



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

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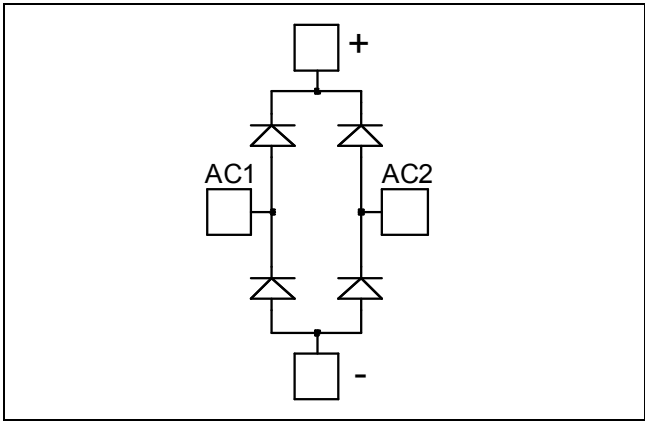
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Diode Full Bridge Power Module

$V_{RRM} = 200V$
 $I_C = 100A @ T_c = 80^\circ C$



Application

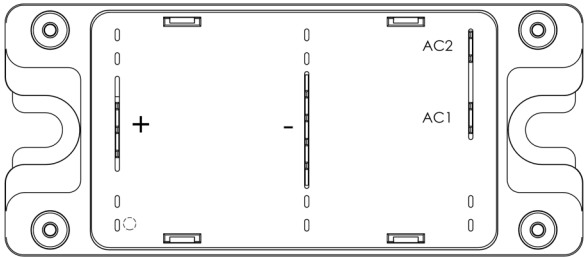
- Uninterruptible Power Supply (UPS)
- Induction heating
- Welding equipment
- High speed rectifiers

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



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% | $T_C = 25^\circ C$ | A |
| | | | $T_C = 80^\circ C$ | |
| $I_{F(RMS)}$ | RMS Forward Current | Duty cycle = 50% | $T_C = 45^\circ C$ | |
| I_{FSM} | Non-Repetitive Forward Surge Current | 8.3ms | $T_C = 45^\circ C$ | |

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 |
|----------|---------------------------------|---------------------|---------------------------|-----|-----|---------------|
| V_F | Diode Forward Voltage | $I_F = 100\text{A}$ | | 1.0 | 1.1 | V |
| | | $I_F = 200\text{A}$ | | 1.4 | | |
| | | $I_F = 100\text{A}$ | $T_j = 125^\circ\text{C}$ | 0.9 | | |
| I_{RM} | Maximum Reverse Leakage Current | $V_R = 200\text{V}$ | $T_j = 25^\circ\text{C}$ | | 250 | μA |
| | | | $T_j = 125^\circ\text{C}$ | | 500 | |
| C_T | Junction Capacitance | $V_R = 200\text{V}$ | | 400 | | pF |

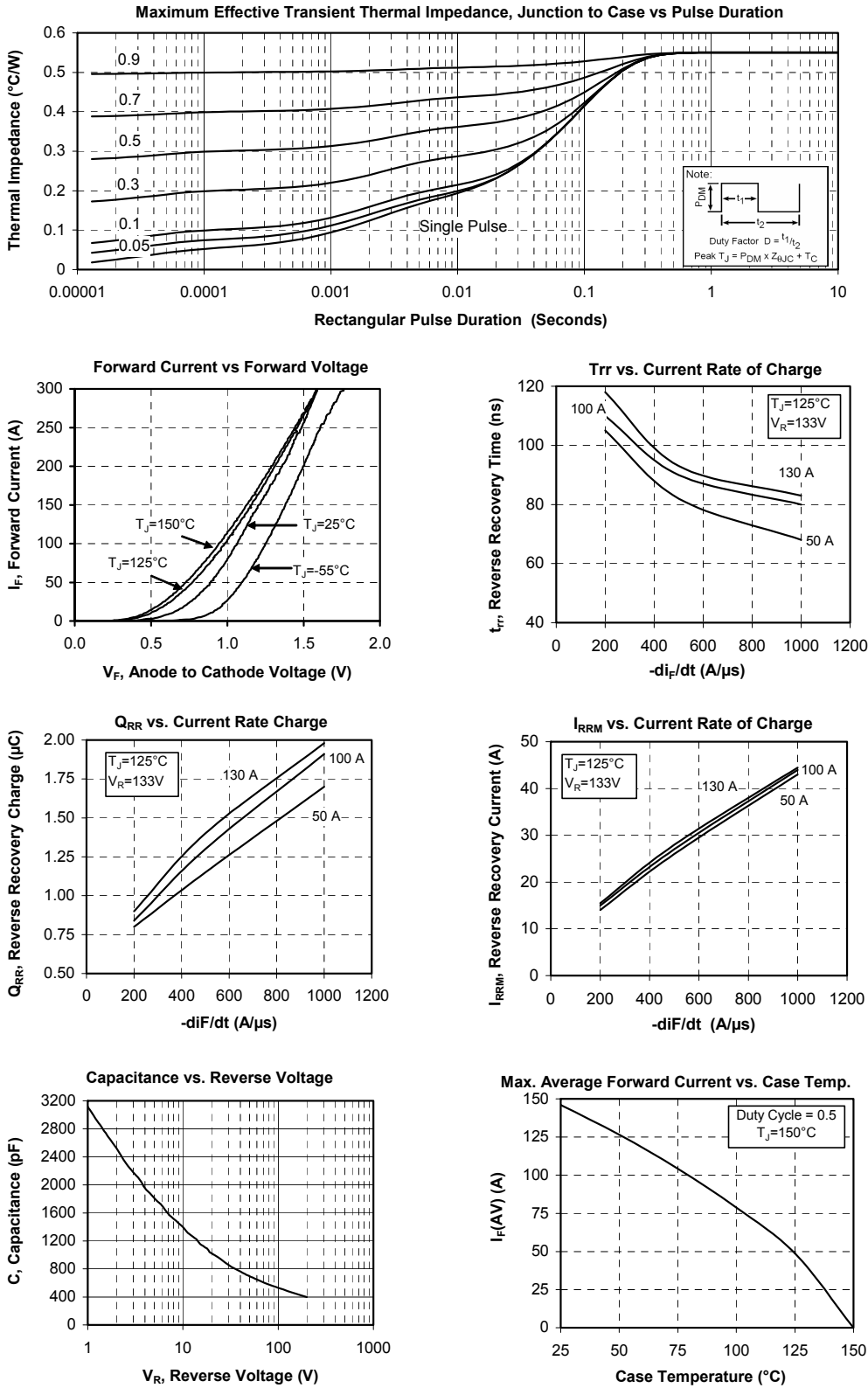
Dynamic Characteristics

| Symbol | Characteristic | Test Conditions | Min | Typ | Max | Unit |
|-----------|--------------------------|--|---------------------------|-----|------|---------------|
| t_{rr} | Reverse Recovery Time | $I_F = 1\text{A}, V_R = 30\text{V}$ $di/dt = 100\text{A}/\mu\text{s}$ | $T_j = 25^\circ\text{C}$ | | 39 | ns |
| t_{rr} | Reverse Recovery Time | | $T_j = 25^\circ\text{C}$ | | 60 | ns |
| | | | $T_j = 125^\circ\text{C}$ | | 110 | |
| Q_{rr} | Reverse Recovery Charge | $I_F = 100\text{A}$ $V_R = 133\text{V}$ $di/dt = 200\text{A}/\mu\text{s}$ | $T_j = 25^\circ\text{C}$ | | 200 | nC |
| | | | $T_j = 125^\circ\text{C}$ | | 840 | |
| I_{RRM} | Reverse Recovery Current | | $T_j = 25^\circ\text{C}$ | | 6 | A |
| | | | $T_j = 125^\circ\text{C}$ | | 15 | |
| t_{rr} | Reverse Recovery Time | $I_F = 100\text{A}$ $V_R = 133\text{V}$ $di/dt = 1000\text{A}/\mu\text{s}$ | $T_j = 125^\circ\text{C}$ | | 80 | ns |
| Q_{rr} | Reverse Recovery Charge | | | | 1.91 | μC |
| I_{RRM} | Reverse Recovery Current | | | | 44 | A |

Thermal and package characteristics

| Symbol | Characteristic | Min | Typ | Max | Unit | |
|------------|--|-------------|-----|------|---------------------------|-----|
| R_{thJC} | Junction to Case Thermal Resistance | | | 0.55 | $^\circ\text{C}/\text{W}$ | |
| V_{ISOL} | RMS Isolation Voltage, any terminal to case $t = 1\text{ min}, 50/60\text{Hz}$ | 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 | M5 | 2.5 | 4.7 | N.m |
| Wt | Package Weight | | | | 160 | g |

Typical Performance Curve



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