

DIODE MODULE 150A/800V

PD1518

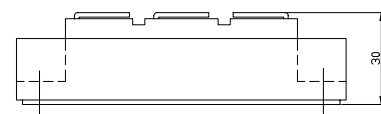
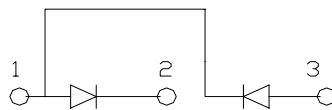
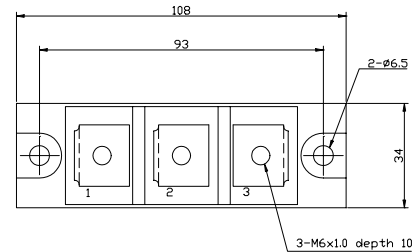
OUTLINE DRAWING

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 |
|--|-----------|--------------|------|
| | | PD1518 | |
| Repetitive Peak Reverse Voltage *1 | V_{RRM} | 800 | V |
| Non Repetitive Peak Reverse Voltage *1 | V_{RSM} | 900 | |

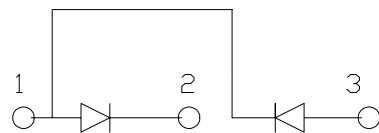
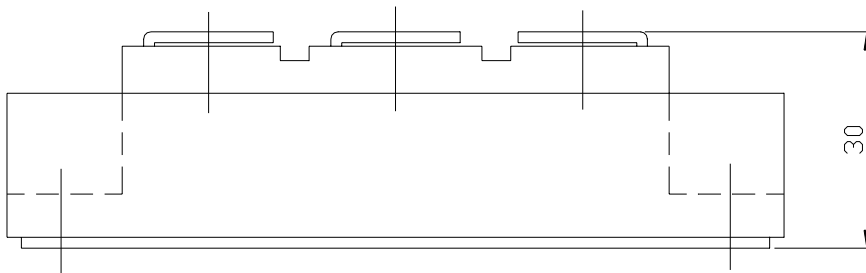
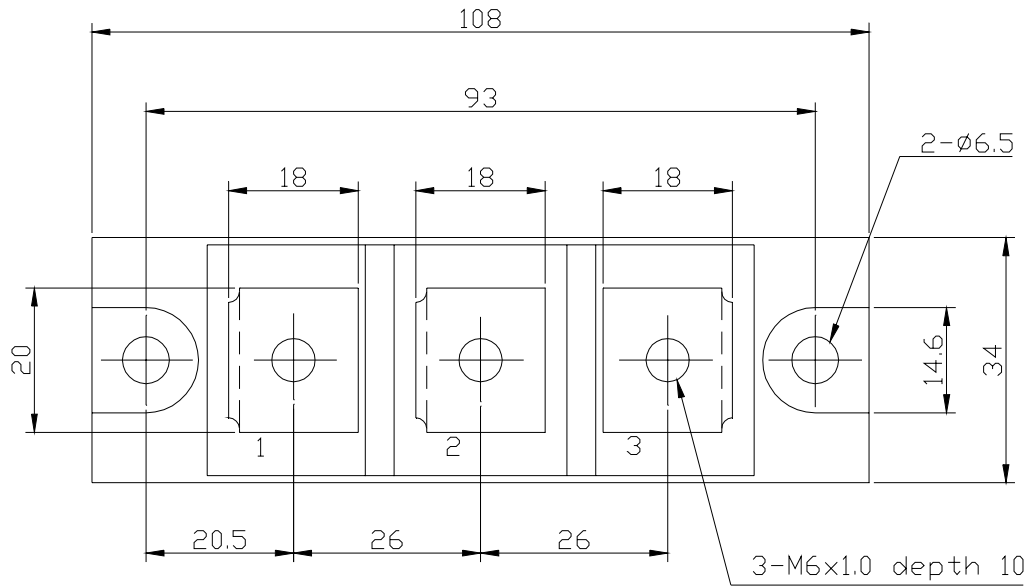
| Parameter | Symbol | Conditions | Max Rated Value | Unit |
|--------------------------------------|---------------|---|-----------------|----------------------|
| Average Rectified Output Current *1 | $I_{O(AV)}$ | 50 Hz Half Sine Wave condition $T_c=103^{\circ}\text{C}$ | 150 | A |
| RMS Forward Current *1 | $I_{F(RMS)}$ | | 235 | A |
| Surge Forward Current *1 | I_{FSM} | 50 Hz Half Sine Wave, 1cycle, Non-Repetitive | 3200 | A |
| I Squared t *1 | I^2t | 2msec to 10msec | 51200 | 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 | Viso | Base Plate to Terminals, AC1min | 2500 | V |
| Mounting Torque | Case Mounting | Ftor | M6 Screw | N.m |
| | Terminals | | M6 Screw | |

Electrical • Thermal Characteristics

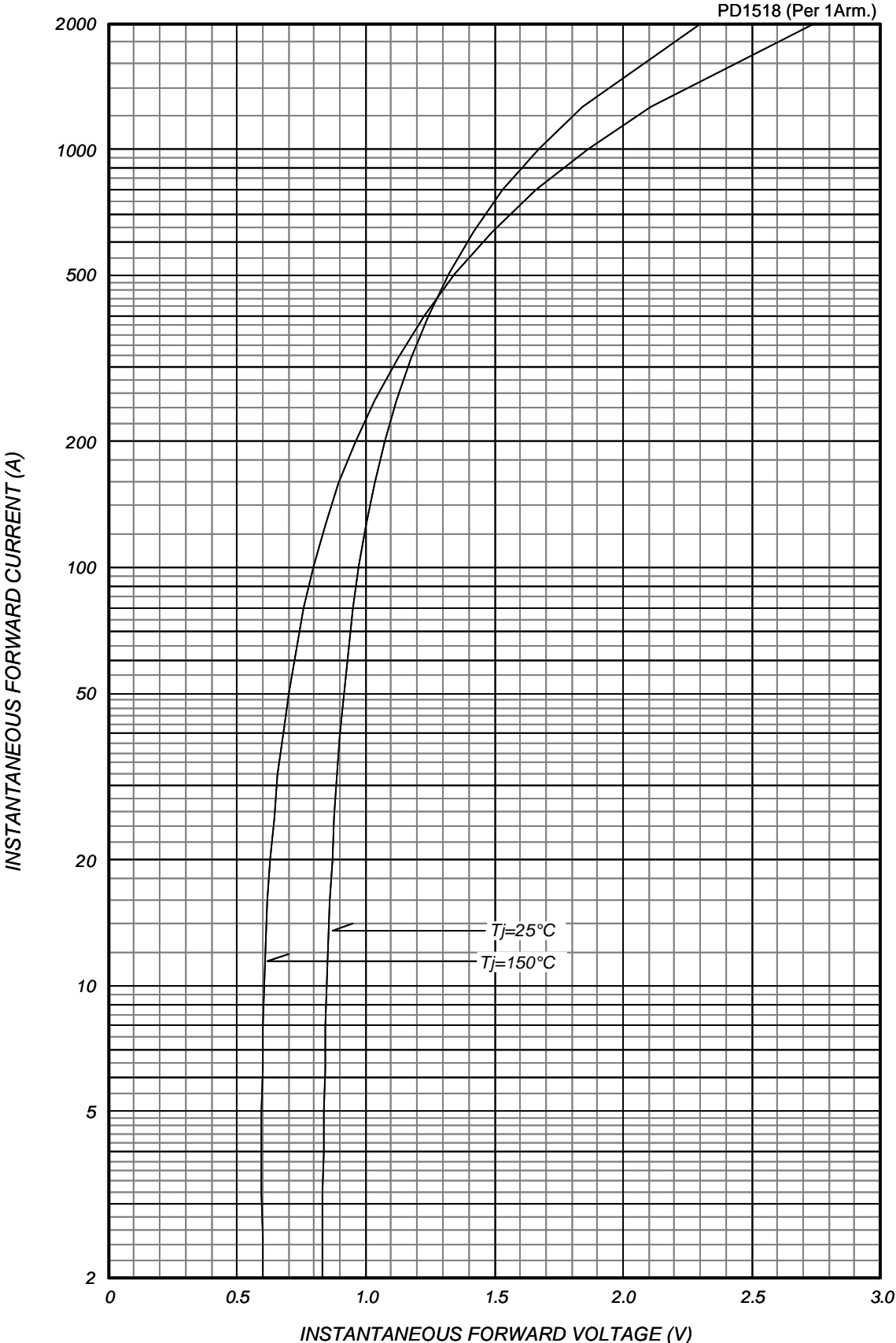
| Characteristics | Symbol | Test Conditions | Max. | Unit |
|-------------------------|---------------|---|------|-----------------------------|
| Peak Reverse Current *1 | I_{RM} | $V_{RM}= V_{RRM}, T_j= 150^{\circ}\text{C}$ | 15 | mA |
| Peak Forward Voltage *1 | V_{FM} | $I_{FM}= 450\text{A}, T_j=25^{\circ}\text{C}$ | 1.28 | V |
| Thermal Resistance *1 | $R_{th(j-c)}$ | Junction to Case | 0.25 | $^{\circ}\text{C}/\text{W}$ |
| | $R_{th(c-f)}$ | Case to Fin, Greased | 0.15 | |

*1: Value Per 1Arm

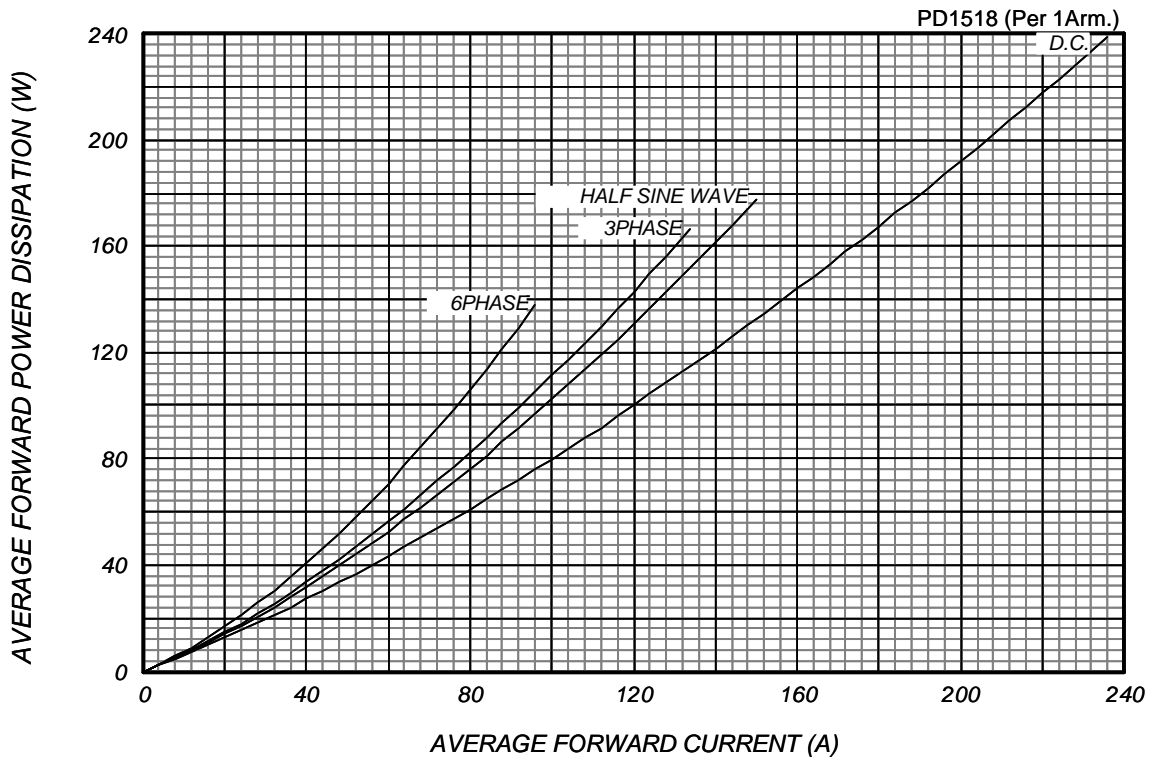
PD1518 OUTLINE DRAWING (Dimensions in mm)



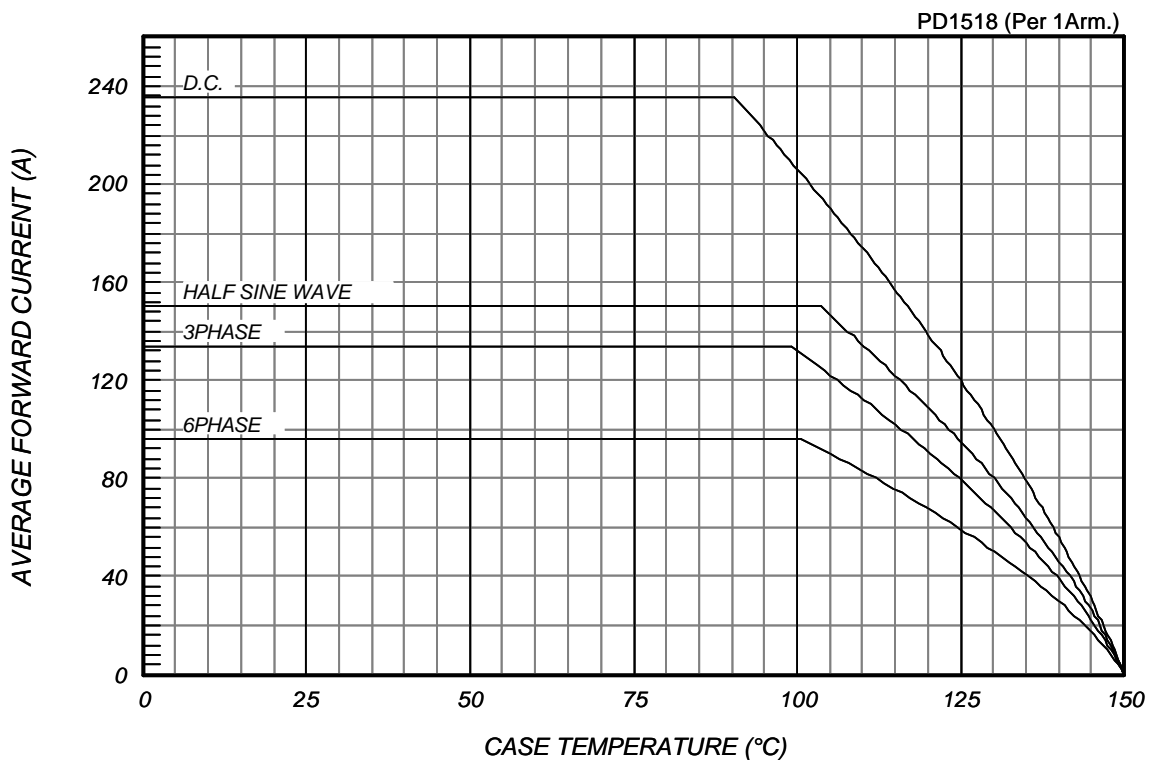
FORWARD CURRENT VS. VOLTAGE



AVERAGE FORWARD POWER DISSIPATION



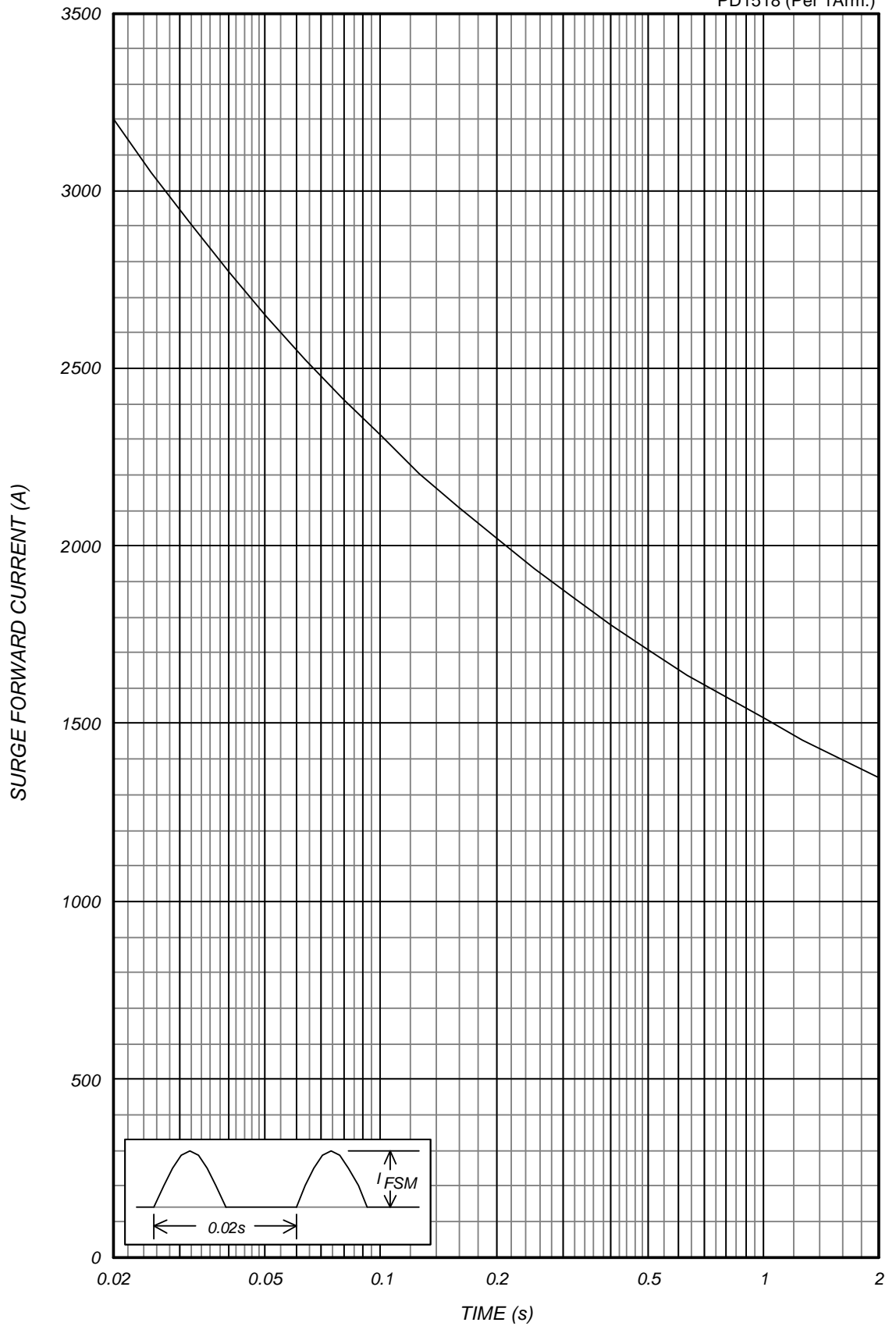
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



SURGE CURRENT RATINGS

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

PD1518 (Per 1Arm.)



MAXIMUM TRANSIENT THERMAL IMPEDANCE

Junction to Case

PD1518

