

DIODE MODULE 50A/1200V/1600V

PT5112 PT5116

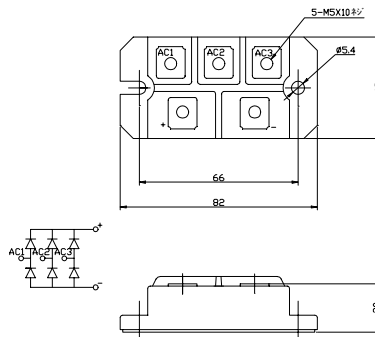
FEATURES

- * 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	

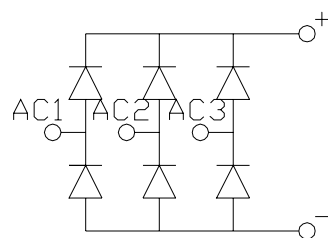
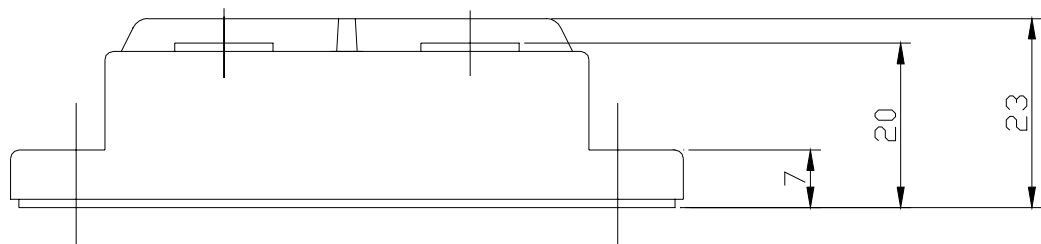
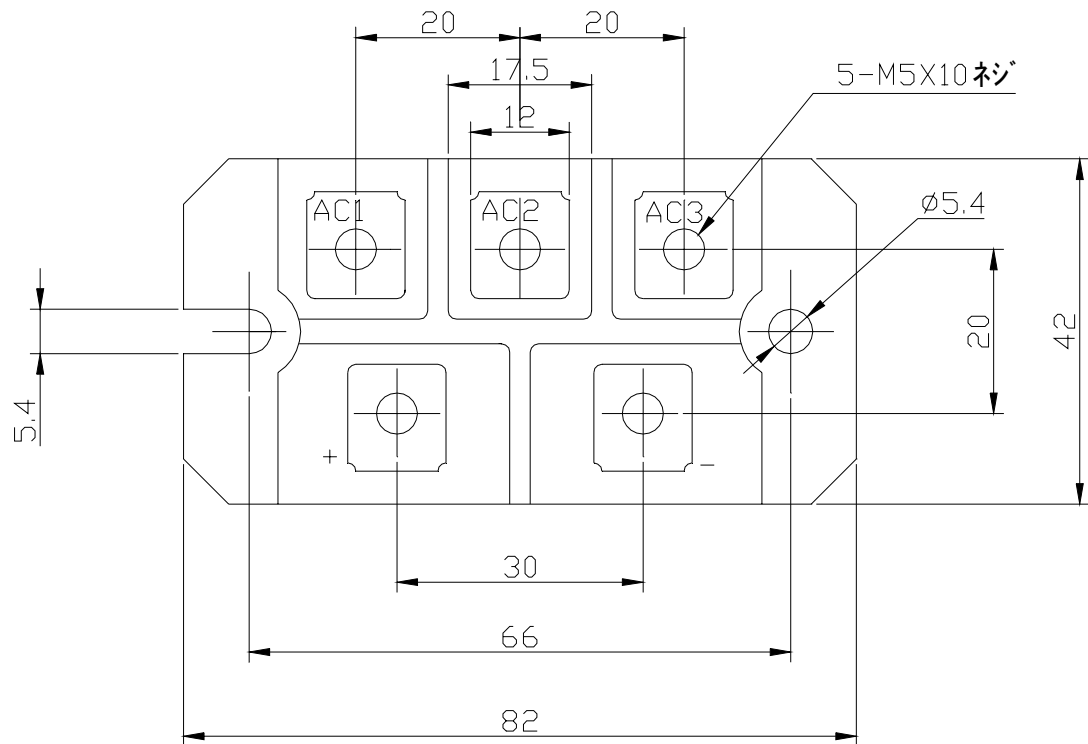
Parameter		Conditions	Max Rated Value	Unit
Average Rectified Output Current	$I_{O(AV)}$	3-Phase Full Wave Rectified $T_c=91^{\circ}\text{C}$	50	A
Surge Forward Current *1	I_{FSM}	50 Hz Half Sine Wave, 1 Pulse Non-repetitive	600	A
I Squared t *1	I^2t	2msec to 10msec	1800	A^2s
Operating Junction Temperature Range	T_{jw}		-40 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}		-40 to +125	$^{\circ}\text{C}$
Isolation Voltage	Viso	Base Plate to Terminals, AC1min	2500	V
Mounting torque	Case mounting	Greased	2.4 to 2.8	N.m
	Terminals	M5 Screw		
		M5	2.4 to 2.8	

Electrical • Thermal Characteristics

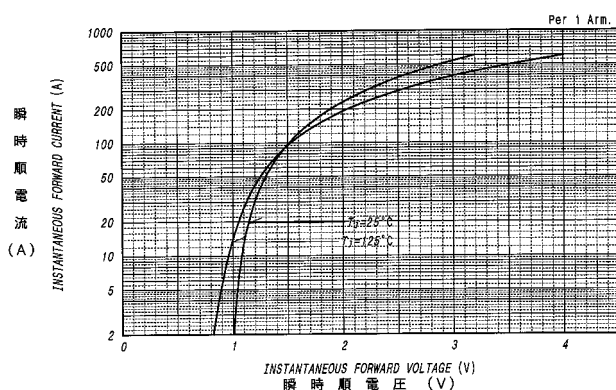
Characteristics	Symbol	Test Conditions	Max.	Unit
Peak Reverse Current *1	I_{RM}	$V_{RM}= V_{RRM}$, $T_j= 125^{\circ}\text{C}$	10	mA
Peak Forward Voltage *1	V_{FM}	$I_{FM}= 50\text{A}$, $T_j=25^{\circ}\text{C}$	1.3	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case (Total)	0.27	$^{\circ}\text{C/W}$
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

*1: Value Per 1Arm

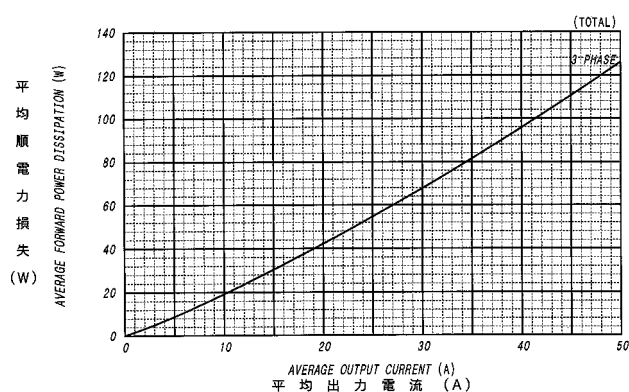
PT511x OUTLINE DRAWING (Dimensions in mm)



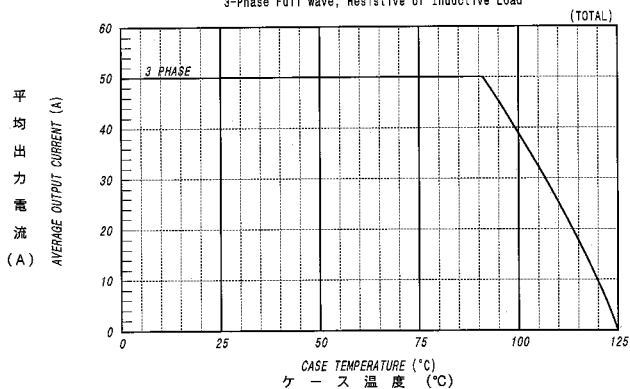
順電圧特性
FORWARD CURRENT VS. VOLTAGE



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, $T_j = 125^\circ\text{C}$

