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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!



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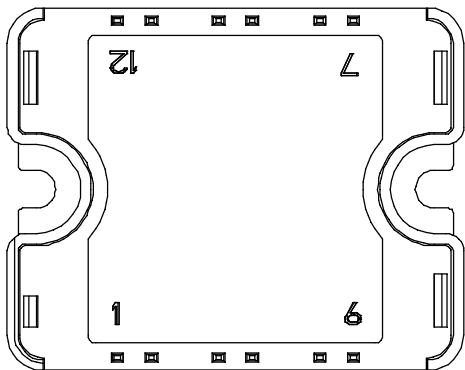
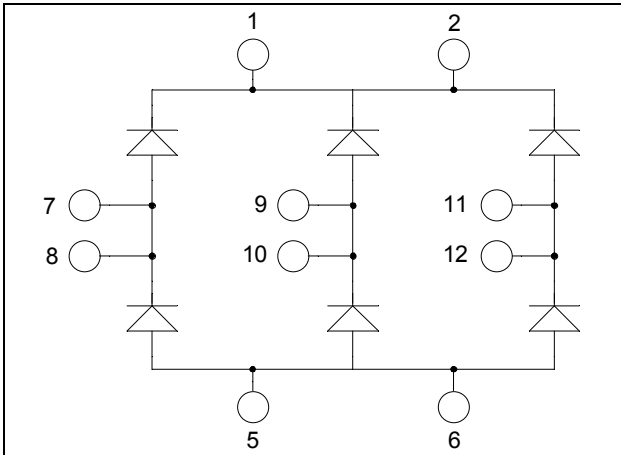
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## 3 Phase rectifier bridge Power Module

**$V_{RRM} = 1600V$**   
 **$I_C = 90A @ T_c = 80^\circ C$**



All multiple inputs and outputs must be shorted together  
 1/2 ; 5/6 ; 7/8 ; 9/10 ; 11/12

### Application

- Input rectifiers for inverter
- Battery DC power supply

### Features

- High blocking voltage
- High surge current
- Low leakage current
- Very low stray inductance
  - Symmetrical design
- High level of integration

### Benefits

- Solderable terminals for easy PCB mounting
- Direct mounting to heatsink (isolated package)
- Low profile
- RoHS compliant

### Absolute maximum ratings

Symbol	Parameter	Max ratings	Unit
$V_R$	Maximum DC reverse Voltage	1600	V
$V_{RRM}$	Maximum Peak Repetitive Reverse Voltage		
$I_F$	DC Forward Current	90	A
$I_{FSM}$	Non-Repetitive Forward Surge Current	850	
		$T_C = 80^\circ C$	
		$T_J = 45^\circ C$	
		$t=10ms$	

**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

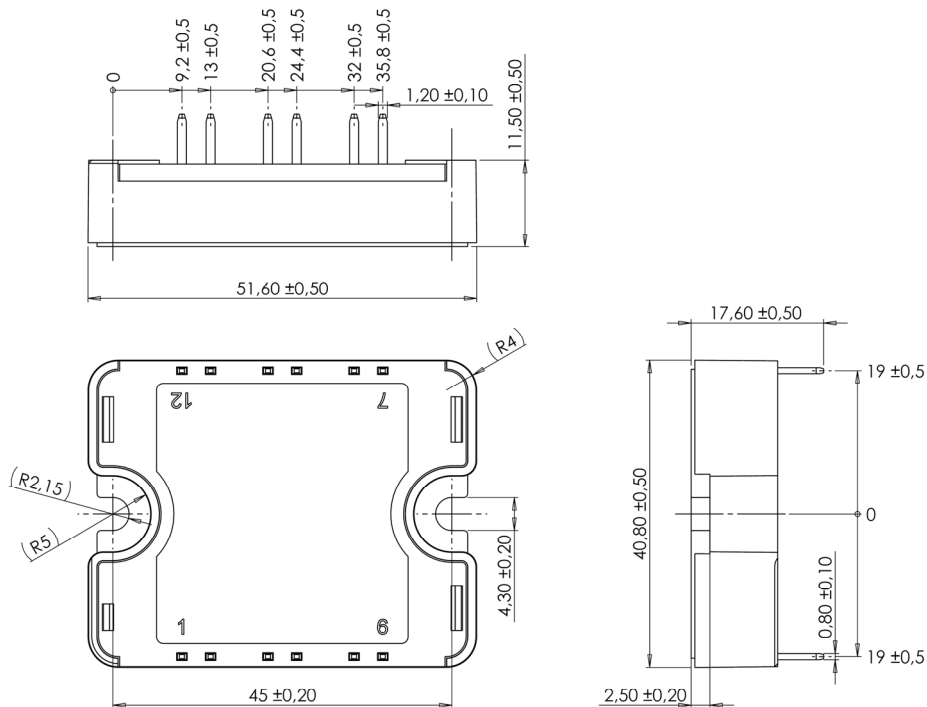
### Electrical Characteristics

Symbol	Characteristic	Test Conditions	Min	Typ	Max	Unit
$I_R$	Reverse Current	$V_R = 1600\text{V}$	$T_j = 25^\circ\text{C}$		50	$\mu\text{A}$
			$T_j = 125^\circ\text{C}$		4	$\text{mA}$
$V_F$	Forward Voltage	$I_F = 90\text{A}$	$T_j = 25^\circ\text{C}$		1.3	V
			$T_j = 125^\circ\text{C}$		1.1	
$V_T$	On – state Voltage			0.8		V
$r_T$	On – state Slope resistance			4.8		$\text{m}\Omega$

### Thermal and package characteristics

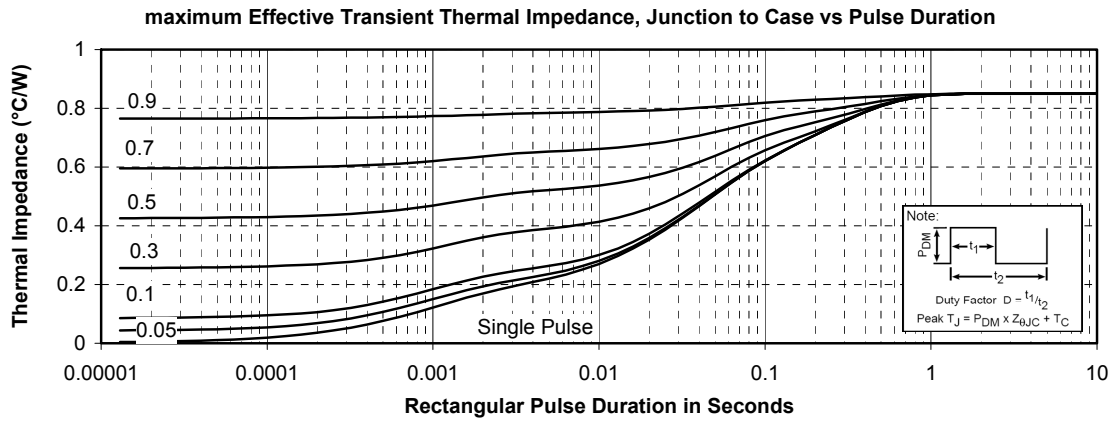
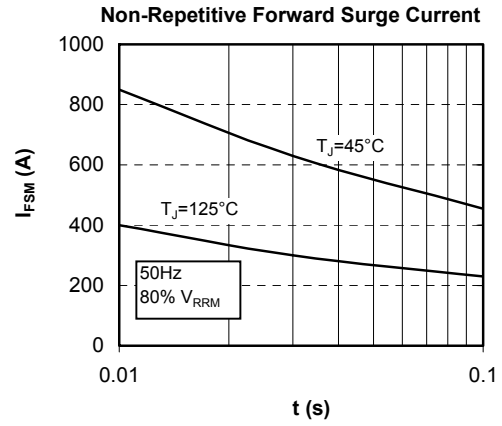
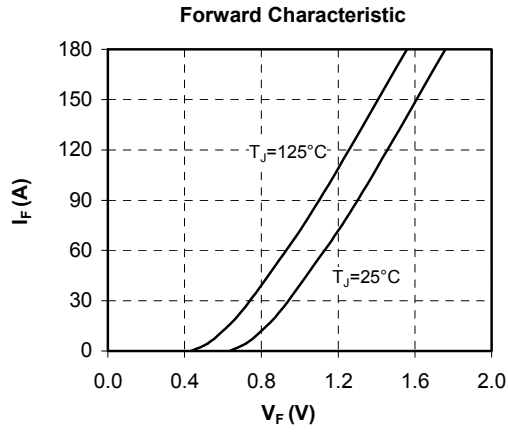
Symbol	Characteristic	Min	Typ	Max	Unit	
$R_{thJC}$	Junction to Case Thermal Resistance			0.85	$^\circ\text{C}/\text{W}$	
$V_{ISOL}$	RMS Isolation Voltage, any terminal to case $t=1$ min, 50/60Hz	4000			V	
$T_j$	Operating junction temperature range	-40		150	$^\circ\text{C}$	
$T_{STG}$	Storage Temperature Range	-40		125		
$T_C$	Operating Case Temperature	-40		100		
Torque	Mounting torque	To heatsink	M4	2	3	N.m
Wt	Package Weight				80	g

### SP1 Package outline (dimensions in mm)



See application note 1904 - Mounting Instructions for SP1 Power Modules on [www.microsemi.com](http://www.microsemi.com)

## Typical Performance Curve





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