

# FRD MODULE 30A/600V

# P2H30F6

## FEATURES

- \* Compatible with Isolated Base SOT227
- \* Dual Separated Diodes
- \* Ultra – Fast Recovery
- \* Low Forward Voltage Drop
- \* High Surge Capability

## OUTLINE DRAWING

See the Next Page

## TYPICAL APPLICATIONS

- \* High Frequency Rectification

## Maximum Ratings

Approx Net Weight:35g

Parameter	Symbol	Type / Grade		Unit
		P2H30F6	-	
Repetitive Peak Reverse Voltage *1	V <sub>RRM</sub>	600	-	V
Non Repetitive Peak Reverse Voltage *1	V <sub>RSM</sub>	-	-	

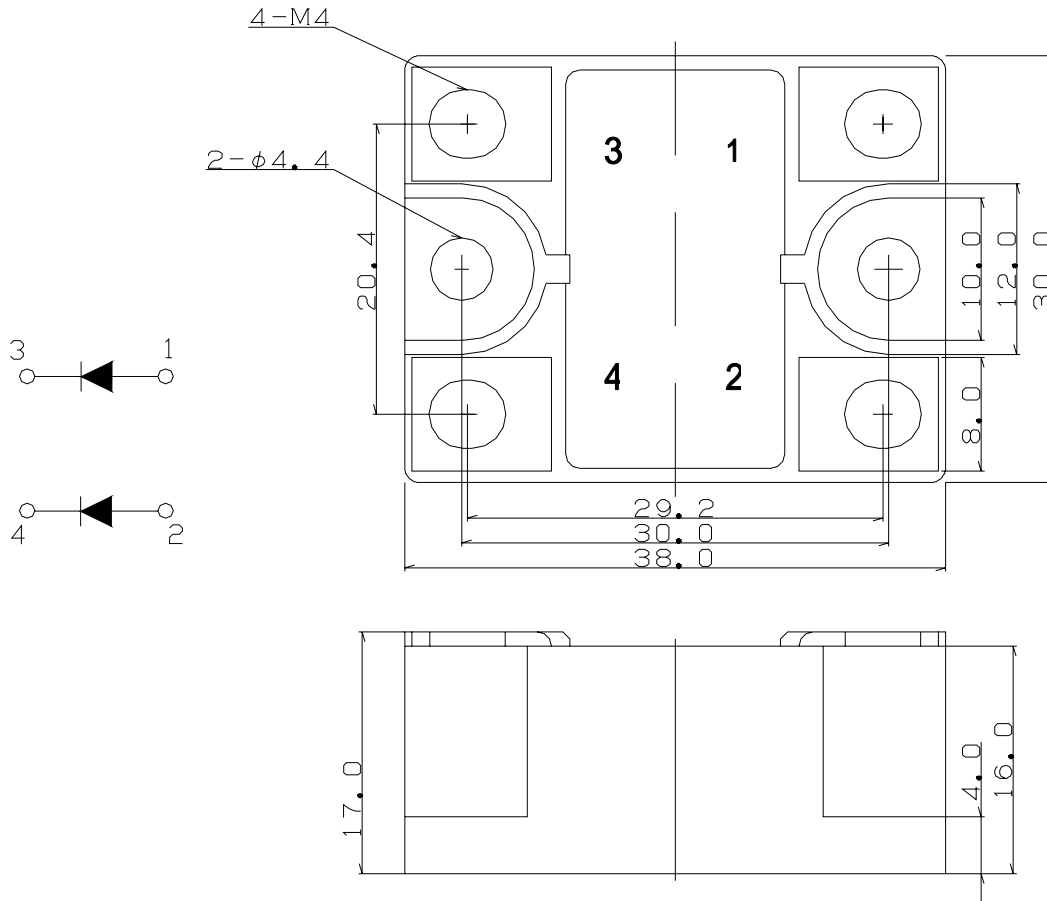
Parameter		Conditions	Max Rated Value	Unit	
Average Rectified Output Current *1	I <sub>O(AV)</sub>	50Hz Half Sine Wave condition T <sub>c</sub> =64°C	30	A	
RMS Forward Current *1	I <sub>F(RMS)</sub>		47	A	
Surge Forward Current *1	I <sub>FSM</sub>	50 Hz Half Sine Wave,1Pulse Non-repetitive	400	A	
I Squared t *1	I <sup>2</sup> t	2msec to 10msec	800	A <sup>2</sup> s	
Operating JunctionTemperature Range	T <sub>jw</sub>		-40 to +150	°C	
Storage Temperature Range	T <sub>stg</sub>		-40 to +125	°C	
Isolation Voltage	Viso	Base Plate to Terminals, AC1min	2500	V	
Mounting torque	Case mounting	F <sub>tor</sub>	M4Screw	1.5(1.4)	N.m
	Terminals		M4Screw	1.5(1.4)	

## Electrical • Thermal Characteristics

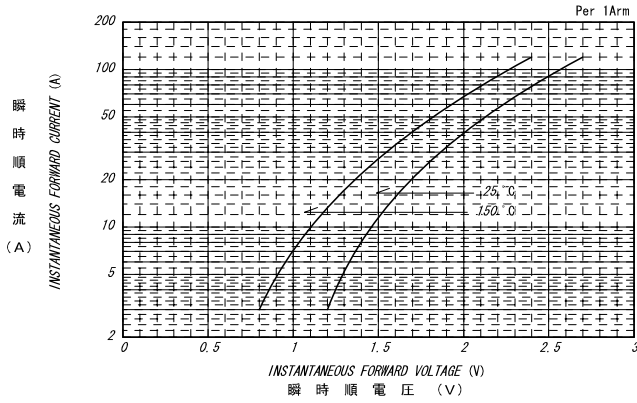
Characteristics	Symbol	Test Conditions	Max.	Unit
Peak Reverse Current *1	I <sub>RM</sub>	V <sub>RM</sub> = V <sub>RRM</sub> , T <sub>j</sub> = 25°C	50	μA
Peak Forward Voltage *1	V <sub>FM</sub>	I <sub>FM</sub> = 30A, T <sub>j</sub> =25°C	1.70	V
Reverse Recovery Time	trr	T <sub>j</sub> =25°C , I <sub>FM</sub> =10A, -di/dt=50A/μs	60	ns
Thermal Resistance *1	R <sub>th(j-c)</sub>	Junction to Case	1.53	°C/W
	R <sub>th(c-f)</sub>	Base Plate to Heat Sink with Thermal Compound	0.3	

\*1: Value Per 1Arm

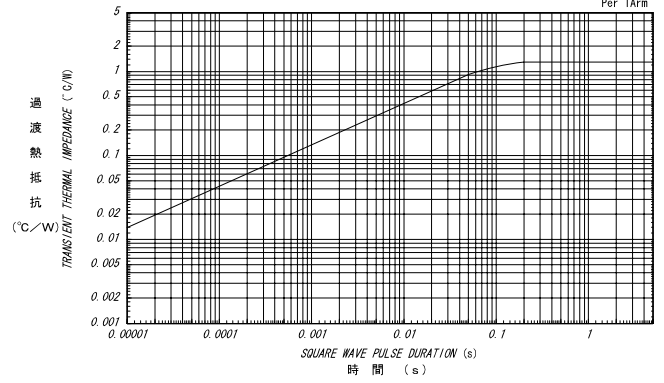
P2H30F6 OUTLINE DRAWING (Dimensions in mm)



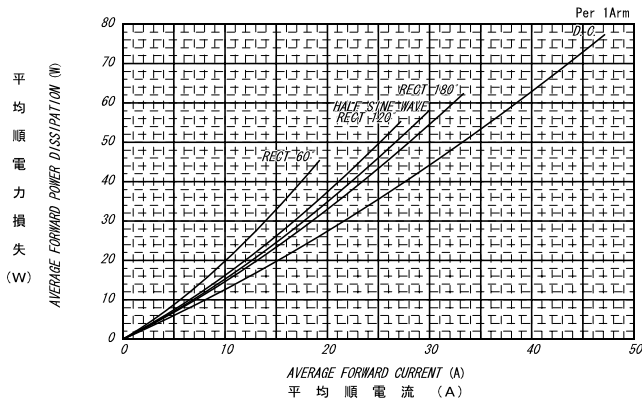
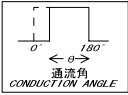
順電圧特性  
FORWARD CURRENT VS. VOLTAGE



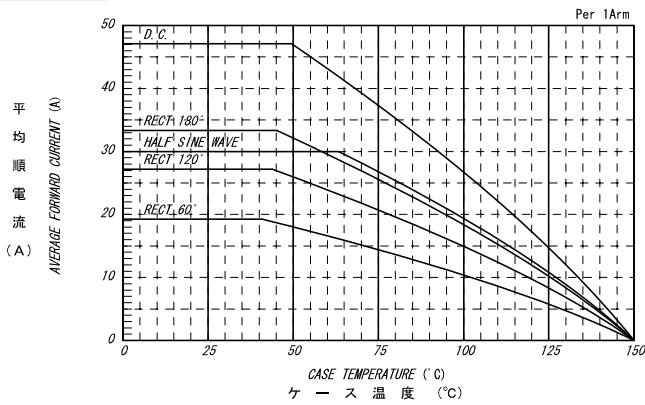
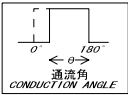
過渡熱抵抗特性  
MAXIMUM TRANSIENT THERMAL IMPEDANCE  
Junction to Case



平均順電力損失特性  
AVERAGE FORWARD POWER DISSIPATION



平均順電流 - ケース温度定格  
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



サージ順電流定格  
SURGE CURRENT RATINGS

f=50Hz, Half Sine Wave, Non-Repetitive, No Load

