

DIODE MODULE 100A/1200 to 1600V

PC10012 PC10016
PD10012 PD10016

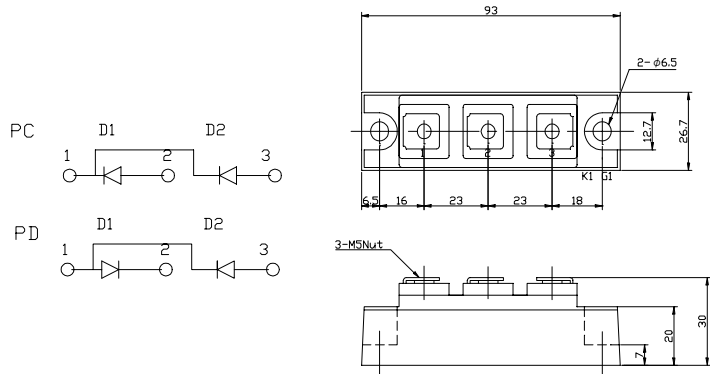
FEATURES

- * 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	

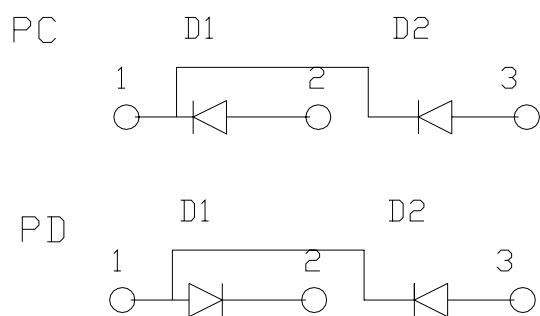
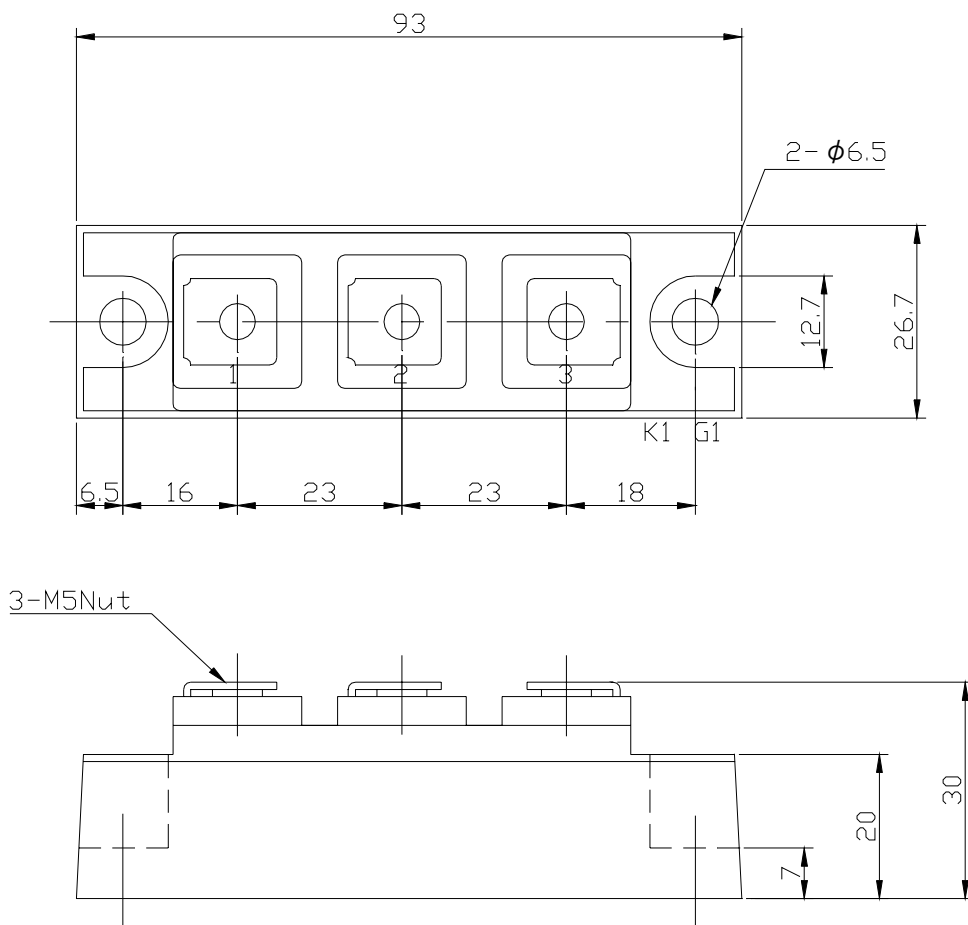
Parameter			Conditions	Max Rated Value	Unit
Average Rectified Output Current *1		I _{O(AV)}	50Hz Half Sine Wave condition T _c =80°C	100	A
RMS Forward Current *1		I _{F(RMS)}		156	A
Surge Forward Current *1		I _{FSM}	50 Hz Half Sine Wave,1Pulse Non-repetitive	2000	A
I Squared t *1		I ² t	2msec to 10msec	20000	A ² s
Operating JunctionTemperature Range		T _{jw}		-40 to +150	°C
Storage Temperature Range		T _{stg}		-40 to +125	°C
Isoration Voltage		Viso	Base Plate to Terminals, AC1min	2500	V
Mounting torque	Case mounting	F _{tor}	M6 Screw	2.4 to 3.5	N.m
	Terminals		M5 Screw	2.4 to 2.8	

Electrical • Thermal Characteristics

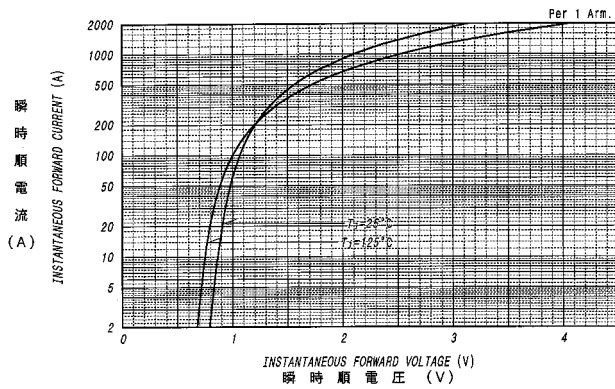
Characteristics	Symbol	Test Conditions	Max.	Unit
Peak Reverse Current *1	I_{RM}	$V_{RM}= V_{RRM}$, $T_j= 125^{\circ}C$	20	mA
Peak Forward Voltage *1	V_{FM}	$I_{FM}= 320A$, $T_j=25^{\circ}C$	1.35	V
Thermal Resistance *1	$R_{th(j-c)}$	Junction to Case	0.35	$^{\circ}C/W$
	$R_{th(c-f)}$	Base Plate to Heat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

*1: Value Per 1Arm

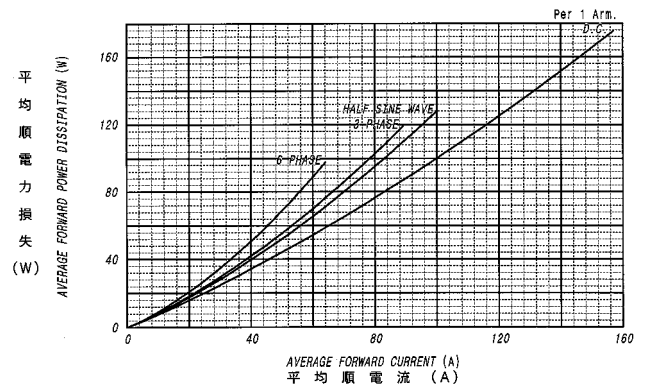
PC/PD10012 OUTLINE DRAWING (Dimensions in mm)



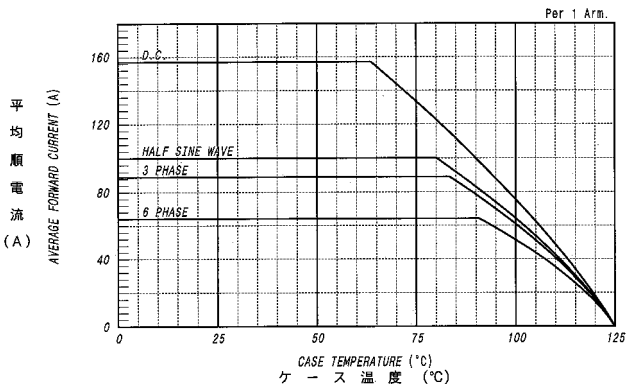
順電圧特性
FORWARD CURRENT VS. VOLTAGE



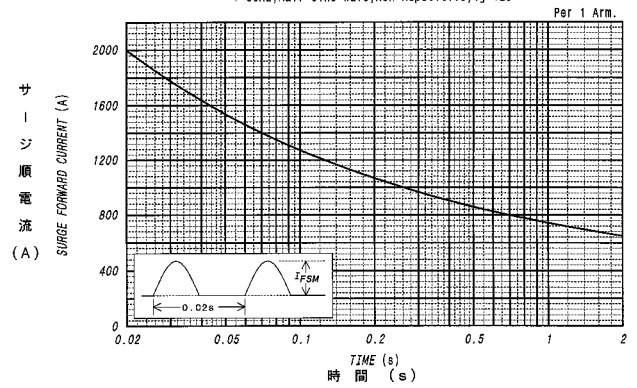
平均順電力損失特性
AVERAGE FORWARD POWER DISSIPATION



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
 $f=50\text{Hz}$, Half Sine Wave, Non-Repetitive, $T_j=125^\circ\text{C}$



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

