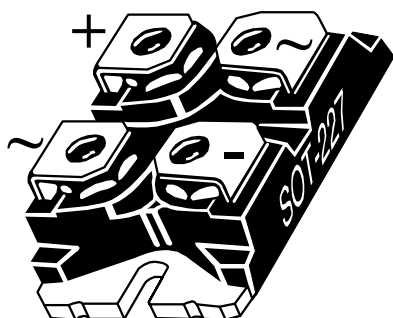
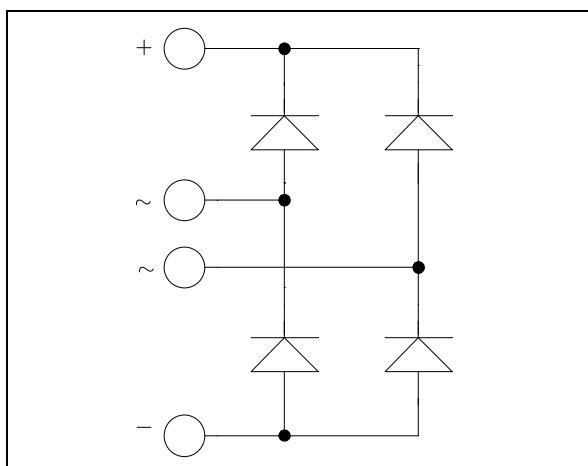


ISOTOP® Schottky Diode Full Bridge Power Module

$$V_{RRM} = 45V$$

$$I_F = 60A @ T_c = 80^{\circ}C$$



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® 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		T _C = 80°C	60	A
I _{FSM}	Non-Repetitive Forward Surge Current	t = 10ms	T _J = 45°C	600	

CAUTION: These Devices are sensitive to Electrostatic Discharge. Proper Handling Procedures Should Be Followed. See application note APT0502 on www.microsemi.com

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

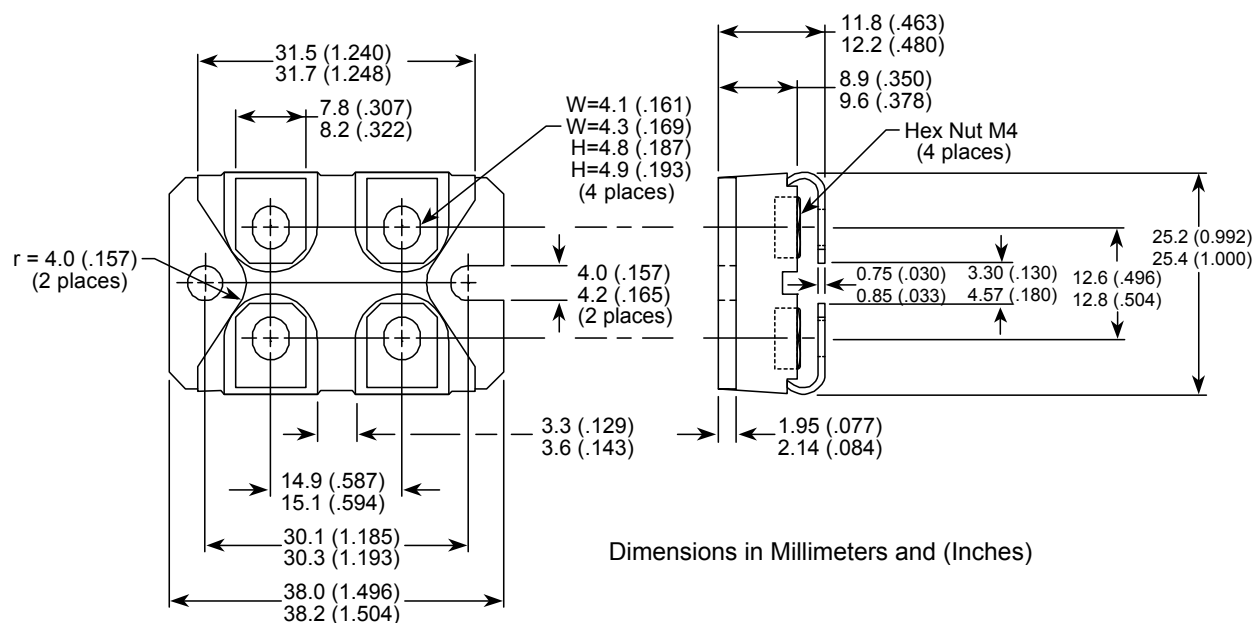
Electrical Characteristics

Symbol	Characteristic	Test Conditions	Min	Typ	Max	Unit
I_R	Reverse Current	$V_R = 45\text{V}$	$T_j = 25^{\circ}\text{C}$	30		mA
			$T_j = 125^{\circ}\text{C}$	250		
V_F	Forward Voltage	$I_F = 60\text{A}$	$T_j = 25^{\circ}\text{C}$	0.58		V
			$T_j = 125^{\circ}\text{C}$	0.48		

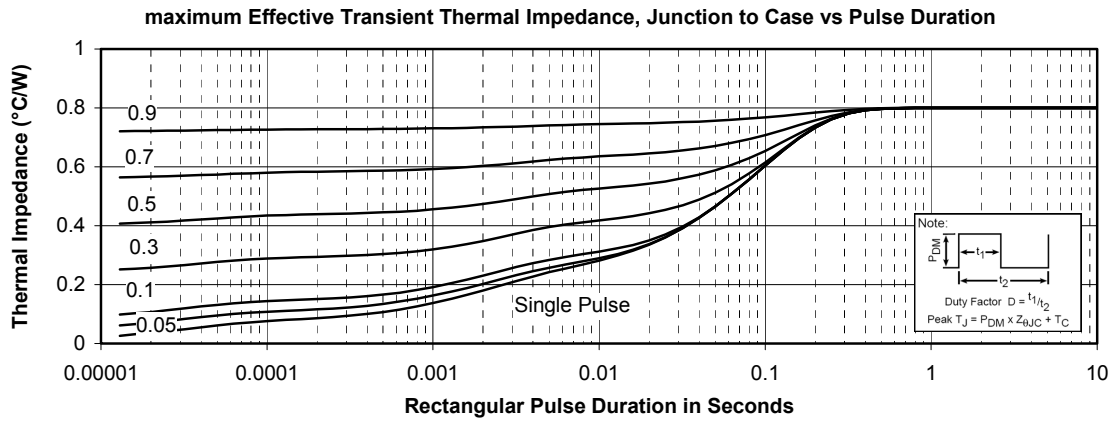
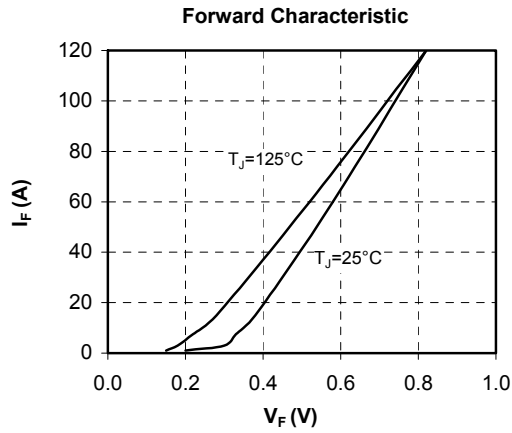
Thermal and package characteristics

Symbol	Characteristic	Min	Typ	Max	Unit
R_{thJC}	Junction to Case Thermal resistance			0.8	$^{\circ}\text{C/W}$
R_{thJA}	Junction to Ambient			20	$^{\circ}\text{C/W}$
V_{ISOL}	RMS Isolation Voltage, any terminal to case $t = 1\text{ min}$, 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	$^{\circ}\text{C}$
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[®]) Package Outline



Typical Performance Curve



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