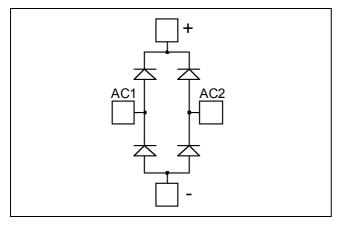
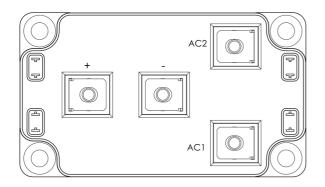


APTDF200H170G

Diode Full Bridge Power Module





$V_{RRM} = 1700V$ $I_{C} = 200A$ @ Tc = 55°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 designM5 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 (a) $T_i = 25^{\circ}C$ 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			1700	v
$I_{F(AV)}$	Maximum Average Forward	Duty $ayala = 50\%$	$T_c = 25^{\circ}C$	240	
	Current	Duty cycle = 50%	$T_c = 55^{\circ}C$	200	А
I _{F(RMS)}	RMS Forward Current		250	2 1	
I _{FSM}	Non-Repetitive Forward Surge Current $T_j = 25$		$T_j = 25^{\circ}C$	600	

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

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Electrical Characteristics

Symbol	Characteristic	Test Conditions		Min	Тур	Max	Unit
$V_{\rm F}$	Diode Forward Voltage	$I_{\rm F} = 200 {\rm A}$	$T_i = 25^{\circ}C$		2.2	2.5	V
			$T_{i} = 125^{\circ}C$		2.1		
I _{RM}	Maximum Reverse Leakage Current	$V_{R} = 1700V$	$T_i = 25^{\circ}C$			350	
			$T_{j} = 125^{\circ}C$			600	μA

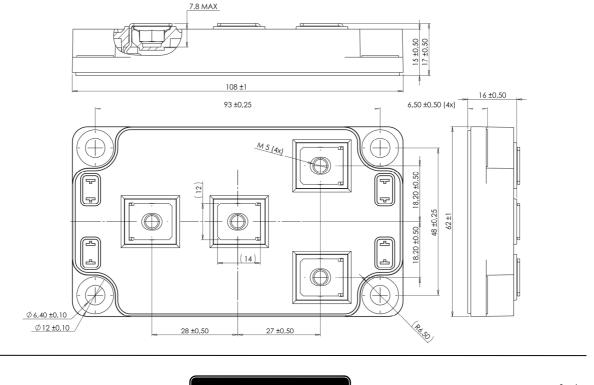
Dynamic Characteristics

Symbol	Characteristic	Test Conditions		Min	Тур	Max	Unit	
t _{rr}	Reverse Recovery Time		$T_j = 25^{\circ}C$		572		ns	
	Reverse Recovery Time		$T_j = 125^{\circ}C$		704		115	
Q _{rr}	Reverse Recovery Charge	$I_{\rm F} = 200 {\rm A}$ $V_{\rm R} = 900 {\rm V}$	$T_j = 25^{\circ}C$		40		μC	
	Reverse Recovery Charge	$di/dt = 2000 A/\mu s$	$T_{j} = 125^{\circ}C$		70		μΟ	
I _{RRM}	I _{RRM} R	Reverse Recovery Current		$T_j = 25^{\circ}C$		140		А
				$T_{j} = 125^{\circ}C$		200		11

Thermal and package characteristics

Symbol	Characteristic		Min	Тур	Max	Unit	
R _{thJC}	Junction to Case Thermal Resistance					0.18	°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		150	°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
	Mounting torque	For terminals	M5	2		3.5	19.111
Wt	Package Weight					300	g

SP6 Package outline (dimensions in mm)



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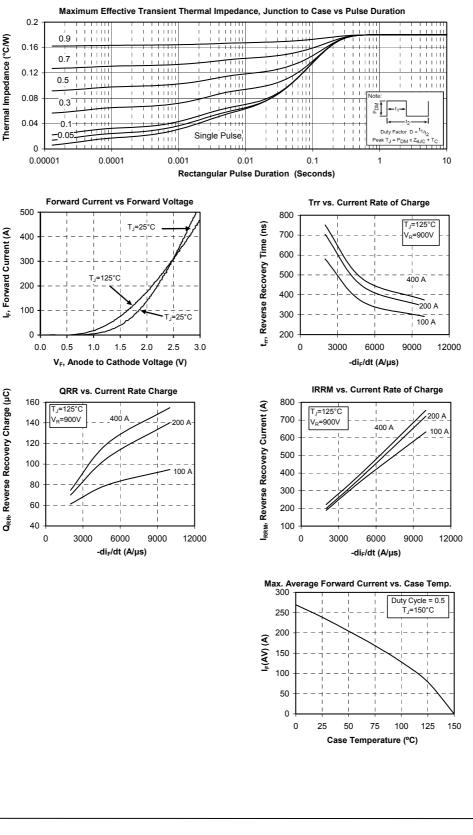
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Typical Performance Curve



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