

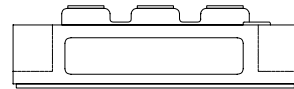
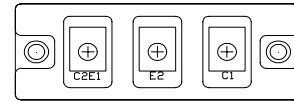
# FRD MODULE 100A/1200V/trr:250nsec

# PD100F12

## OUTLINE DRAWING

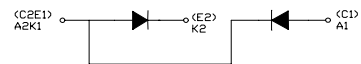
### FEATURES

- \* 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:210g

Voltage Rating	Symbol	PD100F12		Unit
Repetitive Peak Reverse Voltage per Arm	$V_{RRM}$	1200		V
<b>Electrical Rating</b>		<b>Condition</b>	<b>Rating</b>	
Average Rectified Output Current	$I_o$	50Hz Half Sine Wave condition per Arm $T_c=60^\circ\text{C}$	100	A
RMS Forward Current	$I_{F(RMS)}$	per Arm	157	A
Surge Forward Current	$I_{FSM}$	50 Hz Half Sine Wave, 1 cycle Non-repetitive per Arm	1000	A
I Squared t	$I^2t$	2 msec to 10 msec per Arm	5000	$\text{A}^2\text{s}$
Operating Junction Temperature Range	$T_{jw}$		-40 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$		-40 to +125	$^\circ\text{C}$
Isolation 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	$V_{FM}$	$I_{FM}= 100\text{A}$ , $T_j=25^\circ\text{C}$ , per Arm	2.60	V
Peak Reverse Current	$I_{RM}$	$V_{RM}= V_{RRM}$ , $T_j= 150^\circ\text{C}$ , per Arm	20	mA
Reverse Recovery Time	trr	$I_{FM}= 10\text{A}$ , $-di/dt= 50 \text{ A}/\mu\text{s}$ , $T_a= 25^\circ\text{C}$ Per Arm	250	ns
Thermal Resistance	Rth(j-c)	Junction to Case per Arm	0.28	$^\circ\text{C}/\text{W}$
	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

PD100F12 OUTLINE DRAWING (Dimensions in mm)

