

# DIODE MODULE 100A/1200 to 1600V

PC10012 PC10016

PD10012 PD10016

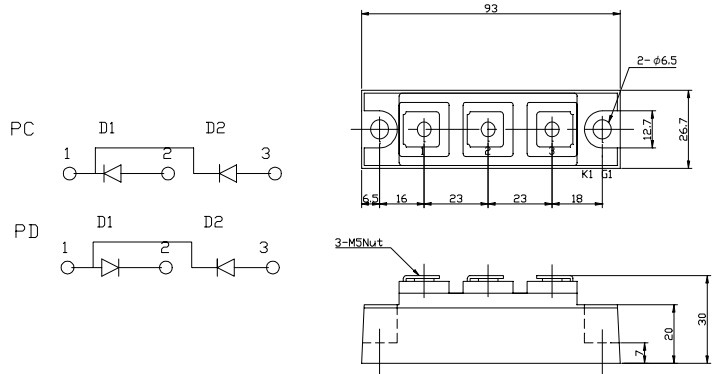
## FEATURES

- \* Isolated Base
- \* Dual Diodes Cathode Common and Cascaded Circuit
- \* High Surge Capability
- \* UL Recognized, File No. E187184

## TYPICAL APPLICATIONS

- \* Rectified For General Use

## OUTLINE DRAWING



## Maximum Ratings

Approx Net Weight:155g

Parameter	Symbol	Type / Grade		Unit
		PC10012 / PD10012	PC10016 / PD10016	
Repetitive Peak Reverse Voltage *1	$V_{RRM}$	1200	1600	V
Non Repetitive Peak Reverse Voltage *1	$V_{RSM}$	1300	1700	

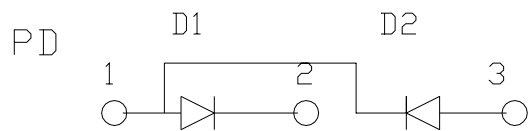
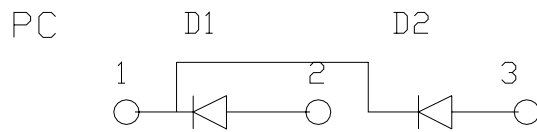
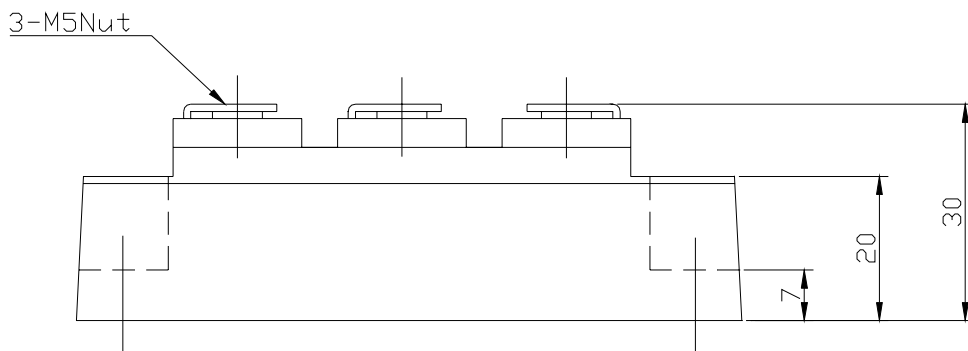
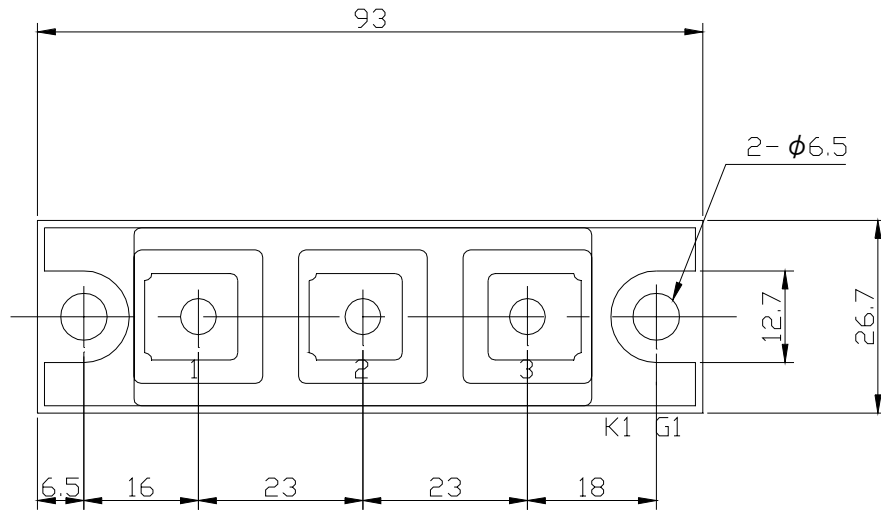
Parameter		Conditions	Max Rated Value	Unit
Average Rectified Output Current *1	$I_{O(AV)}$	50Hz Half Sine Wave condition $T_c=80^\circ\text{C}$	100	A
RMS Forward Current *1	$I_{F(RMS)}$		156	A
Surge Forward Current *1	$I_{FSM}$	50 Hz Half Sine Wave, 1Pulse Non-repetitive	2000	A
I Squared t *1	$I^2t$	2msec to 10msec	20000	$\text{A}^2\text{s}$
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	$V_{iso}$	Base Plate to Terminals, AC1min	2500	V
Mounting torque	Case mounting	M6 Screw	2.4 to 3.5	N.m
	Terminals	M5 Screw	2.4 to 2.8	

## Electrical • Thermal Characteristics

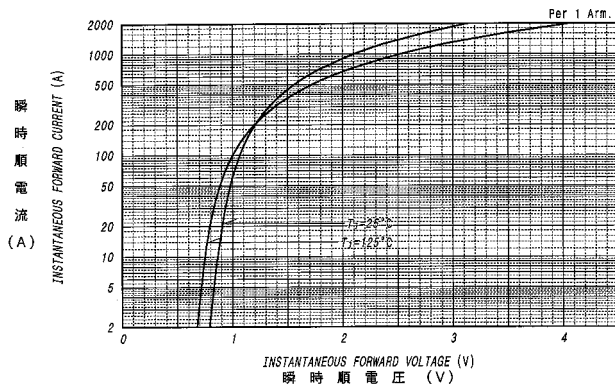
Characteristics	Symbol	Test Conditions	Max.	Unit
Peak Reverse Current *1	$I_{RM}$	$V_{RM}= V_{RRM}, T_j= 125^\circ\text{C}$	20	mA
Peak Forward Voltage *1	$V_{FM}$	$I_{FM}= 320\text{A}, T_j=25^\circ\text{C}$	1.35	V
Thermal Resistance *1	$R_{th(j-c)}$	Junction to Case	0.35	$^\circ\text{C/W}$
	$R_{th(c-f)}$	Base Plate to Heat Sink with Thermal Compound	0.2	

\*1: Value Per 1Arm

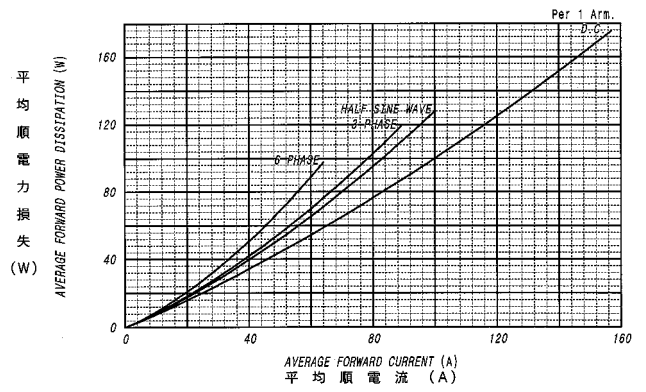
PC/PD10012 OUTLINE DRAWING (Dimensions in mm)



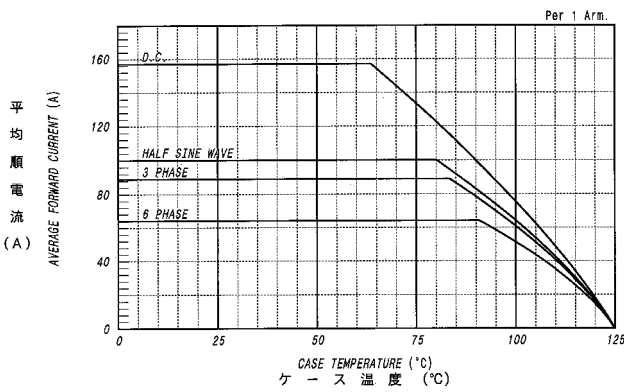
順電圧特性  
FORWARD CURRENT VS. VOLTAGE



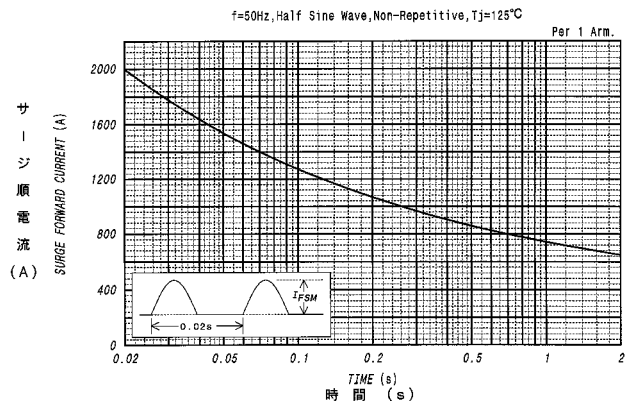
平均順電力損失特性  
AVERAGE FORWARD POWER DISSIPATION



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



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

