Nihon Inter Electronics Corporation

FRD MODULE 300A/1200V/trr:250nsec PD300F12

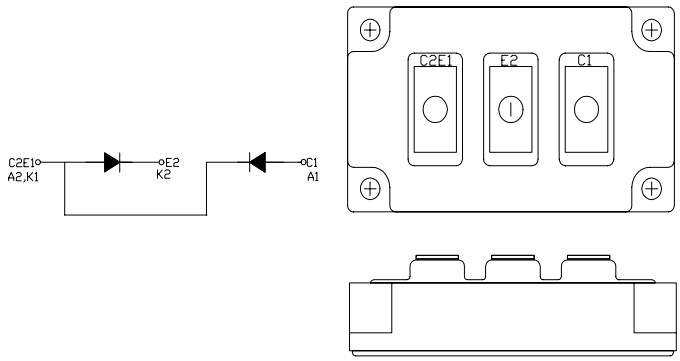
OUTLINE DRAWING

FEATURES

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

TYPICAL APPLICATIONS

* High Frequency Rectification



Maximum Ratings

Approx Net Weight:450g

Voltage Rating	Symbol	PD300F12		Unit
Repetitive Peak Reverse Voltage per Arm	V_{RRM}	1200		V
Electrical Rating		**Condition**	**Rating**	
Direct Forward Current	$I_{F(DC)}$	per Arm Tc=81℃	300	A
RMS Forward Current	$I_{F(RMS)}$	per Arm	300	A
Surge Forward Current	I_{FSM}	50 Hz Half Sine Wave,1cycle Non-repetitive per Arm	3000	A
I Squared t	I^2t	2 msec to 10 msec per Arm	45000	A^2s
Operating JunctionTemperature Range	Tjw		-40 to +150	℃
Storage Temperature Range	Tstg		-40 to +125	℃
Isoration Voltage	Viso	Base Plate to Terminal, AC1min	2500	V
Mounting torque	Ftor	Case mounting(recommended)	2.8	N•m
		Terminal Screw(recommended)	2.8	

Electrical • Thermal Characteristics

Characteristics	Symbol	Test Conditions	Max.	Unit
Peak Forward Voltage	V_{FM}	I_{FM}= 300A, Tj=25℃, per Arm	2.60	V
Peak Reverse Current	I_{RM}	V_{RM}= V_{RRM}, Tj= 150℃, per Arm	60	mA
Reverse Recovery Time	trr	I_{FM}= 10A, -di/dt= 50 A/μs, Ta= 25℃ Per Arm	250	ns
Thermal Resistance	Rth(j-c)	Junction to Case per Arm	0.1	℃/W
	Rth(c-f)	Base Plate to Heat Sink with Thermal Compound	0.06	
Internal Lead Inductance	Ls	Anode Terminal to Cathode Terminal Per Element	30	nH

PD300F12 OUTLINE DRAWING (Dimensions in mm)