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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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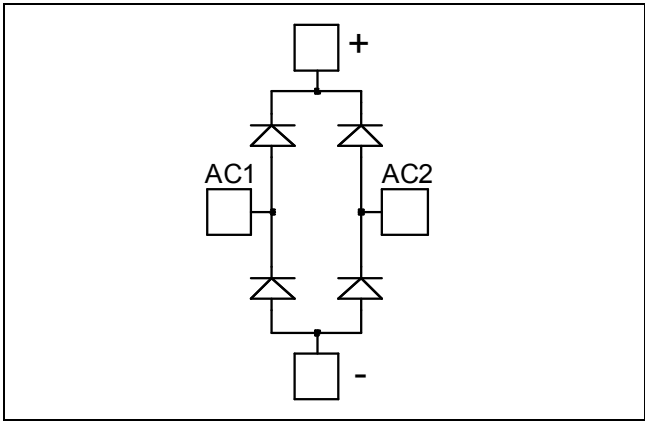
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## Diode Full Bridge Power Module

**$V_{RRM} = 1700V$**   
 **$I_C = 100A @ T_c = 55^\circ C$**

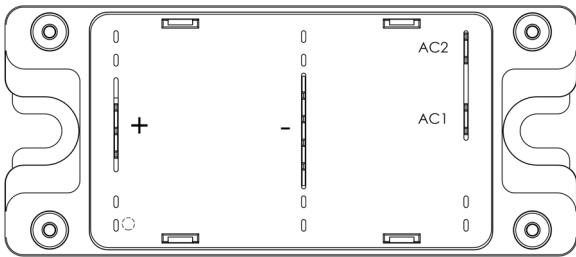


### Application

- Uninterruptible Power Supply (UPS)
- Induction heating
- Welding equipment
- High speed rectifiers

### Features

- Ultra fast recovery times
- Soft recovery characteristics
- High blocking voltage
- High current
- Low leakage current
- Very low stray inductance
  - Symmetrical design
  - Lead frames for power connections
- High level of integration



### Benefits

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

**All ratings @  $T_j = 25^\circ C$  unless otherwise specified**

### Absolute maximum ratings

Symbol	Parameter	Max ratings	Unit
$V_R$	Maximum DC reverse Voltage	1700	V
$V_{RRM}$	Maximum Peak Repetitive Reverse Voltage		
$I_{F(AV)}$	Maximum Average Forward Current	Duty cycle = 50%	A
		$T_c = 25^\circ C$	
		$T_c = 55^\circ C$	100
$I_{F(RMS)}$	RMS Forward Current	125	
$I_{FSM}$	Non-Repetitive Forward Surge Current	$T_j = 25^\circ C$	300

**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)

**Electrical Characteristics**

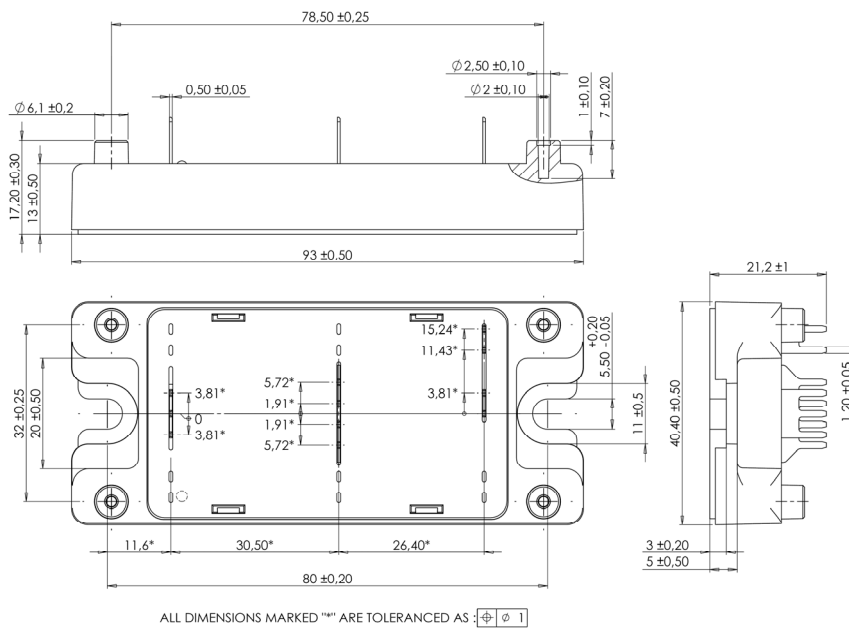
Symbol	Characteristic	Test Conditions		Min	Typ	Max	Unit
V <sub>F</sub>	Diode Forward Voltage	I <sub>F</sub> = 100A	T <sub>j</sub> = 25°C		2.2	2.5	V
			T <sub>j</sub> = 125°C		2.1		
I <sub>RM</sub>	Maximum Reverse Leakage Current	V <sub>R</sub> = 1700V	T <sub>j</sub> = 25°C			250	μA
			T <sub>j</sub> = 125°C			500	

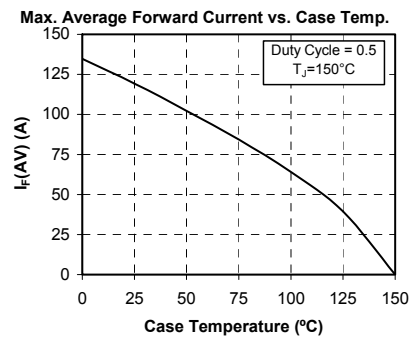
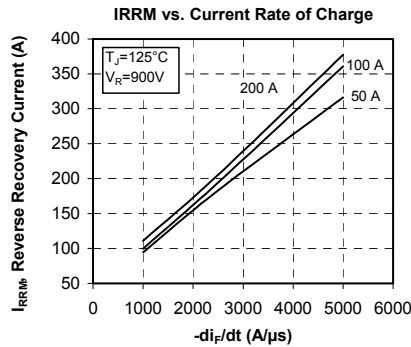
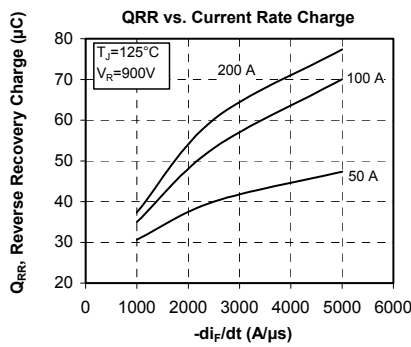
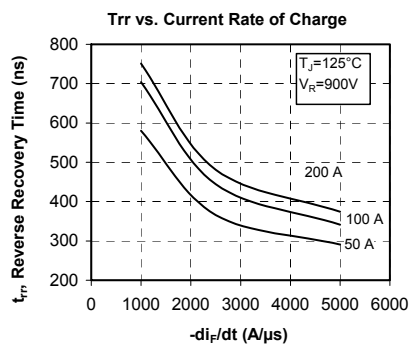
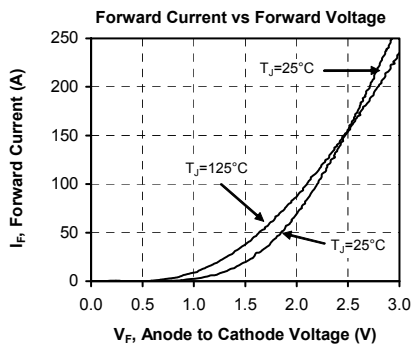
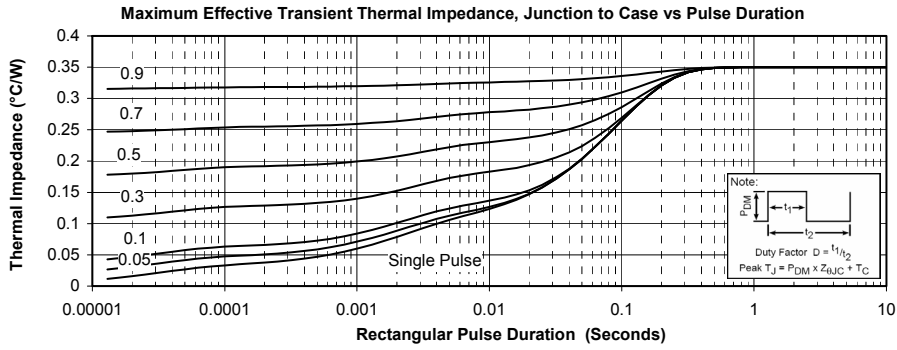
**Dynamic Characteristics**

Symbol	Characteristic	Test Conditions		Min	Typ	Max	Unit
t <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> = 100A V <sub>R</sub> = 900V di/dt = 1000A/μs	T <sub>j</sub> = 25°C		572		ns
			T <sub>j</sub> = 125°C		704		
Q <sub>rr</sub>	Reverse Recovery Charge	I <sub>F</sub> = 100A V <sub>R</sub> = 900V di/dt = 1000A/μs	T <sub>j</sub> = 25°C		20		μC
			T <sub>j</sub> = 125°C		35		
I <sub>RRM</sub>	Reverse Recovery Current	I <sub>F</sub> = 100A V <sub>R</sub> = 900V di/dt = 1000A/μs	T <sub>j</sub> = 25°C		70		A
			T <sub>j</sub> = 125°C		100		

**Thermal and package characteristics**

Symbol	Characteristic			Min	Typ	Max	Unit
R <sub>thJC</sub>	Junction to Case Thermal Resistance					0.35	°C/W
V <sub>ISOL</sub>	RMS Isolation Voltage, any terminal to case t = 1 min, 50/60Hz			4000			V
T <sub>J</sub>	Operating junction temperature range			-40		150	°C
T <sub>STG</sub>	Storage Temperature Range			-40		125	
T <sub>C</sub>	Operating Case Temperature			-40		100	
Torque	Mounting torque	To Heatsink	M5	2.5		4.7	N.m
Wt	Package Weight					160	g

**SP4 Package outline (dimensions in mm)**

**Typical Performance Curve**



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