

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.

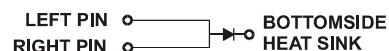
TO-277B


Top View

Bottom View

Mechanical data

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



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

Parameter	Symbol		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}	275	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		0.48	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	PDS760		Unit
Typical thermal resistance junction to ambient , Note 1	R_{QJA}	80		$^\circ\text{C}/\text{W}$
Typical thermal resistance junction to lead, Note 2	R_{SJA}	25		$^\circ\text{C}/\text{W}$

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

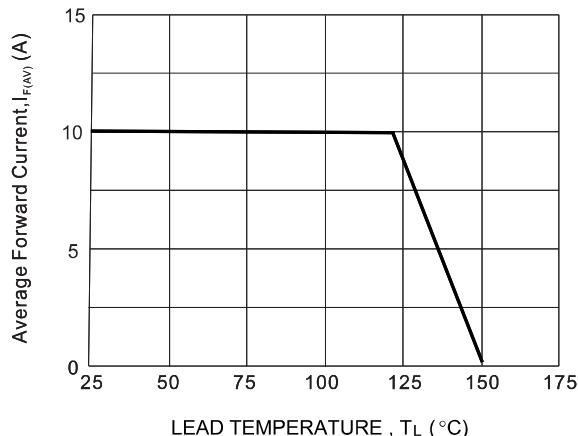


Fig. 2 Typical Forward Characteristics (per leg)

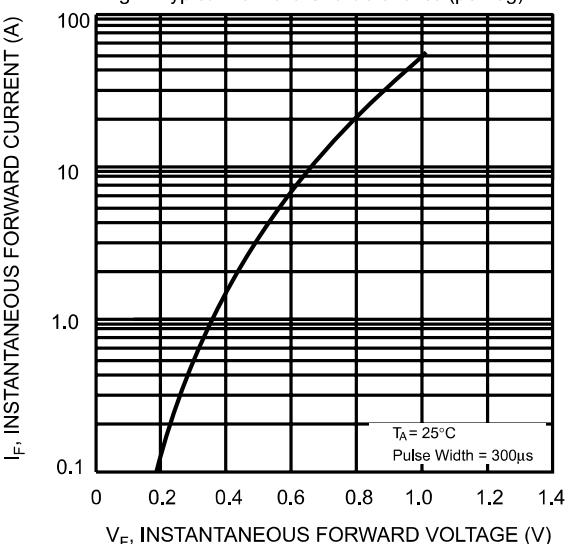


Fig. 3 Maximum Peak Forward Surge Current (per leg)

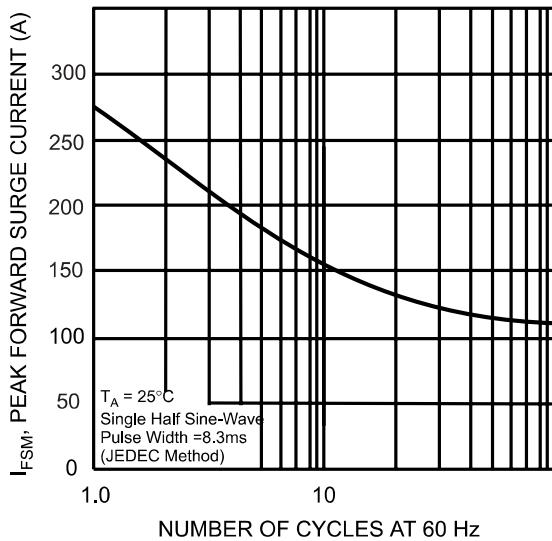
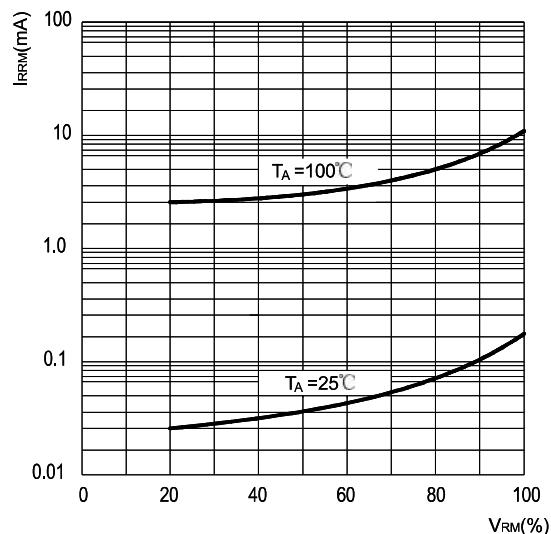
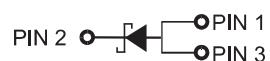


Fig4: Typical Reverse Characteristics



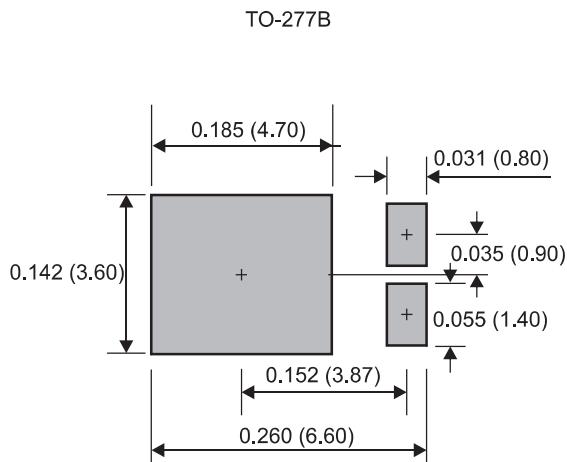
Pinning information

Pin	Simplified outline	Symbol
Pin2 cathode Pin1 anode Pin3 anode		

Marking

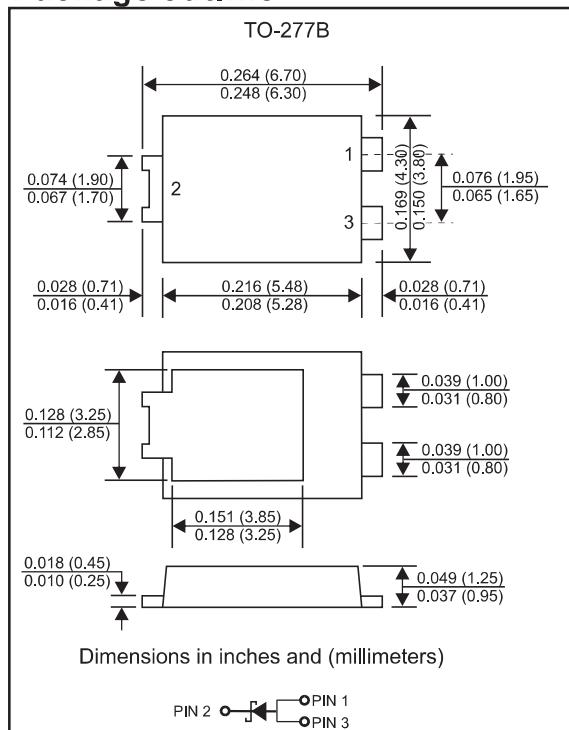
Type number	Marking code
PDS760	

Suggested solder pad layout



Dimensions in inches and (millimeters)

Package outline



Dimensions in inches and (millimeters)