

# DIODE MODULE 200A/800V

# PD2018

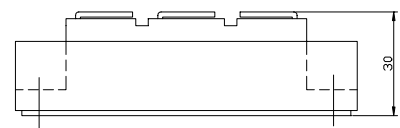
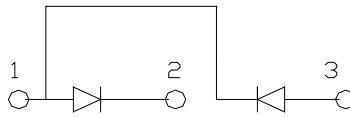
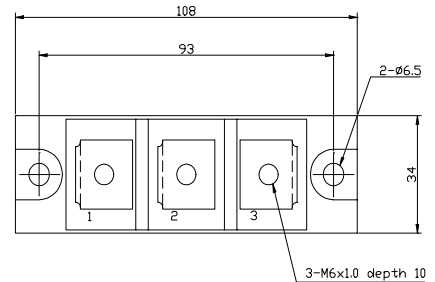
## OUTLINE DRAWING

### FEATURES

- \* 108mm Short Size Case
- \* Isolated Base
- \* Dual Diodes Cascaded Circuit
- \* High Surge Capability

### TYPICAL APPLICATIONS

- \* Rectified For General Use



### Maximum Ratings

Approx Net Weight:280g

Parameter	Symbol	Type / Grade	Unit
		PD2018	
Repetitive Peak Reverse Voltage *1	$V_{RRM}$	800	V
Non Repetitive Peak Reverse Voltage *1	$V_{RSM}$	900	

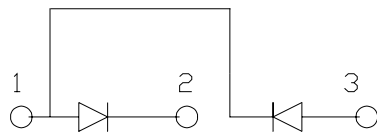
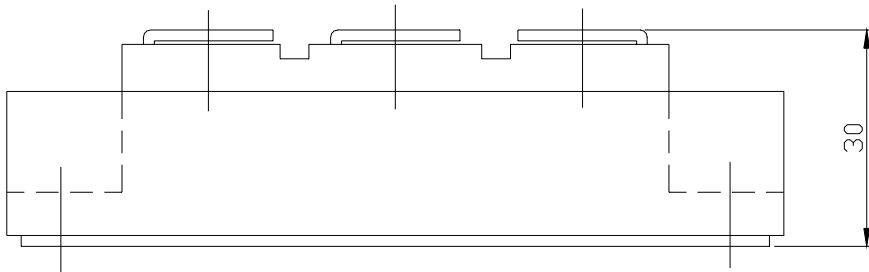
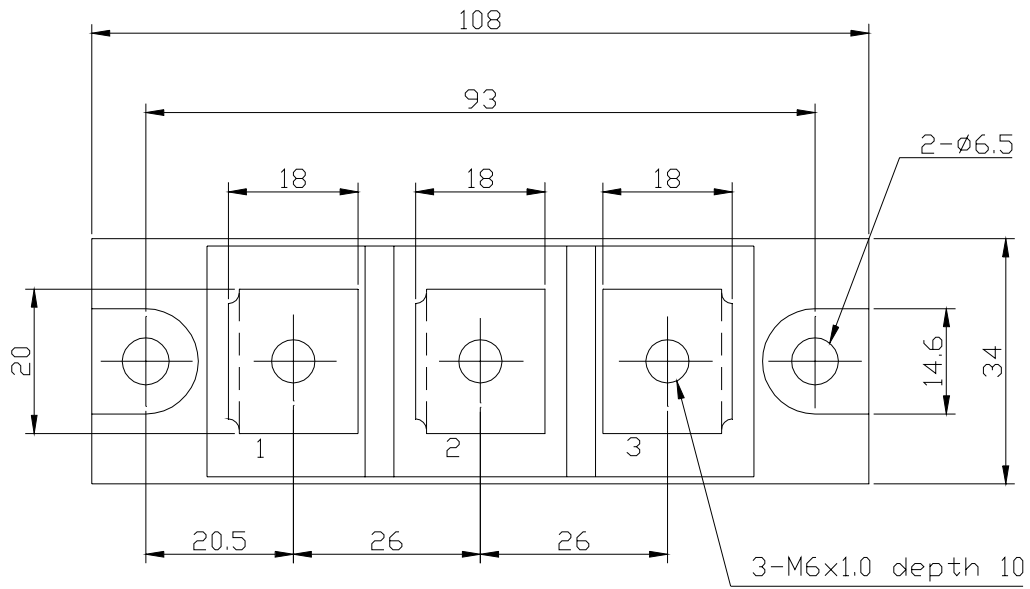
Parameter	Symbol	Conditions	Max Rated Value	Unit
Average Rectified Output Current *1	$I_{O(AV)}$	50 Hz Half Sine Wave condition $T_c=94^\circ\text{C}$	200	A
RMS Forward Current *1	$I_{F(RMS)}$		314	A
Surge Forward Current *1	$I_{FSM}$	50 Hz Half Sine Wave, 1cycle, Non-Repetitive	4000	A
I Squared t *1	$I^2t$	2msec to 10msec	80000	$\text{A}^2\text{s}$
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	$F_{tor}$	M6 Screw	N.m
	Terminals		M6 Screw	

### Electrical • Thermal Characteristics

Characteristics	Symbol	Test Conditions	Max.	Unit
Peak Reverse Current *1	$I_{RM}$	$V_{RM}= V_{RRM}, T_j= 150^\circ\text{C}$	30	mA
Peak Forward Voltage *1	$V_{FM}$	$I_{FM}= 600\text{A}, T_j=25^\circ\text{C}$	1.24	V
Thermal Resistance *1	$R_{th(j-c)}$	Junction to Case	0.23	$^\circ\text{C/W}$
	$R_{th(c-f)}$	Case to Fin, Greased	0.15	

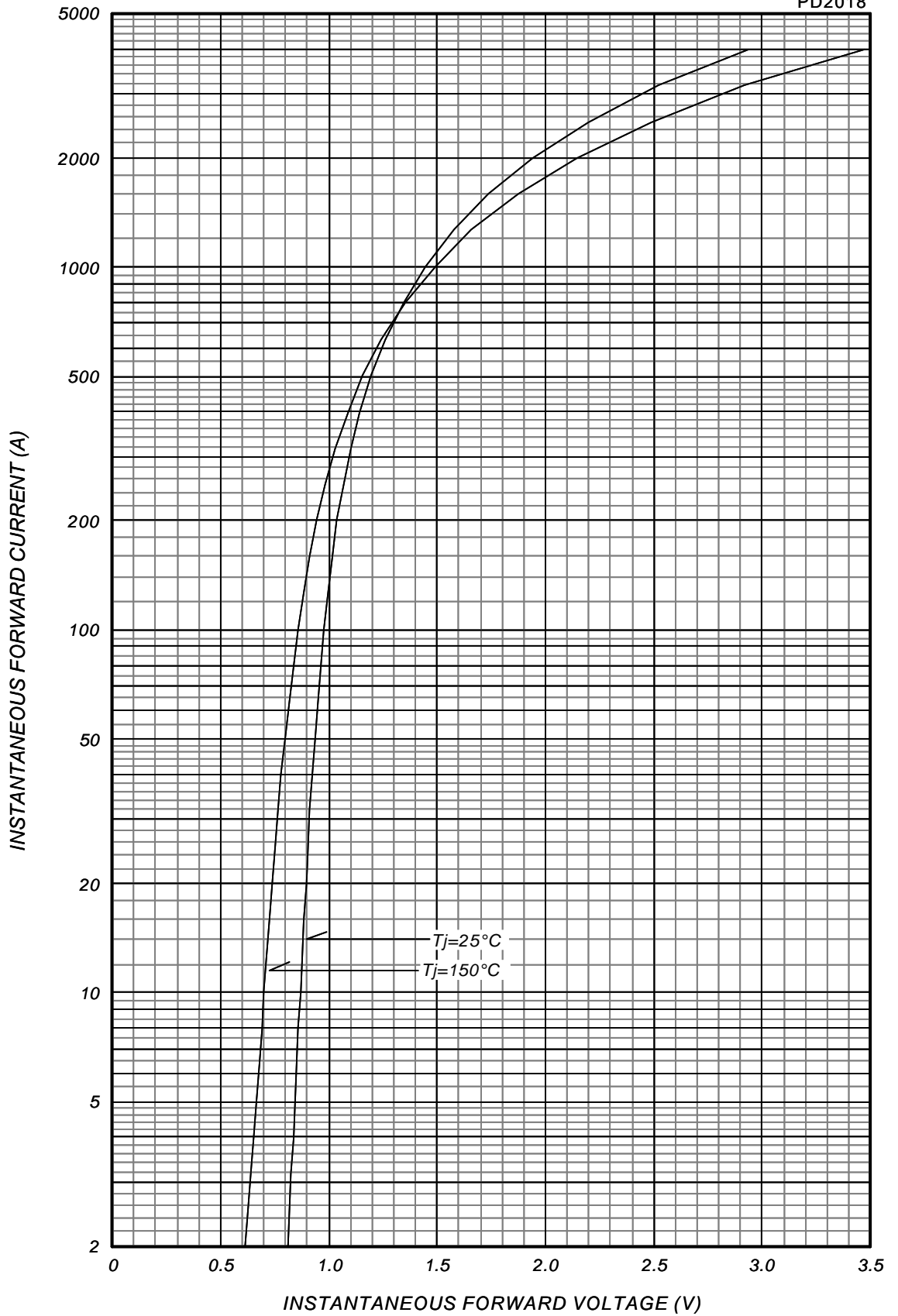
\*1: Value Per 1Arm

PD2018 OUTLINE DRAWING (Dimensions in mm)

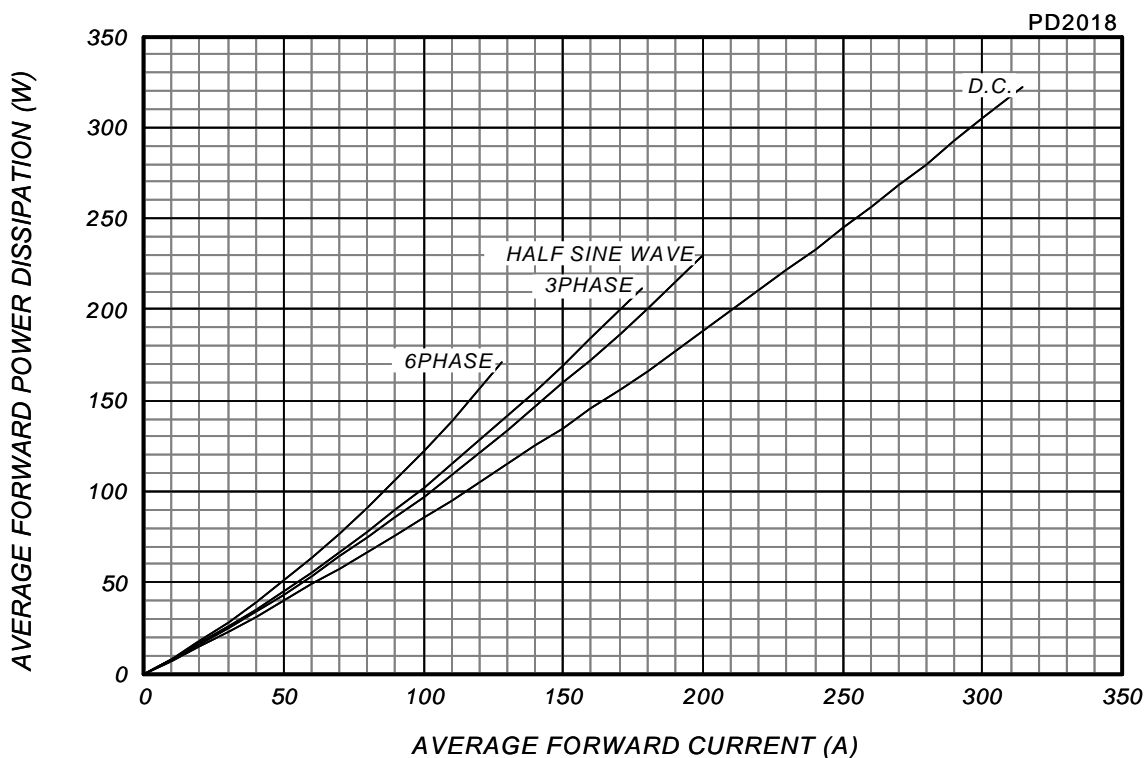


FORWARD CURRENT VS. VOLTAGE

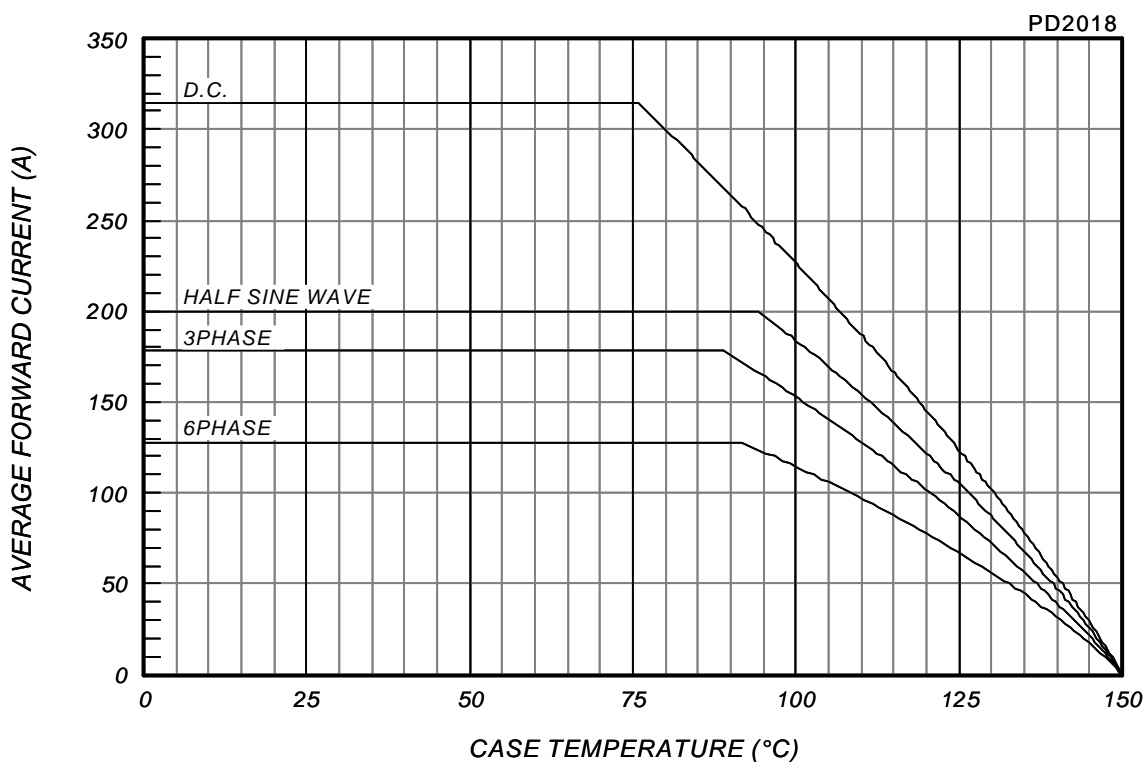
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### AVERAGE FORWARD POWER DISSIPATION



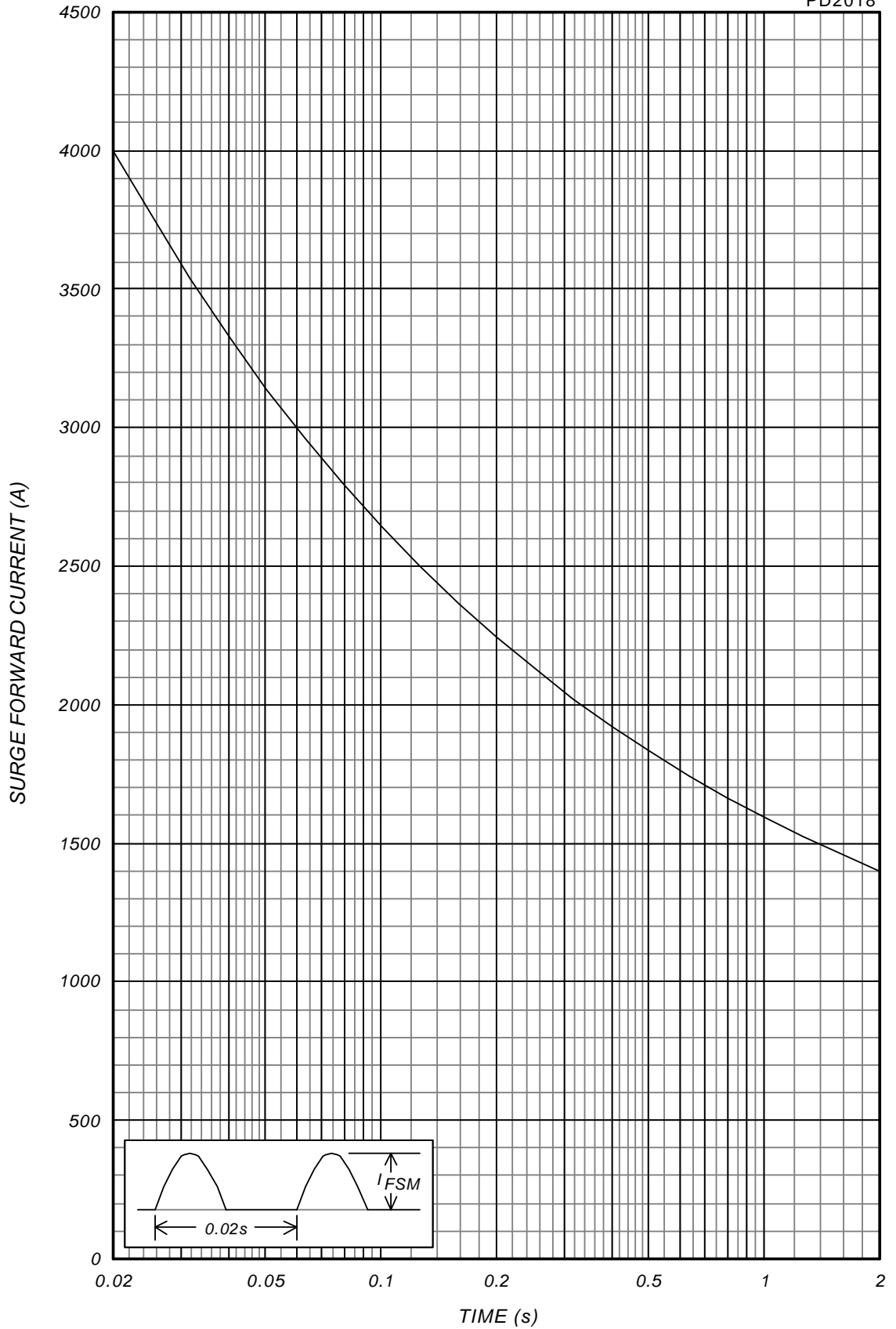
### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



# SURGE CURRENT RATINGS

f=50Hz, Half Sine Wave, Non-Repetitive, Tj=150

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*MAXIMUM TRANSIENT THERMAL IMPEDANCE*

Junction to Case

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