

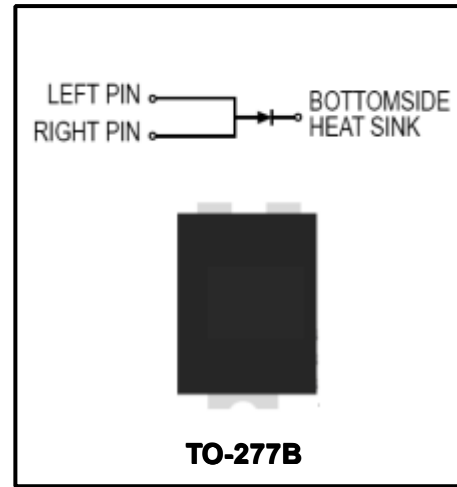
Low V_F Schottky Rectifier

Features

- High current capability, low forward voltage
- Excellent high temperature stability
- Low power loss, and high efficiency
- High Forward Surge Capability
- Patented package technology

Applications

- Switching mode power supply applications
- Portable equipment battery applications
- High frequency rectification
- DC / DC Converter
- Designed as bypass diodes for solar panels



Absolute Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified)

Symbol	Parameter	Value	Units
V_{DRM}	Repetitive peak reverse voltage	45	V
V_{DC}	Maximum DC blocking voltage	45	V
$I_{F(AV)}$	Average forward current	10	A
I_{FSM}	Surge non repetitive forward current (8.3ms single half sine-wave)	280	A
T_J	Junction Temperature	-40~150	°C
T_{stg}	Storage Temperature	-40~150	°C

Thermal Characteristics (Rating at 25°C ambient temperature unless otherwise specified)

Symbol	Parameter	Value			Units
		Min	Typ	Max	
R_{QJC} (Note 2)	Thermal Resistance, Junction-to-Case	-	31	-	°C/W

Electrical Characteristics

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit	
Reverse leakage current	I_R	$V_R = \text{Max. } V_{RRM}$	$I_{FRM} @ 25^\circ\text{C}$	-	-	0.3	mA
			$I_{FRM} @ 100^\circ\text{C}$	-	-	20	mA
Forward voltage drop(Note 1)	V_F	$I_F = 2\text{A}$	-	0.31	0.35	V	
		$I_F = 8\text{A}$	-	0.37	0.38	V	
		$I_F = 10\text{A}$	-	0.39	0.41	V	
		$I_F = 2\text{A} @ 100^\circ\text{C}$	-	0.23	0.26	V	
		$I_F = 10\text{A} @ 125^\circ\text{C}$	-	0.353	0.38	V	

Note 1. Pulse test width PW=300usec , 1% duty cycle

Note 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

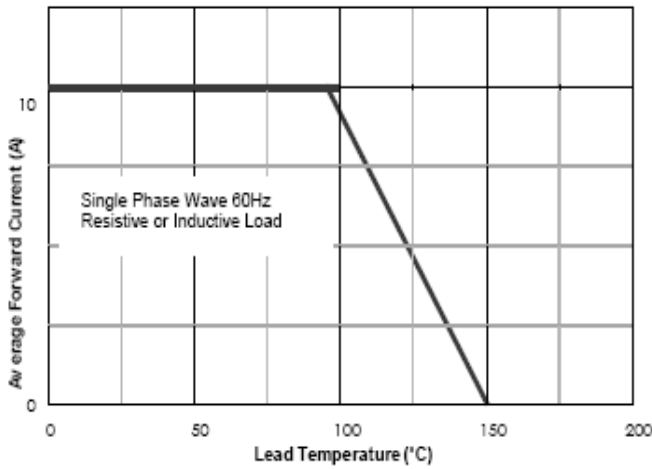


Fig.1 Typical Forward Current Derating Curve

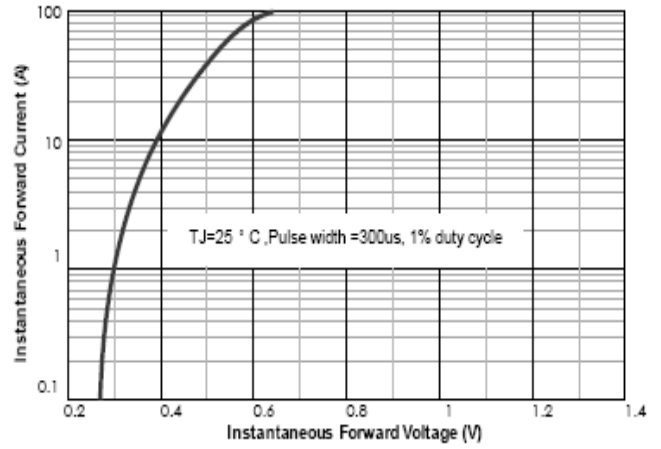


Fig.2 Typical Instantaneous Forward Characteristics

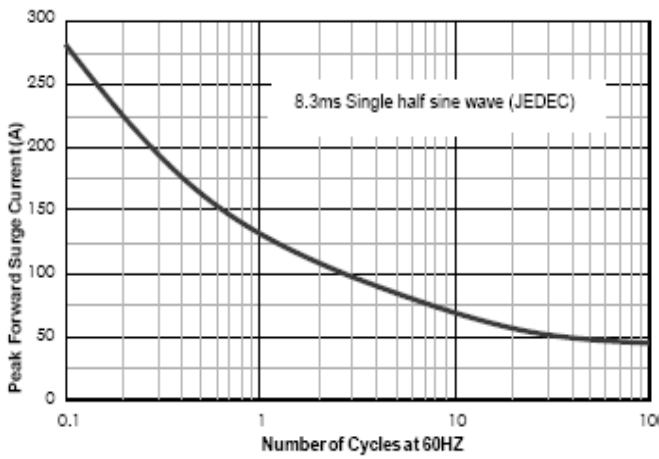


Fig.3 Maximum Non-Repetitive Forward Surge Current

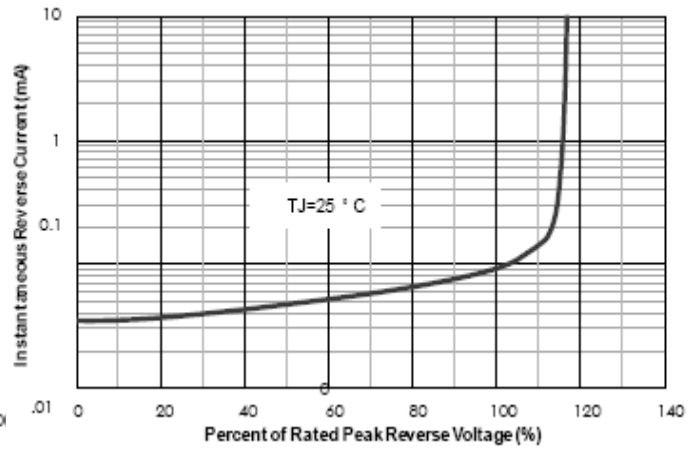
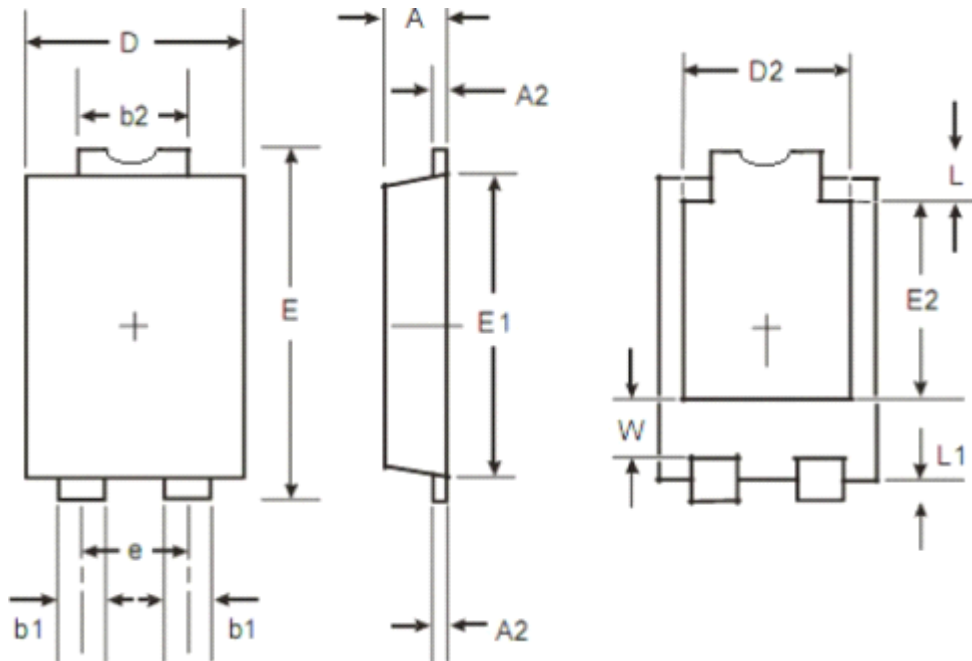


Fig.4 Typical Reverse Characteristics

TO-277B Package Dimension



NO	Dimensions (mm)	NO	Dimensions (mm)
A	1.25±0.1	e	1.84Typ
A2	0.38±0.05	E1	5.3±0.1
b1	0.9±0.1	E2	3.5±0.1
b2	1.8±0.1	L	0.8±0.15
D	3.95±0.1	L1	0.6±0.1
D2	3.05Typ	W	1.3±0.2
E	6.5±0.1		