

DIODE MODULE 60A/1200 to 1600V

PC6012 PC6016

PD6012 IPD6016

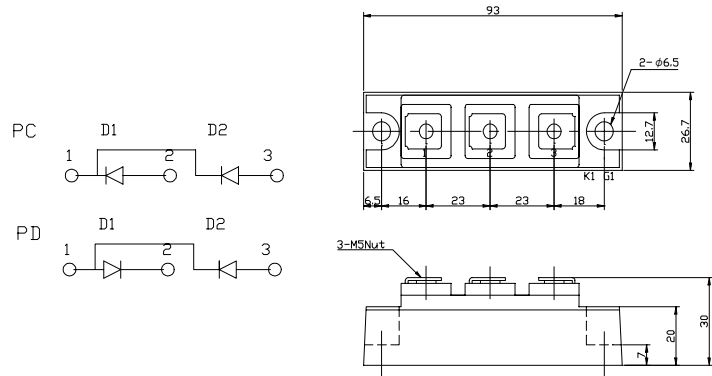
FEATURES

- * 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
		PC6012 / PD 6012	PC6016 / PD 6016	
Repetitive Peak Reverse Voltage *1	V_{RRM}	1200	1600	V
Non Repetitive Peak Reverse Voltage *1	V_{RSM}	1300	1700	

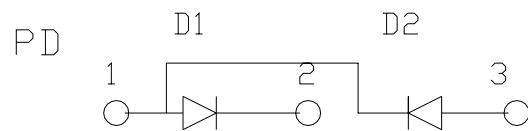
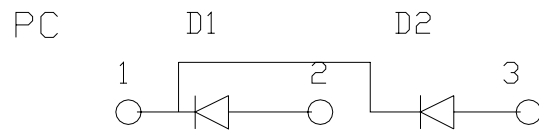
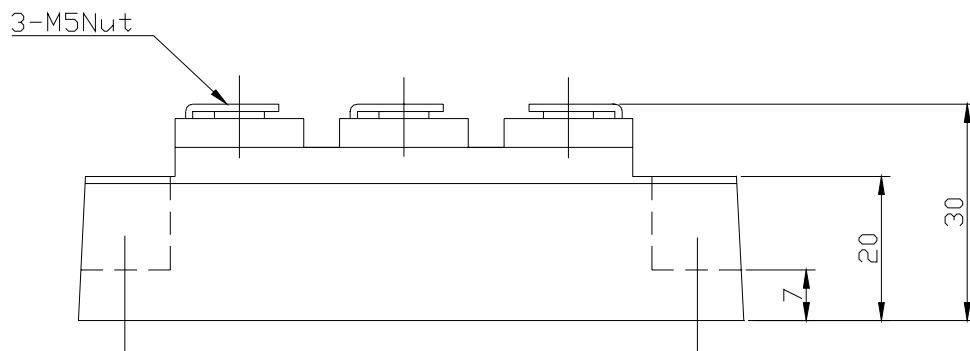
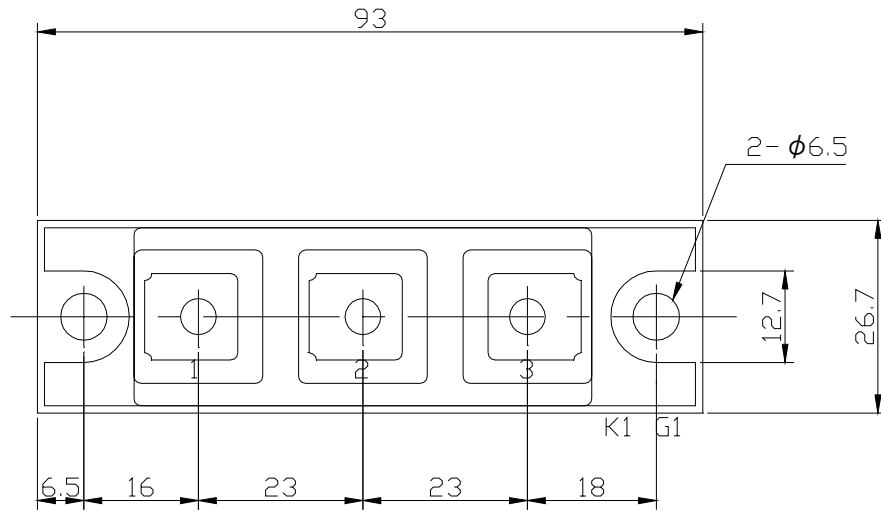
Parameter	Symbol	Conditions	Max Rated Value	Unit
Average Rectified Output Current *1	$I_{O(AV)}$	50Hz Half Sine Wave condition $T_c=87^\circ\text{C}$	60 A	
RMS Forward Current *1	$I_{F(RMS)}$		94	A
Surge Forward Current *1	I_{FSM}	50 Hz Half Sine Wave, 1Pulse Non-repetitive	1200 A	
I^2t *1	I^2t	2msec to 10msec	7200	A^2s
Operating Junction Temperature Range	T_{jw}		-40 to +125	$^\circ\text{C}$
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

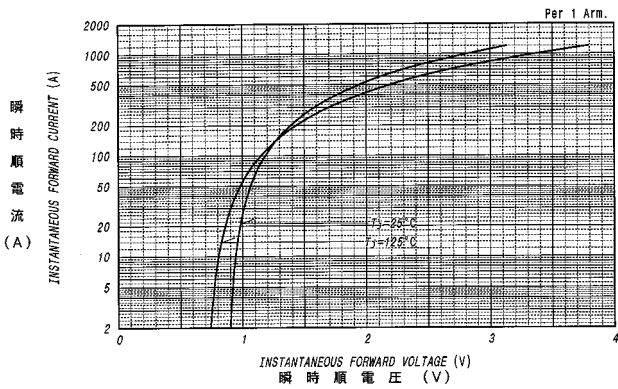
Characteristics	Symbol	Test Conditions	Max.	Unit
Peak Reverse Current *1	I_{RM}	$V_{RM}= V_{RRM}, T_j= 125^\circ\text{C}$	15	mA
Peak Forward Voltage *1	V_{FM}	$I_{FM}= 180\text{A}, T_j=25^\circ\text{C}$	1.35	V
Thermal Resistance *1	$R_{th(j-c)}$	Junction to Case	0.5	$^\circ\text{C/W}$
	$R_{th(c-f)}$	Base Plate to Heat Sink with Thermal Compound	0.2	

*1: Value Per 1A rm

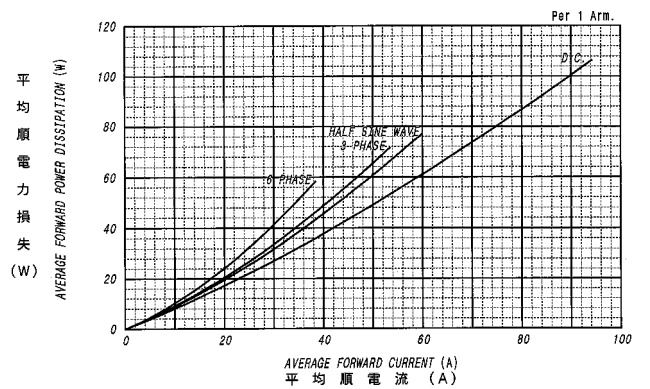
PC/PD6012 OUTLINE DRAWING (Dimensions in mm)



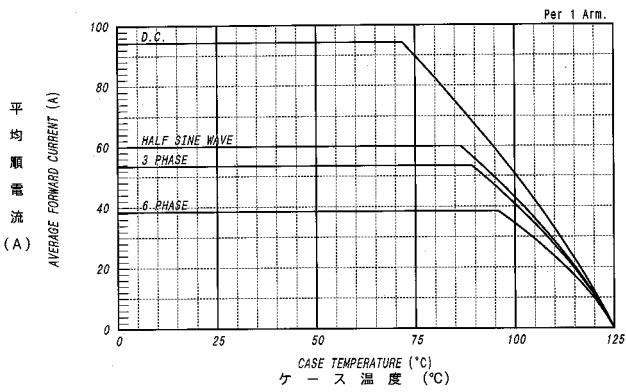
順電圧特性
FORWARD CURRENT VS. VOLTAGE



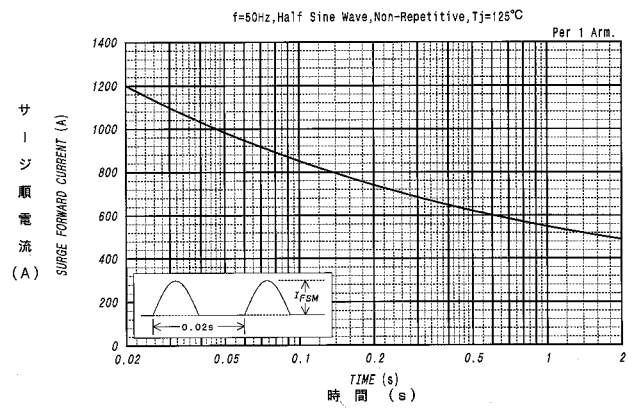
平均順電力損失特性
AVERAGE FORWARD POWER DISSIPATION



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

