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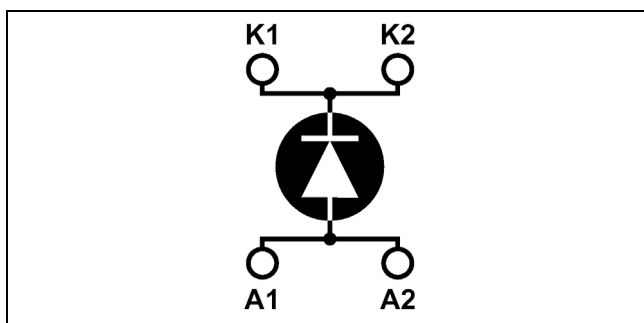
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Single diode Power Module

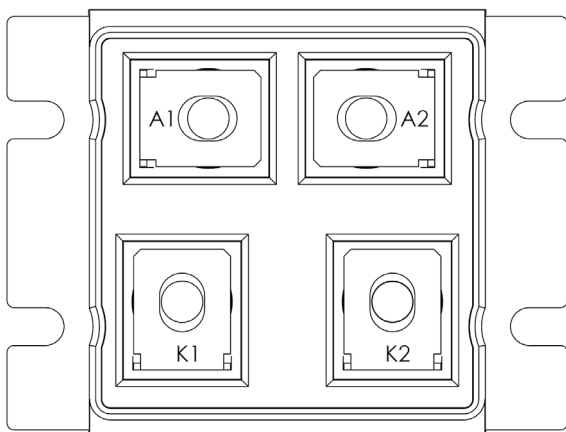
$$V_{CES} = 400V$$

$$I_C = 500A @ T_c = 80^{\circ}C$$



Application

- Anti-Parallel diode
 - Switchmode Power Supply
 - Inverters
- Snubber diode
- Uninterruptible Power Supply (UPS)
- Induction heating
- Welding equipment
- High speed rectifiers
- Electric vehicles



Features

- Ultra fast recovery times
- Soft recovery characteristics
- Very low stray inductance
- High blocking voltage
- High current
- Low leakage current

Benefits

- 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			400	V	
V _{RRM}	Maximum Peak Repetitive Reverse Voltage					
I _{F(AV)}	Maximum Average Forward Current	Duty cycle = 50%	T _c = 25°C	500	A	
			T _c = 80°C	500		
I _{F(RMS)}	RMS Forward Current			850		
I _{FSM}	Non-Repetitive Forward Surge Current		T _j = 25°C	5000		



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	$I_F = 500\text{A}$			1.3	1.5	V
		$I_F = 1000\text{A}$			1.6		
		$I_F = 500\text{A}$	$T_j = 125^\circ\text{C}$		1.2		
I_{RM}	Maximum Reverse Leakage Current	$V_R = 400\text{V}$	$T_j = 25^\circ\text{C}$			2000	μA
			$T_j = 125^\circ\text{C}$			5000	
C_T	Junction Capacitance	$V_R = 200\text{V}$			1300		pF

Dynamic Characteristics

Symbol		Characteristic	Test Conditions		Min	Typ	Max	Unit
t _{rr}	Reverse Recovery Time	I _F = 500A V _R = 268V di/dt=1000A/μs	T _j = 25°C			50		ns
			T _j = 125°C			150		
Q _{rr}	Reverse Recovery Charge		T _j = 25°C			750		nC
			T _j = 125°C			5250		
I _{rr}	Reverse Recovery Current		T _j = 25°C			30		A
			T _j = 125°C			65		
t _{rr}	Reverse Recovery Time	I _F = 500A V _R = 268V di/dt=4000A/μs	T _j = 125°C			90		ns
Q _{rr}	Reverse Recovery Charge					10.5		μC
I _{rr}	Reverse Recovery Current					195		A

Thermal and package characteristics

Symbol	Characteristic	Min		Typ	Max	Unit
R_{thJC}	Junction to Case Thermal Resistance				0.08	$^\circ\text{C}/\text{W}$
V_{ISOL}	RMS Isolation Voltage, any terminal to case $t = 1\text{ min}$, 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	M5	2.5		N.m
		For terminals	M6	3		
Wt	Package Weight				250	g



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