

**Single-Phase Glass Passivated Bridge Rectifiers**  
**Diode AO4803-AO4892**

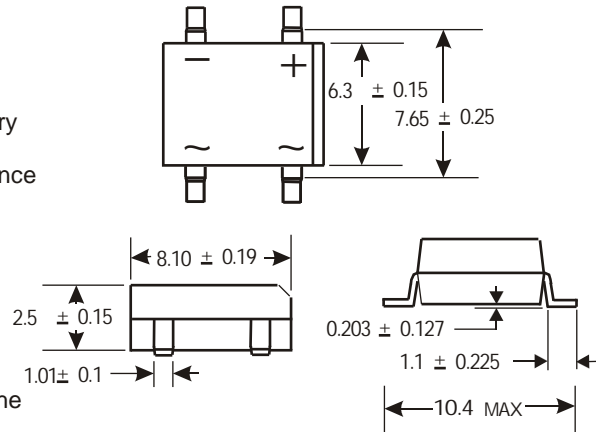
**VOLTAGE RANGE** 50 to 1000 Volts  
**CURRENT** 1.0 Amperes



**Features**

- Single In-Line terminals array suitable for P.C. board mounting
- Surge overload ratings to 300 amperes
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Integrally molded heat sinks provide low thermal resistance for maximum heat dissipation
- High temperature soldering guaranteed 265 °C/10 seconds at 5 lbs (2.3kg) tension

AO48



Dimensions in millimeters(1mm =0.0394")

**Mechanical Data**

Case: Molded plastic with heat sink integrally mounted in the bridge encapsulation  
 Terminals: Plated wire leads solderable per MIL-STD-202, Method 208  
 Mounting Position: Any  
 Weight: 0.04 ounce, 1.0 grams (approx)

**Maximum Ratings & Thermal Characteristics**

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
 For Capacitive load derate current by 20%.

Parameter	Symbol	AO4803	AO4818	AO4850	AO4852	AO4868	AO4888	AO4892	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TA=40°C	IF(AV)	1.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	50.0							A
Rating for fusing ( t<8.3ms)	I <sup>2</sup> t	10							A <sup>2</sup> sec
Typical thermal resistance per element (1)	ReJA	110							°C/W
Typical junction capacitance per element (2)	Cj	25.0							pF
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150							°C

**Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
 For Capacitive load derate by 20 %.

Parameter	Symbol	AO4803	AO4818	AO4850	AO4852	AO4868	AO4888	AO4892	Unit
Maximum instantaneous forward voltage drop per leg at 1.0A	VF	1.1							V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	IR	10 500							µA

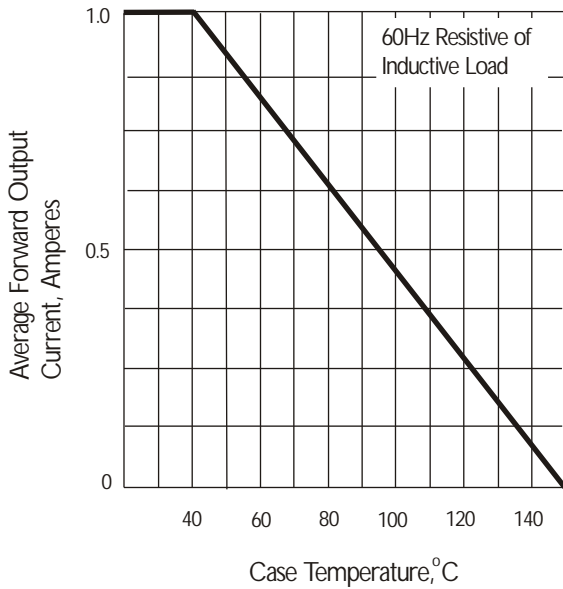
**Notes:** (1)Thermal resistance from Junction to Ambient on P.C.board mounting.  
 (2)Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

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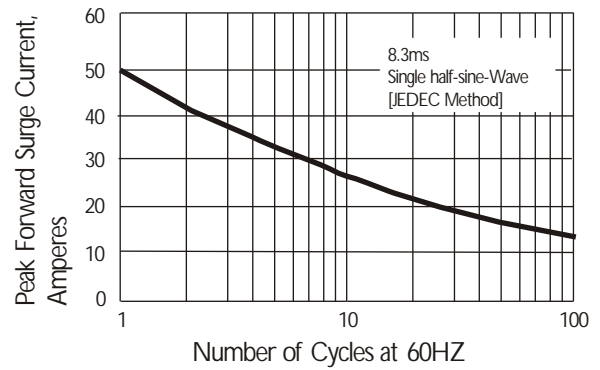
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**CURRENT** 1.0 Amperes

( TA = 25°C Unless otherwise noted )

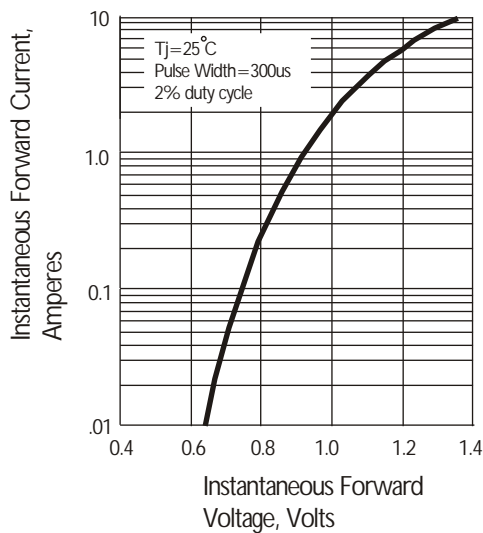
**Fig. 1 Derating Curve for Output Rectified Current**



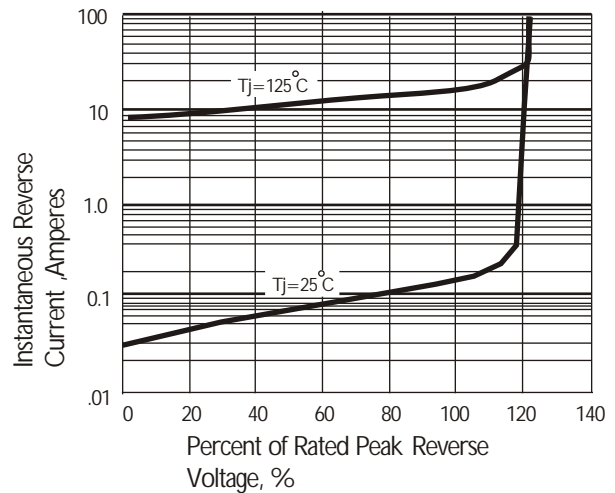
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Revers Characteristics**



**Fig. 5 Typical Junction Capacitance**

