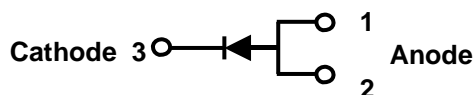


## Trench MOS Barrier Schottky Rectifier

**TO-277**



### Features

- Advanced trench technology
- Low forward voltage drop
- Low power losses
- High efficiency operation
- Lead Free Finish, RoHS Compliant

### Applications

- DC/DC Converters
- AC/DC Adaptors

### Maximum ratings and electrical characteristics (T<sub>J</sub> = 25°C unless otherwise noted)

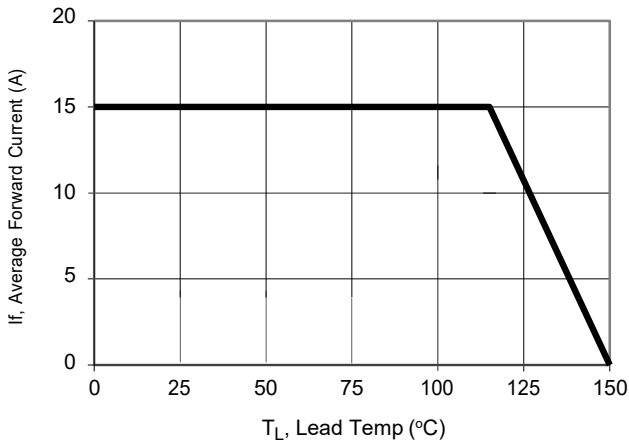
Parameter		Symbol	Limit		Unit
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	80		V
Maximum average forward rectified current		I <sub>F(AV)</sub>	15		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode		I <sub>FSM</sub>	180		A
Operating junction and storage temperature range		T <sub>J</sub> , T <sub>STG</sub>	-40 to +150		°C
Typical thermal resistance per diode(Mounted on FR-4 PCB)		R <sub>θJA</sub>	72		°C/W
Instantaneous forward voltage per diode		V <sub>F(1)</sub>	TYP.	MAX.	V
	I <sub>F</sub> =3A T <sub>J</sub> =25°C		0.44	0.48	
	I <sub>F</sub> =3A T <sub>J</sub> =125°C		0.39	-	
	I <sub>F</sub> =15A T <sub>J</sub> =25 °C		0.59	-	
Instantaneous reverse current per diode at rated reverse voltage	T <sub>J</sub> =25 °C	I <sub>R(2)</sub>	20	50	μA
	T <sub>J</sub> =125°C		-	20	mA

Notes:

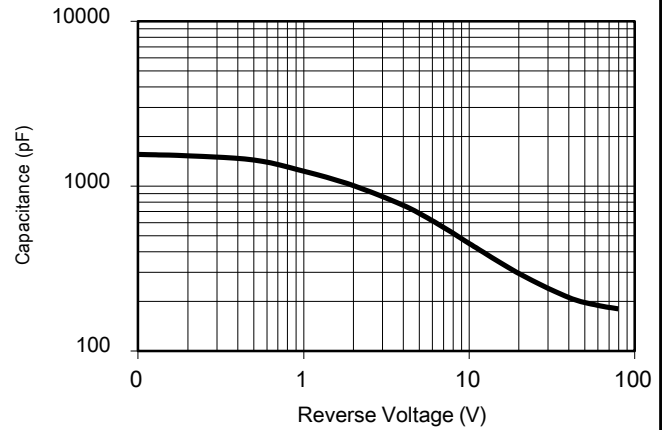
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

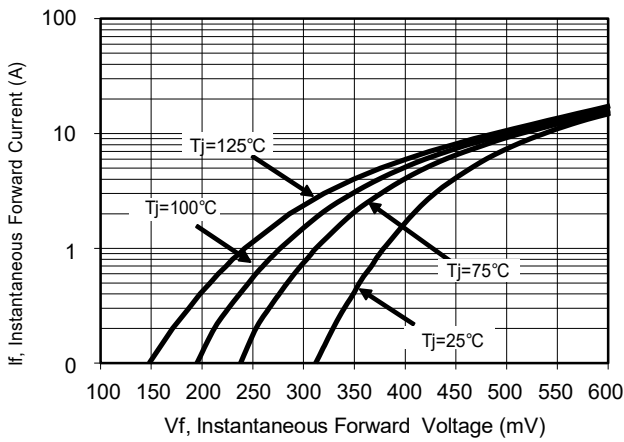
**RATINGS AND CHARACTERISTICS CURVES** (TA = 25 °C unless otherwise noted)



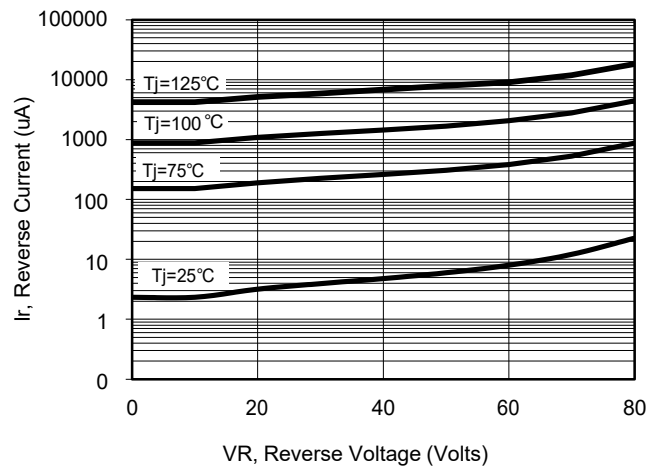
**Current Derating, Case**



**Typical Junction Capacitance**

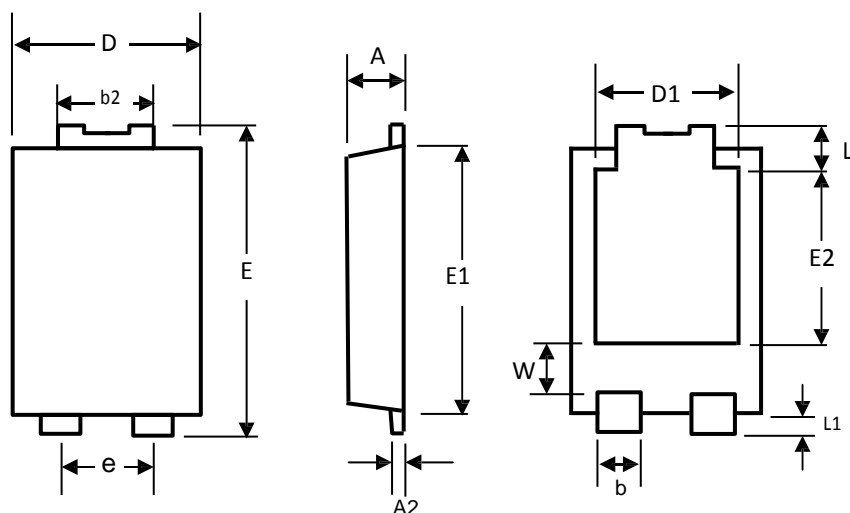


**Typical Forward Voltage**



**Typical Reverse Current**

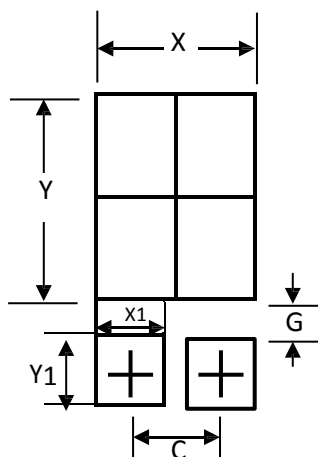
## PACKAGE OUTLINE DIMENSIONS



Dim	Min	Max
A	1.1	1.2
A2	0.3	0.4
b1	0.8	1
b2	1.7	1.9
D	3.9	4.1
D1	3.054	
E	6.4	6.6
e	1.84	
E1	5.3	5.5
E2	3.549	
L	0.8	1
L1	0.5	0.7
W	1.1	1.4

unit:mm

## Mounting Pad Layout



Dim	Min
C	1.8
G	0.9
X	3.4
X1	1.4
Y	4.9
Y1	1.4

unit:mm