : 35 --- 200 V
CURRENT: 10.0A

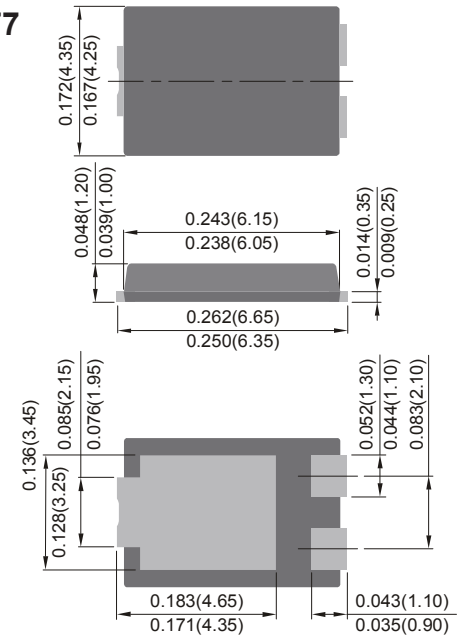
Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Guard ring for overvoltage protection
- Low power loss,high efficiency
- High current capability,low forward voltage drop
- High surge capability
- High temperature soldering guaranteed 260 ℃/10 seconds at terminals

Mechanical Data

- Case : TO-277 Molded plastic body
- Terminals : Solder plated, solderable per MIL- STD-750,Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position:Any

TO-277



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

@ Ta =25℃ unless otherwise specified Single Phase,half wave,60Hz,resistive or inductive load.For capacitive load,derate current by 20%.

	Symbols	SP 1035L	SP 1045L	SP 1050L	SP 1060L	ST 10100L	ST 10150	ST 10200L	Units
Maximum repetitive peak reverse voltage	V_{RRM}	35	45	50	60	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	25	32	35	42	70	105	140	Volts
Maximum DC blocking voltage	V_{DC}	35	45	50	60	100	150	200	Volts
Maximum average forward rectified current See Fig. 1	$I_{(AV)}$	10.0							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 15 A	V_F	0.45		0.55		0.70	0. 80	0. 85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_c =25℃	I_R	0.3							mA
T_c =125℃		30			50				
Typical thermal resistance (Note 2)	$R_{\theta JC}$	3.0							℃/W
Operating junction temperature range	T_J	-65 to+150							℃
Storage temperature range	T_{STG}	-65 to+150							℃

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

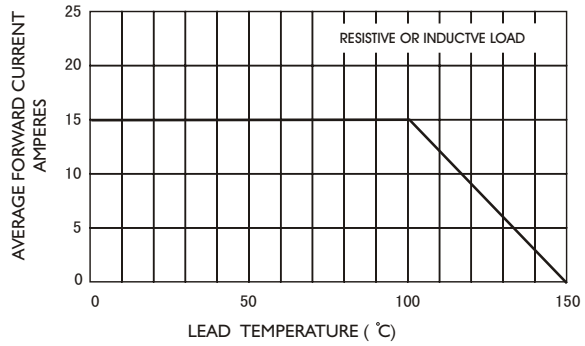


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

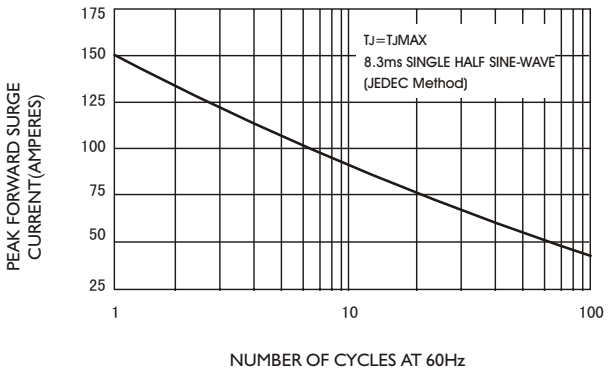


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

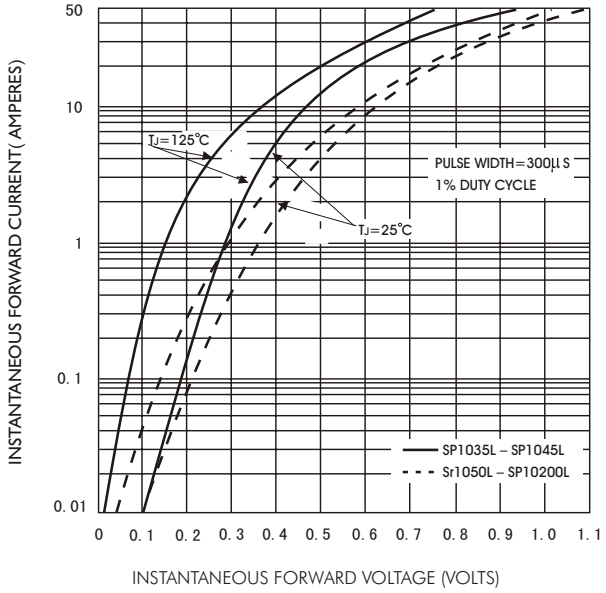


FIG.4-TYPICAL REVERSE CHARACTERISTICS

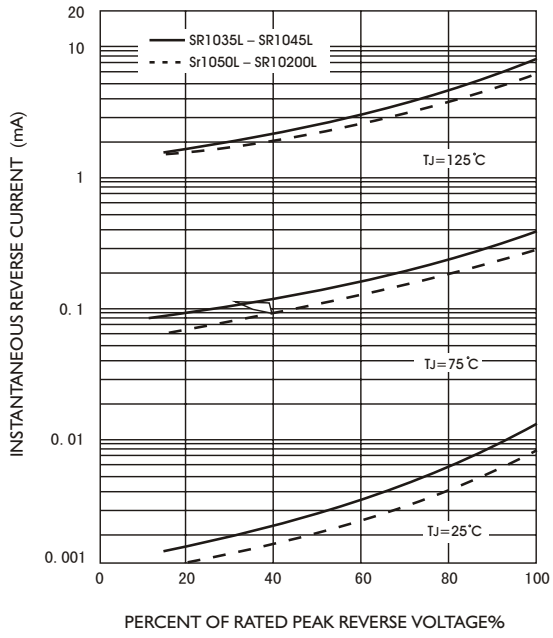


FIG.5-TYPICAL JUNCTION CAPACITANCE

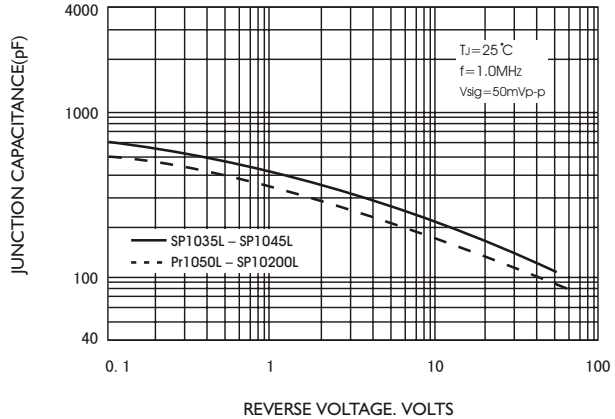


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE