

DIODE MODULE 100A/1200 to 1600V

PC10012 PC10016
PD10012 PD10016

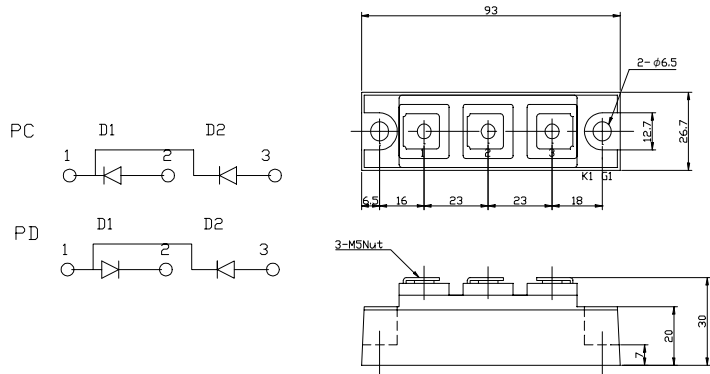
FEATURES

- * 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	

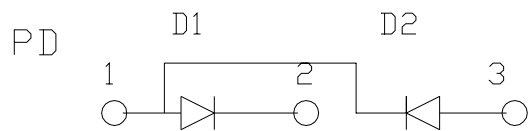
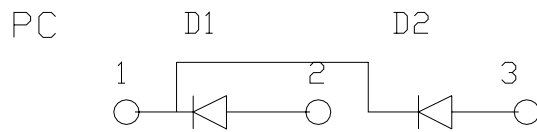
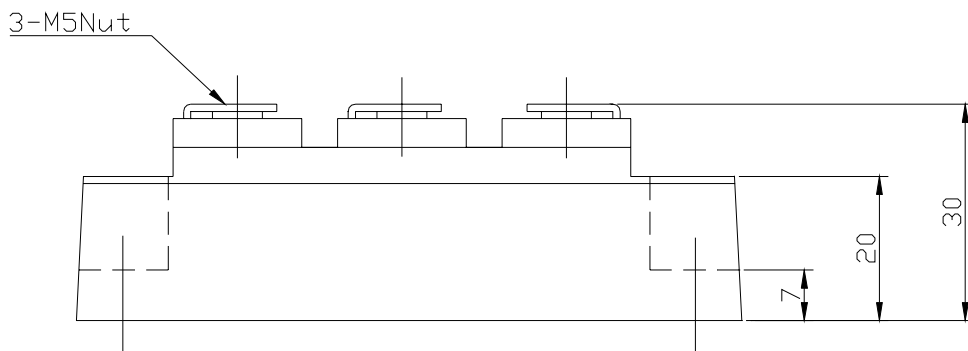
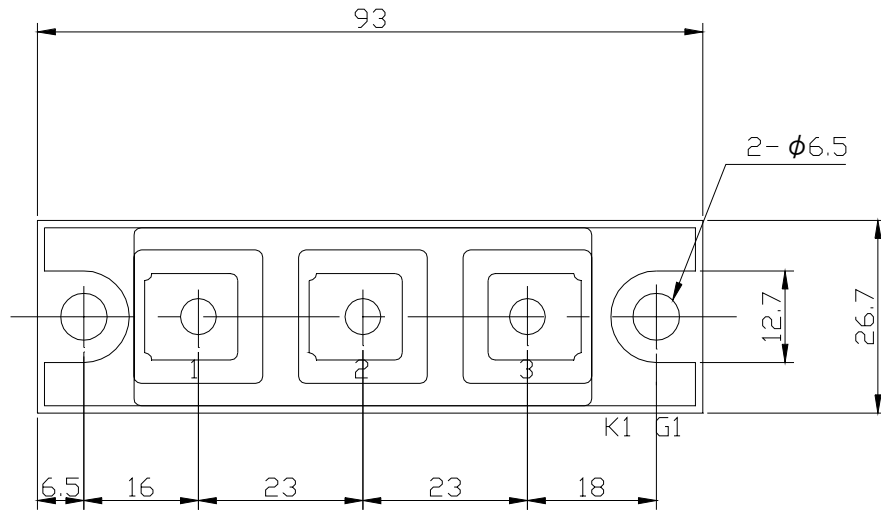
Parameter		Conditions	Max Rated Value	Unit
Average Rectified Output Current *1	$I_{O(AV)}$	50Hz Half Sine Wave condition $T_c=80^\circ\text{C}$	100	A
RMS Forward Current *1	$I_{F(RMS)}$		156	A
Surge Forward Current *1	I_{FSM}	50 Hz Half Sine Wave, 1Pulse Non-repetitive	2000	A
I Squared t *1	I^2t	2msec to 10msec	20000	A^2s
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

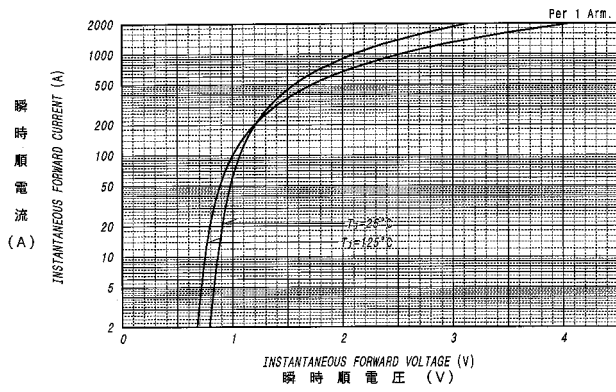
Characteristics	Symbol	Test Conditions	Max.	Unit
Peak Reverse Current *1	I_{RM}	$V_{RM}= V_{RRM}$, $T_j= 125^\circ\text{C}$	20	mA
Peak Forward Voltage *1	V_{FM}	$I_{FM}= 320\text{A}$, $T_j=25^\circ\text{C}$	1.35	V
Thermal Resistance *1	$R_{th(j-c)}$	Junction to Case	0.35	$^\circ\text{C/W}$
	$R_{th(c-f)}$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

*1: Value Per 1Arm

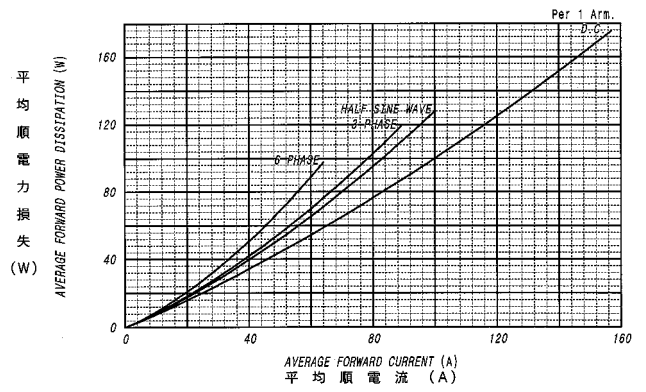
PC/PD10012 OUTLINE DRAWING (Dimensions in mm)



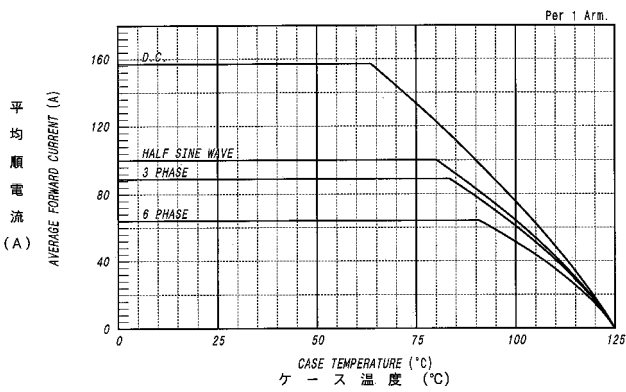
順電圧特性
FORWARD CURRENT VS. VOLTAGE



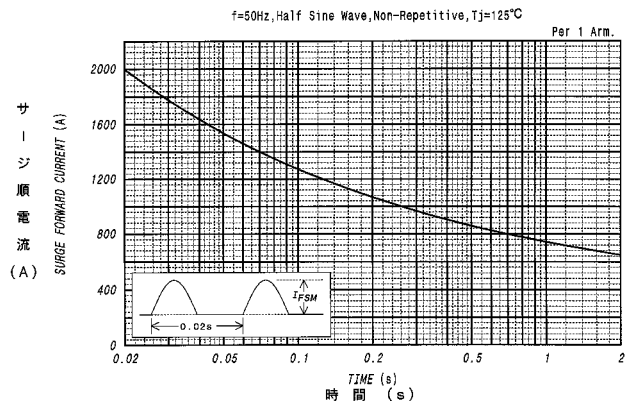
平均順電力損失特性
AVERAGE FORWARD POWER DISSIPATION



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

