

Features

- Ultra Low Forward Voltage Drop .
- Very low profile-typical height of 1.10mm
- Low Power Losses,High Efficiency Operation
- Low Thermal Resistance Package.
- High Operating Junction Temperature.
- Compliant to Halogen-free.

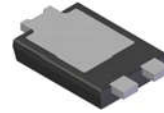
Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : TO-277 , molded Plastic
- Terminals:Solderable per MIL-STD-750,Method 2026

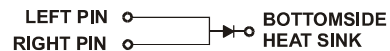
TO-277



Top View



Bottom View



Maximum ratings (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	SP1060L	Unit
DC Blocking Voltage Working Peak Reverse Voltage Repetitive Peak Reverse Voltage	V_{DC} V_{RWM} V_{RRM}	60	V
RMS Reverse Voltage	V_{RMS}	42	V
Average Forward Rectified Current	$I_{F(AV)}$	10	A
Peak Forward Surge Current,8.3ms Half Sine-wave($T_A=25^\circ\text{C}$)	I_{FSM}	280	A
Operating junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Test Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Reverse Breakdown Voltage	$T_J=25^\circ\text{C}$	V_B	60	-	-	V
Forward voltage	$I_F=10\text{A}, T_J=25^\circ\text{C}$	V_F		0.47	0.52	V
	$I_F=10\text{A}, T_J=125^\circ\text{C}$			0.4	0.45	
Reverse current	$T_J=25^\circ\text{C}$	I_R			0.1	mA
	$T_J=125^\circ\text{C}$				15	

Thermal Characteristics

Parameter	Symbol	SP1060L	Unit
Typical thermal resistance junction to ambient ,Note 1	$R_{\theta JA}$	80	$^\circ\text{C/W}$
Typical thermal resistance junction to lead, Note 2	$R_{\theta JA}$	25	$^\circ\text{C/W}$

Note : 1.FR-4 PCB, 2oz.Copper.

2.Polyimide PCB, 2oz.Copper.Cathode pad dimensions 18.8mm x 14.4mm.Anode pad dimensions 5.6mm x 14.4mm.

Rating and characteristic curves

Fig.1 - Forward Current Derating Curve

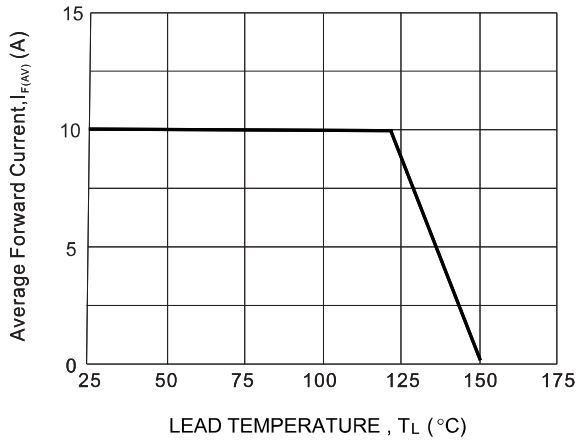


Fig. 2 Typical Forward Characteristics (per leg)

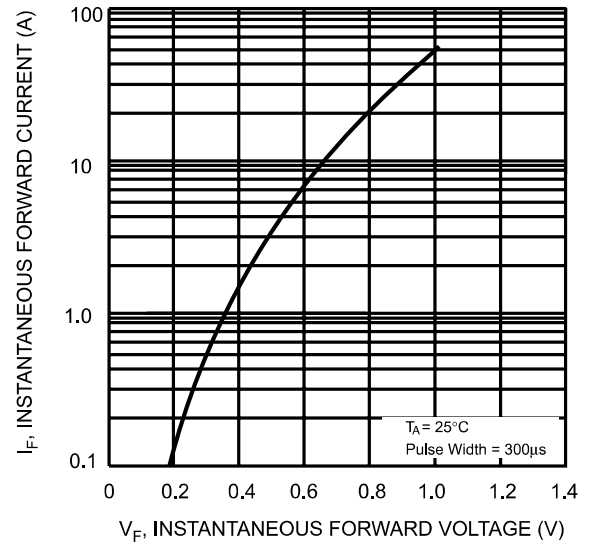


Fig. 3 Maximum Peak Forward Surge Current (per leg)

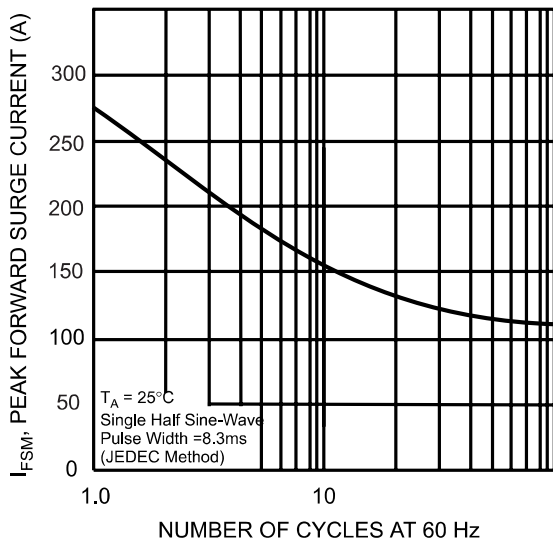
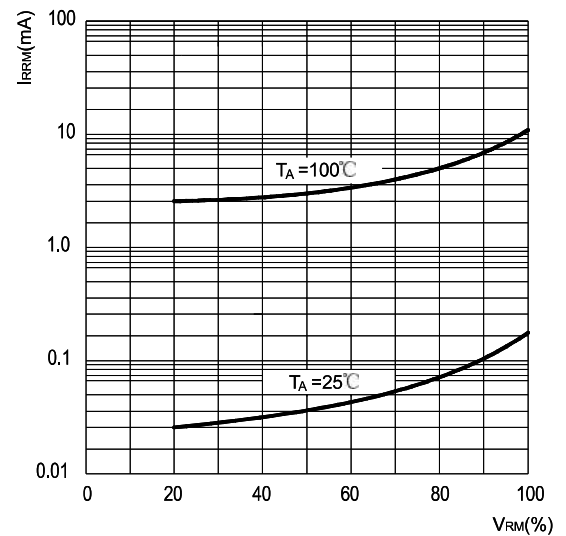
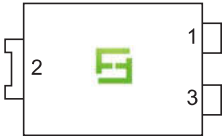
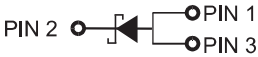


Fig4: Typical Reverse Characteristics



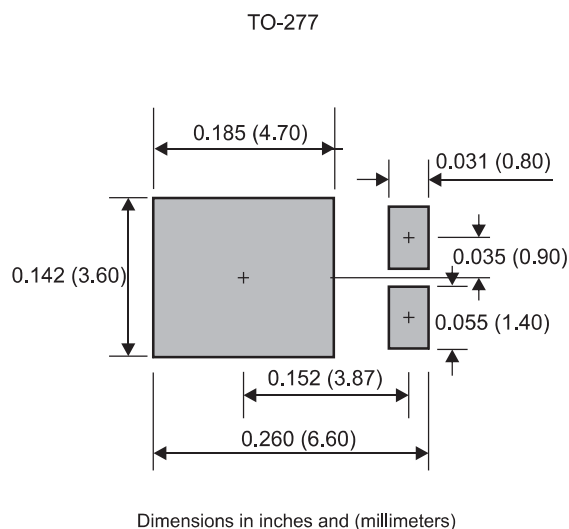
Pinning information

Pin	Simplified outline	Symbol
Pin2 cathode Pin1 anode Pin3 anode		

Marking

Type number	Marking code
SP1060L	

Suggested solder pad layout



Package outline

