### Nihon Inter Electronics Corporation

# FRD MODULE 50A/600V/trr:100nsec

## PD50F6

OUTLINE DRAWING

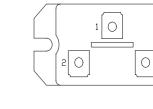
#### FEATURES

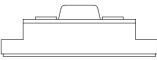
- \* Isolated Base
- \* Dual Diode Doubler Circuit
- \* Ultra Fast Recovery
- \* High Surge Capability
- \* UL Recognized, File No. E187184

Maximum Ratings

#### TYPICAL APPLICATIONS

\* High Frequency Rectification





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#### Approx Net Weight:105g

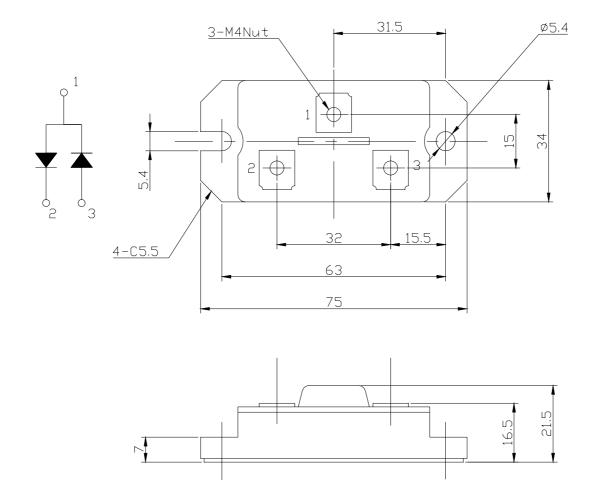
Voltage Rating	Symbol	PD50F6		Unit
Repetitive Peak Reverse Voltage per Arm	VRRM	500		V
Electrical Rating		Condition	Rating	
Average Rectified Output Current	Io	50Hz Half Sine Wave condition per Arm Tc=89°C	50	А
RMS Forward Current	I <sub>F(RMS)</sub>	per Arm	78	А
Surge Forward Current	I <sub>FSM</sub>	50 Hz Half Sine Wave,1cycle Non-repetitive per Arm	800	А
I Squared t	I²t	2 msec to 10 msec per Arm	3200	A <sup>2</sup> s
Operating JunctionTemperature Range	Tjw		-40 to +150	°C
Storage Temperature Range	Tstg		-40 to +125	°C
Isoration Voltage	Viso	Base Plate to Terminal, AC1min	2000	V
Mounting torque	Ftor	Case mounting(recommended)	2.6	N•m
		Terminal Screw(recommended)	1.4	

#### Electrical • Thermal Characteristics

Characteristics	Symbol	Test Conditions	Max.	Unit	
Peak Forward Voltage	VFM	I <sub>FM</sub> = 50A, Tj=25°C, per Arm	1.50	V	
Peak Reverse Current	I <sub>RM</sub>	V <sub>RM</sub> = V <sub>RRM</sub> , Tj= 150°C, per Arm	10	mA	
Reverse Recovery Time	trr	I <sub>FM</sub> = 10A, -di/dt= 50 A/µs, Ta= 25°C Per Arm	100	ns	
Thermal Resistance	Rth(j-c)	Junction to Case per Arm	0.8	°C/W	
	Rth(c-f)	Base Plate to Heat Sink with Thermal Compound	0.1		
Internal Lead Inductance	Ls	Anode Terminal to Cathode Terminal Per Element	30	nH	



### PD50F6 OUTLINE DRAWING (Dimensions in mm)



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