

# DIODE MODULE 50A/1200V/1600V

## PT5112 PT5116

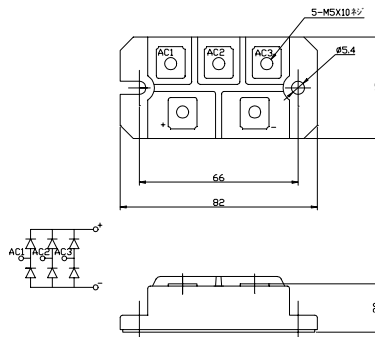
### FEATURES

- \* Isolated Base
- \* 3 Phase Bridge Circuit
- \* High Surge Capability
- \* UL Recognized, File No. E187184

### TYPICAL APPLICATIONS

- \* Rectified For General Use

### OUTLINE DRAWING



### Maximum Ratings

Approx Net Weight:180g

Parameter	Symbol	Type / Grade		Unit
		PT5112	PT5116	
Repetitive Peak Reverse Voltage *1	$V_{RRM}$	1200	1600	V
Non Repetitive Peak Reverse Voltage *1	$V_{RSM}$	1300	1700	

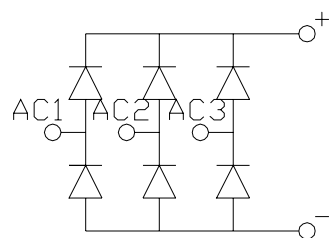
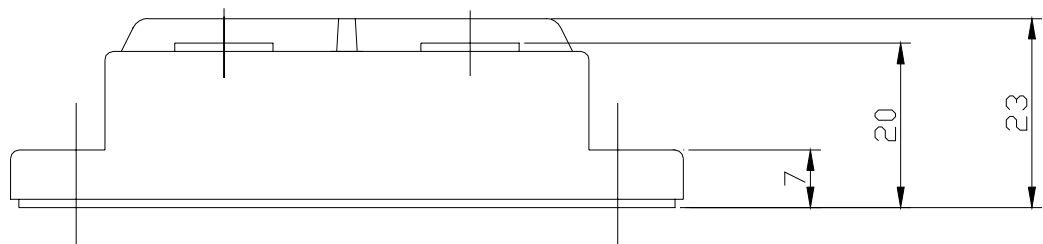
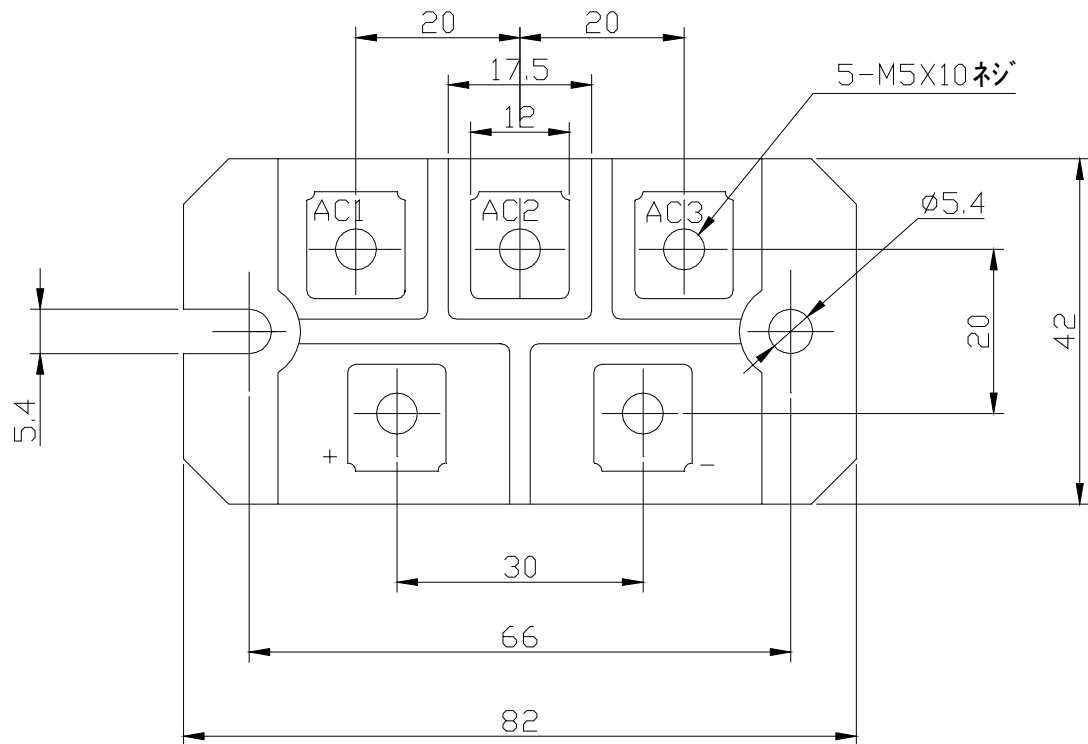
Parameter			Conditions		Max Rated Value	Unit
Average Rectified Output Current		I <sub>O(AV)</sub>	3-Phase Full Wave Rectified T <sub>c</sub> =91°C		50	A
Surge Forward Current *1		I <sub>FSM</sub>	50 Hz Half Sine Wave,1Pulse Non-repetitive		600	A
I Squared t *1		I <sup>2</sup> t	2msec to 10msec		1800	A <sup>2</sup> s
Operating JunctionTemperature Range		T <sub>jw</sub>			-40 to +125	°C
Storage Temperature Range		T <sub>stg</sub>			-40 to +125	°C
Isoration Voltage		Viso	Base Plate to Terminals, AC1min		2500	V
Mounting torque	Case mounting	F <sub>tor</sub>	Greased	M5 Screw	2.4 to 2.8	N.m
	Terminals		M5		2.4 to 2.8	

### Electrical • Thermal Characteristics

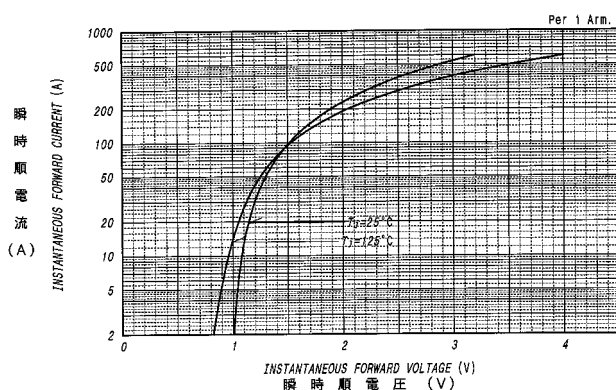
Characteristics	Symbol	Test Conditions	Max.	Unit
Peak Reverse Current *1	$I_{RM}$	$V_{RM}= V_{RRM}$ , $T_j= 125^{\circ}\text{C}$	10	mA
Peak Forward Voltage *1	$V_{FM}$	$I_{FM}= 50\text{A}$ , $T_j=25^{\circ}\text{C}$	1.3	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case (Total)	0.27	$^{\circ}\text{C/W}$
	$R_{th(c-f)}$	Base Plate to Heat Sink with Thermal Compound (Total)	0.06	

\*1: Value Per 1Arm

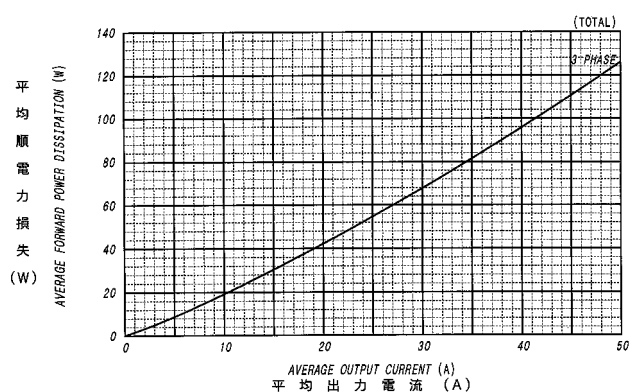
PT511x OUTLINE DRAWING (Dimensions in mm)



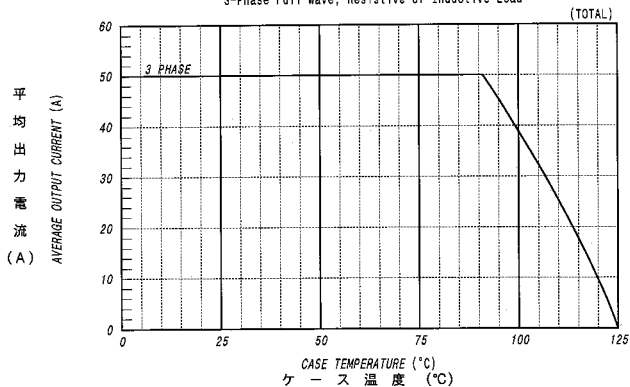
順電圧特性  
FORWARD CURRENT VS. VOLTAGE



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



平均出力電流 - ケース温度定格  
AVERAGE OUTPUT CURRENT VS. CASE TEMPERATURE  
3-Phase Full Wave, Resistive or Inductive Load



サージ順電流定格  
SURGE CURRENT RATINGS  
f=50Hz, Half Sine Wave, Non-Repetitive,  $T_j = 125^\circ\text{C}$

