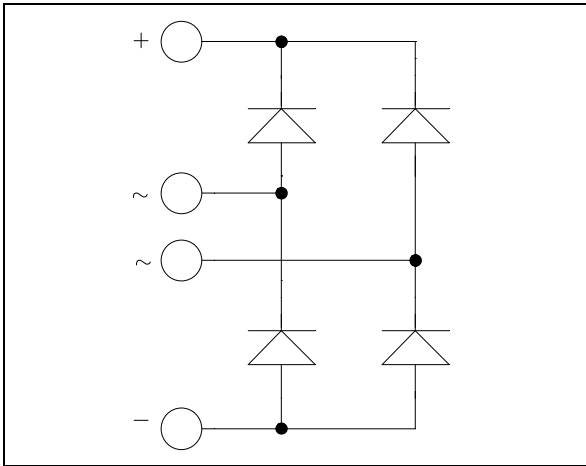


## ISOTOP<sup>®</sup> Schottky Diode Full Bridge Power Module

**$V_{RRM} = 45V$**   
 **$I_F = 40A @ T_c = 80^{\circ}C$**

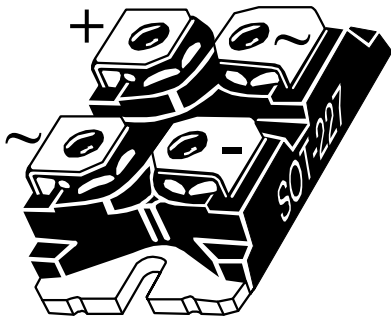


### Application

- Switch mode power supplies rectifier
- Induction heating
- Welding equipment

### Features

- Ultra fast recovery times
- Soft recovery characteristics
- High current
- Very low stray inductance
- High level of integration
- ISOTOP<sup>®</sup> Package (SOT-227)



### Benefits

- Outstanding performance at high frequency operation
- Low losses
- Low noise switching
- Direct mounting to heatsink (isolated package)
- Low junction to case thermal resistance
- RoHS Compliant

### Absolute maximum ratings

Symbol	Parameter	Max ratings	Unit
$V_R$	Maximum DC reverse Voltage	45	V
$V_{RRM}$	Maximum Peak Repetitive Reverse Voltage		
$I_{FAV}$	Rectangular, $d = 0.5$	40	A
$I_{FSM}$	Non-Repetitive Forward Surge Current	450	

**CAUTION:** These Devices are sensitive to Electrostatic Discharge. Proper Handling Procedures Should Be Followed. See application note APT0502 on [www.microsemi.com](http://www.microsemi.com)

All ratings @  $T_j = 25^\circ\text{C}$  unless otherwise specified

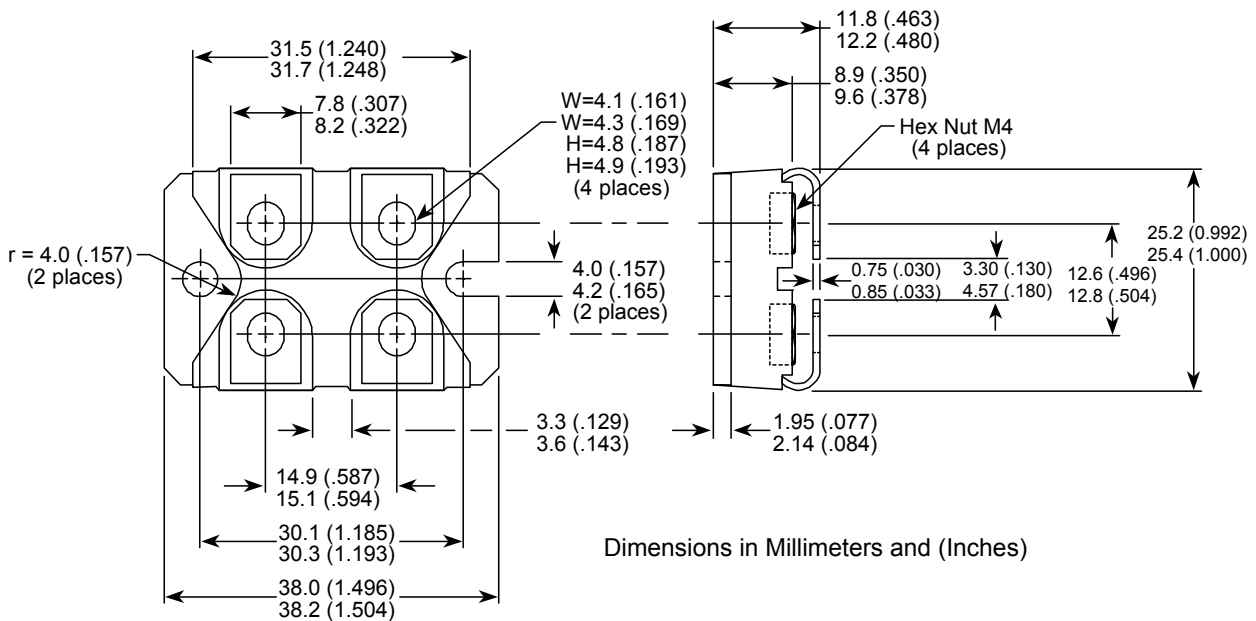
### Electrical Characteristics

Symbol	Characteristic	Test Conditions	Min	Typ	Max	Unit
$I_R$	Reverse Current	$V_R = 45\text{V}$	$T_j = 25^\circ\text{C}$		20	mA
			$T_j = 125^\circ\text{C}$		200	
$V_F$	Forward Voltage	$I_F = 40\text{A}$	$T_j = 25^\circ\text{C}$		0.58	V
			$T_j = 125^\circ\text{C}$		0.48	

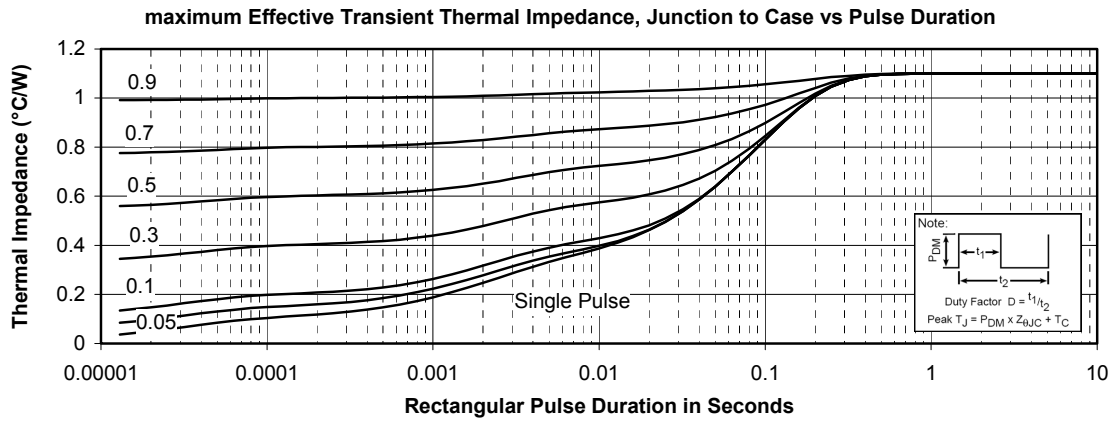
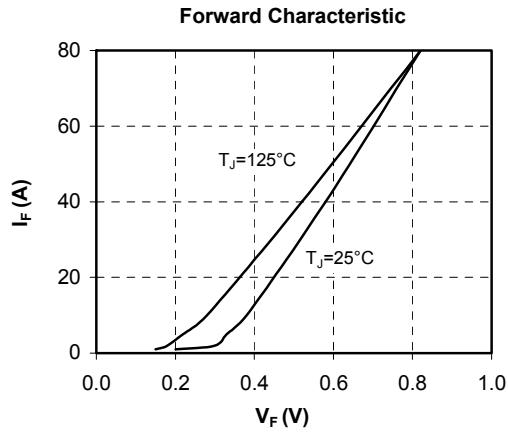
### Thermal and package characteristics

Symbol	Characteristic	Min	Typ	Max	Unit
$R_{thJC}$	Junction to Case Thermal resistance			1.1	$^\circ\text{C}/\text{W}$
$R_{thJA}$	Junction to Ambient			20	
$V_{ISOL}$	RMS Isolation Voltage, any terminal to case $t=1$ min, 50/60Hz	2500			V
$T_j, T_{STG}$	Storage Temperature Range	-55		150	$^\circ\text{C}$
$T_L$	Max Lead Temp for Soldering: 0.063" from case for 10 sec			300	
Torque	Mounting torque (Mounting = 8-32 or 4mm Machine and terminals = 4mm Machine)			1.5	N.m
Wt	Package Weight		29.2		g

### SOT-227 (ISOTOP<sup>®</sup>) Package Outline



**Typical Performance Curve**



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