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

# **PC50F6**

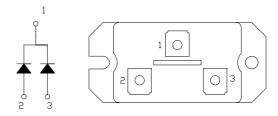
**OUTLINE DRAWING** 

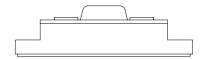
### **FEATURES**

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

#### TYPICAL APPLICATIONS

\* High Frequency Rectification





## Maximum Ratings

Approx Net Weight:105g

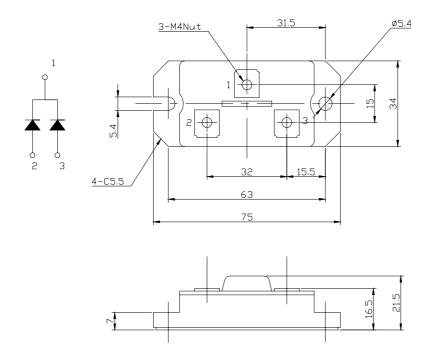
Voltage Rating	Symbol	PC50F6		Unit
Repetitive Peak Reverse Voltage per Arm	Vrrm	600		V
Electrical Rating		Condition	Rating	
Average Rectified Output Current	Io	50Hz Half Sine Wave condition per Arm Tc=89°C	50	Α
RMS Forward Current	I <sub>F(RMS)</sub>	per Arm	78	Α
Surge Forward Current	LCM.	50 Hz Half Sine Wave,1cycle Non-repetitive per Arm	800	A
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	$V_{\rm FM}$	I <sub>FM</sub> = 50A, Tj=25°C, per Arm	1.50	V
Peak Reverse Current	$I_{RM}$	V <sub>RM</sub> = V <sub>RRM</sub> , Tj= 150°C, per Arm	10	mA
Reverse Recovery Time	Trr	$I_{FM}$ = 10A, -di/dt= 50 A/ $\mu$ s, Ta= 25°C Per Arm	100	ns
Thermal Resistance	Rth(j-c)	Junction to Case per Arm	0.8	
		Base Plate to Heat Sink with Thermal Compound	0.1	°C/W
Internal Lead Inductance	Ls	Anode Terminal to Cathode Terminal Per Element	30	nН

# Nihon Inter Electronics Corporation

# PC50F6 OUTLINE DRAWING (Dimensions in mm)



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