



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

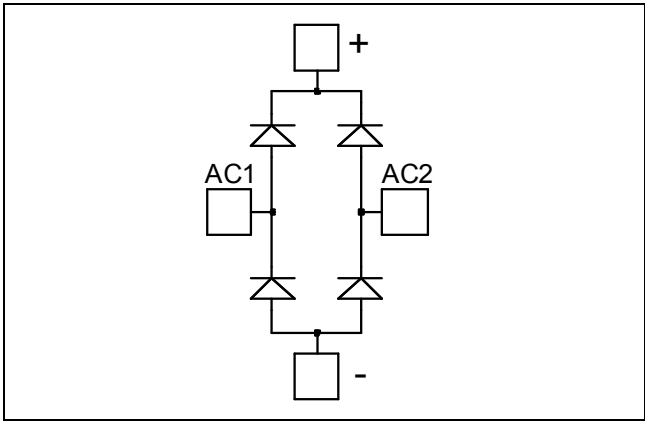
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Diode Full Bridge Power Module

$V_{RRM} = 1200V$
 $I_C = 200A @ T_c = 60^\circ C$

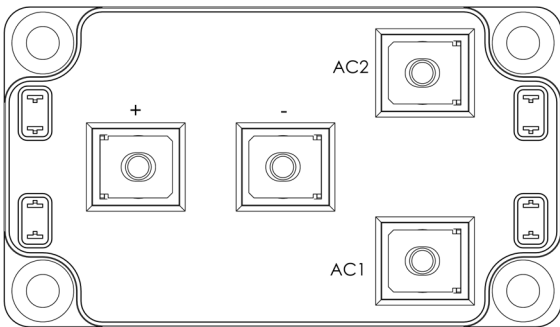


Application

- 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
 - M5 power connectors
- High level of integration



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

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

Absolute maximum ratings

Symbol	Parameter	Max ratings	Unit
V_R	Maximum DC reverse Voltage	1200	V
V_{RRM}	Maximum Peak Repetitive Reverse Voltage		
$I_{F(AV)}$	Maximum Average Forward Current	Duty cycle = 50%	235
			$T_C = 25^\circ C$
$I_{F(RMS)}$	RMS Forward Current	Duty cycle = 50%	200
			$T_C = 60^\circ C$
I_{FSM}	Non-Repetitive Forward Surge Current	8.3ms	235
			$T_C = 45^\circ C$
		1500	A

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

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 = 200A			2.4	3.0	V
		I _F = 300A			2.7		
		I _F = 200A	T _j = 125°C		1.8		
I _{RM}	Maximum Reverse Leakage Current	V _R = 1200V	T _j = 25°C			150	μA
			T _j = 125°C			600	
C _T	Junction Capacitance	V _R = 1200V			220		pF

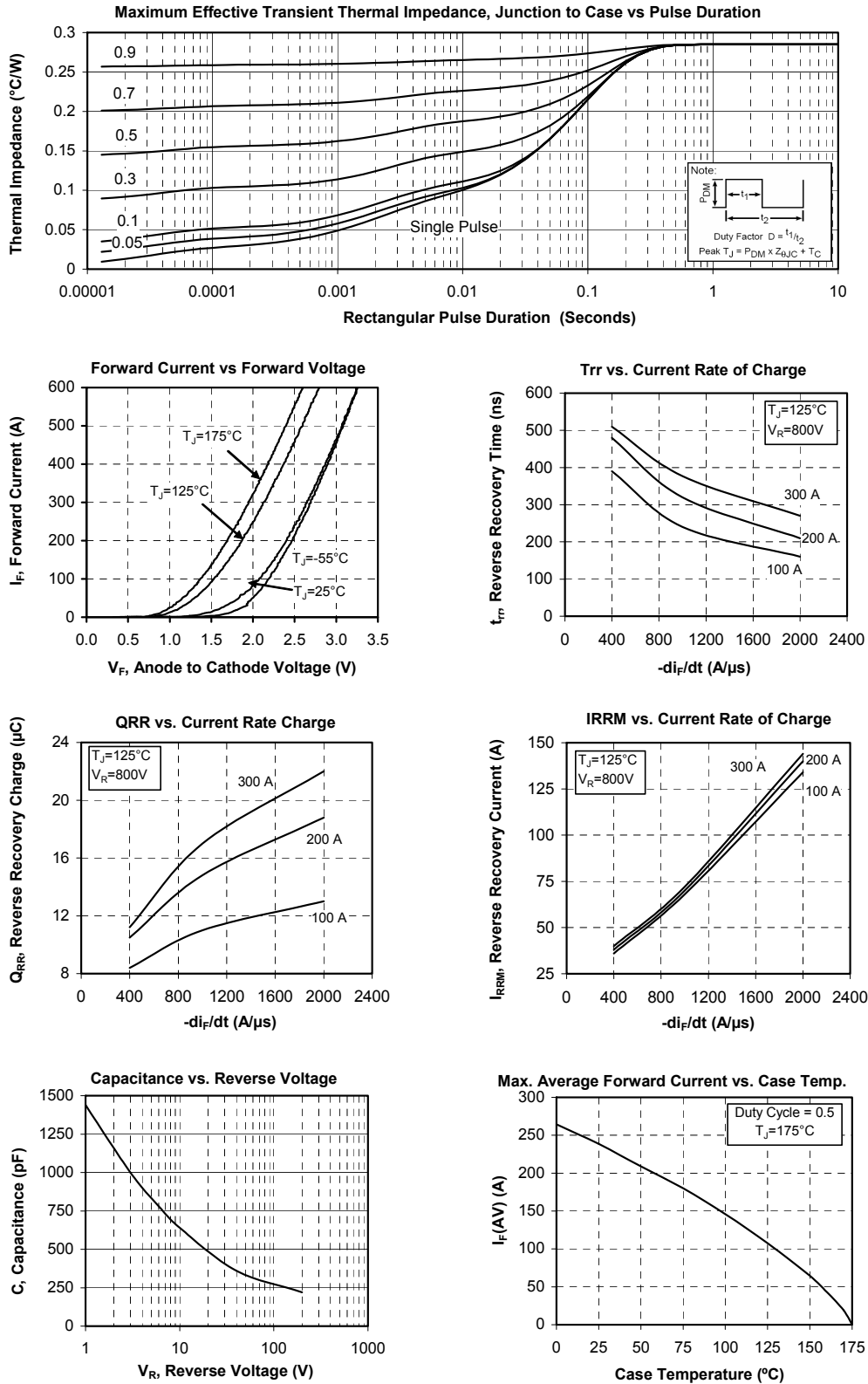
Dynamic Characteristics

<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 =1A, V _R =30V	T _j = 25°C		45		ns	
t _{rr}	Reverse Recovery Time	I _F = 200A V _R = 800V di/dt = 400A/μs	T _j = 25°C		385		ns	
			T _j = 125°C		480			
Q _{rr}	Reverse Recovery Charge		T _j = 25°C		2.1		μC	
			T _j = 125°C		10.5			
I _R RM	Reverse Recovery Current		T _j = 25°C		12		A	
			T _j = 125°C		38			
t _{rr}	Reverse Recovery Time		I _F = 200A V _R = 800V di/dt=2000A/μs	T _j = 125°C		210		ns
Q _{rr}	Reverse Recovery Charge					19		μC
I _R RM	Reverse Recovery Current				140		A	

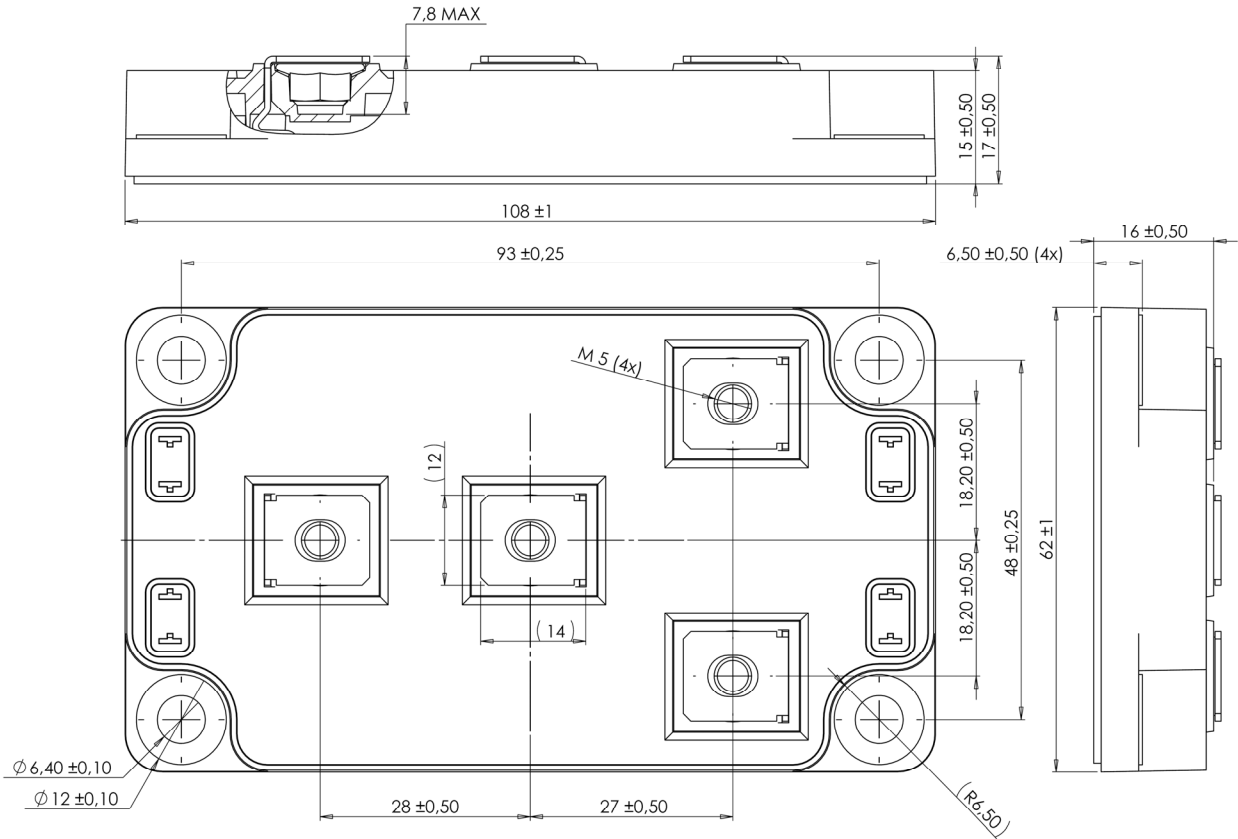
Thermal and package characteristics

<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			0.285	°C/W	
V _{ISOL}	RMS Isolation Voltage, any terminal to case t =1 min, 50/60Hz	4000			V	
T _J	Operating junction temperature range	-40		175	°C	
T _{STG}	Storage Temperature Range	-40		125		
T _C	Operating Case Temperature	-40		100		
Torque	Mounting torque	To heatsink	M6	3	5	N.m
		For terminals	M5	2	3.5	
Wt	Package Weight			300	g	

Typical Performance Curve



SP6 Package outline (dimensions in mm)



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