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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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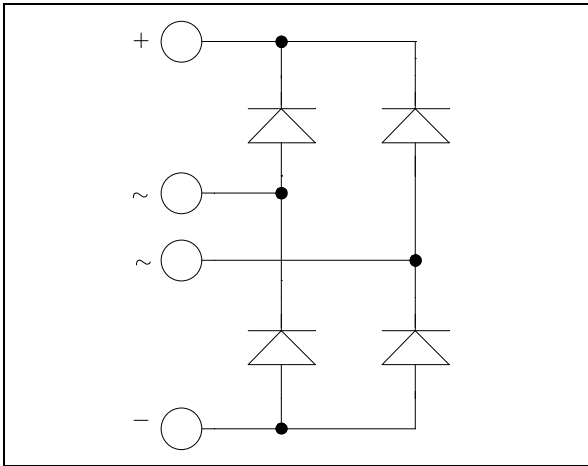
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## ISOTOP<sup>®</sup> Schottky Diode Full Bridge Power Module

**$V_{RRM} = 200V$**   
 **$I_F = 30A @ T_c = 80^{\circ}C$**

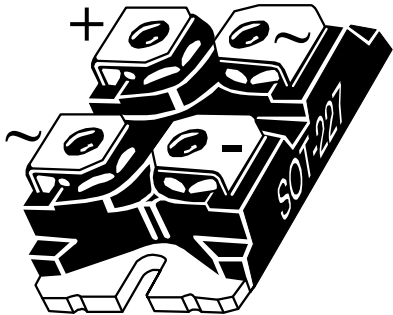


### Application

- 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	200	V		
$V_{RRM}$	Maximum Peak Repetitive Reverse Voltage				
$I_{F(AV)}$	Maximum Average Forward Current	Duty cycle = 50%	$T_c = 25^{\circ}C$	45	A
			$T_c = 80^{\circ}C$	30	
$I_{FSM}$	Non-Repetitive Forward Surge Current	8.3ms	$T_j = 45^{\circ}C$	320	

 **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**

<i>Symbol</i>	<i>Characteristic</i>	<i>Test Conditions</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Unit</i>
$V_F$	Diode Forward Voltage	$I_F = 30\text{A}$		0.8	0.85	V
		$I_F = 60\text{A}$		0.91		
		$I_F = 30\text{A}$	$T_j = 125^\circ\text{C}$	0.67		
$I_{RM}$	Maximum Reverse Leakage Current	$V_R = 200\text{V}$	$T_j = 25^\circ\text{C}$		0.5	mA
			$T_j = 125^\circ\text{C}$		15	
$C_T$	Junction Capacitance	$V_R = 200\text{V}$		150		pF

**Dynamic Characteristics**

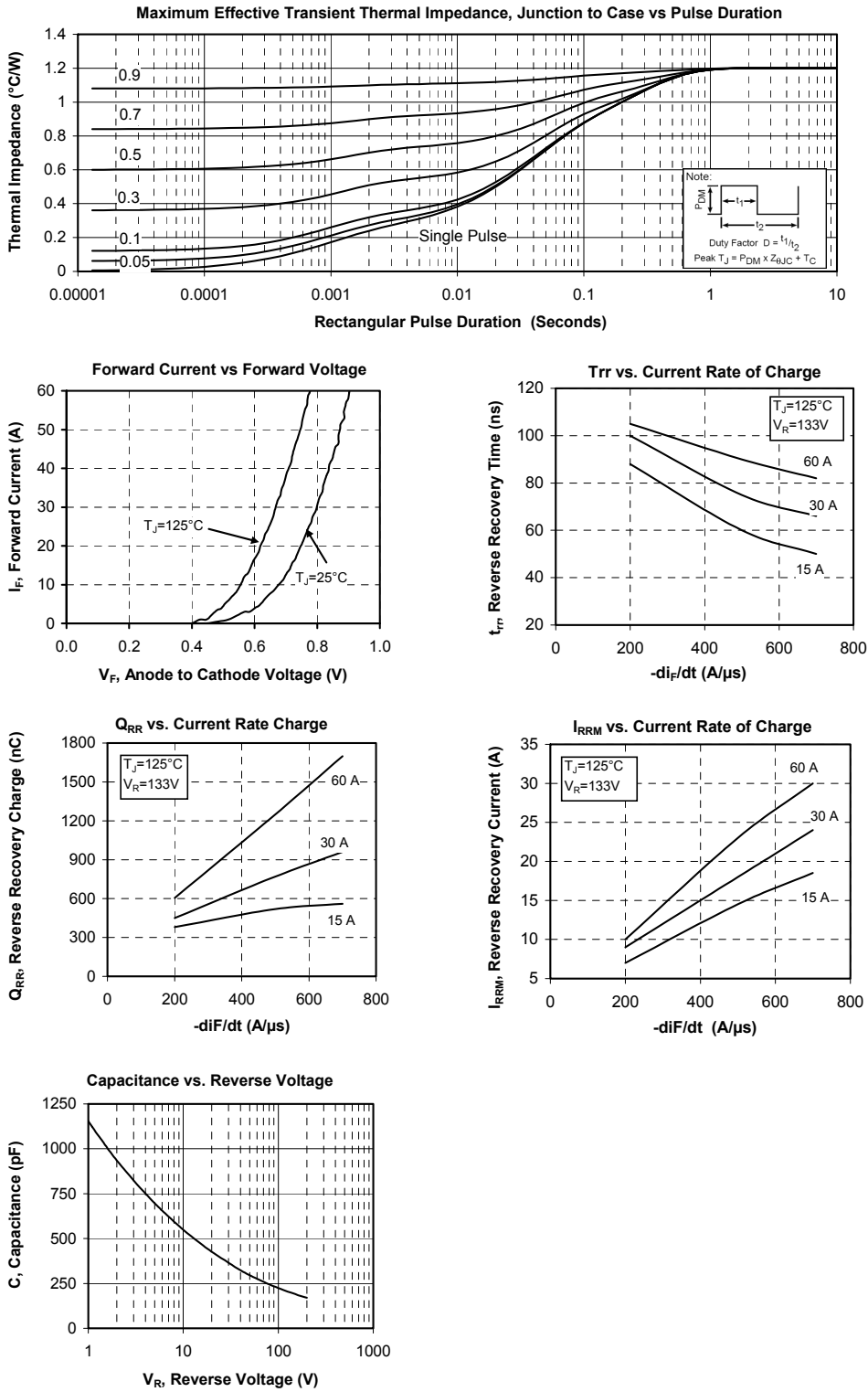
<i>Symbol</i>	<i>Characteristic</i>	<i>Test Conditions</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Unit</i>
$t_{rr}$	Reverse Recovery Time	$I_F = 30\text{A}$ $V_R = 133\text{V}$ $di/dt = 200\text{A}/\mu\text{s}$	$T_j = 25^\circ\text{C}$		55	ns
			$T_j = 125^\circ\text{C}$		100	
$Q_{rr}$	Reverse Recovery Charge		$T_j = 25^\circ\text{C}$		190	nC
			$T_j = 125^\circ\text{C}$		450	
$I_{RRM}$	Reverse Recovery Current		$T_j = 25^\circ\text{C}$		6	A
			$T_j = 125^\circ\text{C}$		9	
$t_{rr}$	Reverse Recovery Time	$I_F = 30\text{A}$ $V_R = 133\text{V}$ $di/dt = 700\text{A}/\mu\text{s}$	$T_j = 125^\circ\text{C}$		70	ns
$Q_{rr}$	Reverse Recovery Charge				960	nC
$I_{RRM}$	Reverse Recovery Current				24	A

**Thermal and package characteristics**

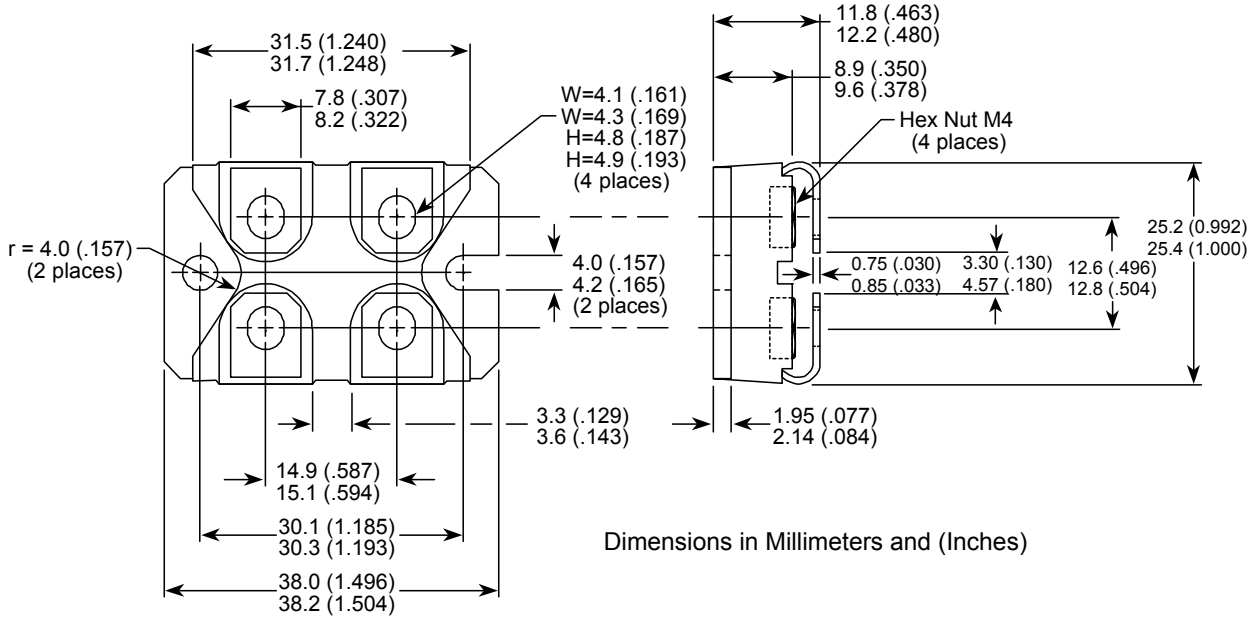
<i>Symbol</i>	<i>Characteristic</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Unit</i>
$R_{thJC}$	Junction to Case Thermal resistance			1.2	$^\circ\text{C}/\text{W}$
$R_{thJA}$	Junction to Ambient			20	
$V_{ISOL}$	RMS Isolation Voltage, any terminal to case $t = 1\text{ min}$ , 50/60Hz	2500			V
$T_j, T_{STG}$	Storage Temperature Range	-55		150	$^\circ\text{C}$
$T_L$	Max Lead Temp for Soldering: 0.063" from case for 10 sec			300	
Torque	Mounting torque (Mounting = 8-32 or 4mm Machine and terminals = 4mm Machine)			1.5	N.m
Wt	Package Weight		29.2		g



## Typical Performance Curve



**SOT-227 (ISOTOP®) Package Outline**



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