



# ABS2005 thru ABS210

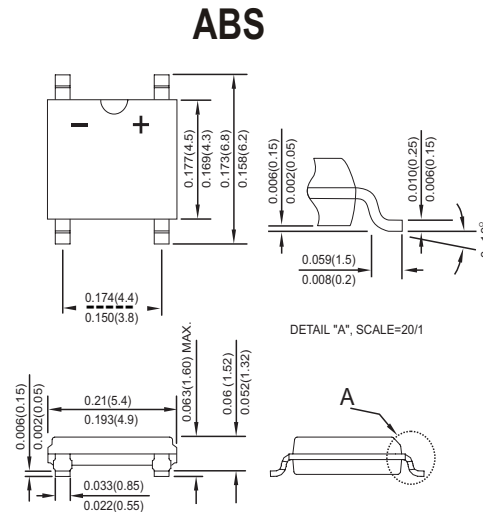
## 2.0 A Single-Phase Glass Passivated Bridge Rectifiers Rectifier Reverse Voltage 50 to 1000V

### Features

- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Ideal for printed circuit board application
- High temperature soldering guaranteed 260 °C /5 seconds at 5 lbs (2.3kg) tension

### Mechanical Data

Case: Molded plastic  
 Terminals: Plated leads solderable per MIL-STD-202, Method 208  
 Polarity: Marked on body  
 Mounting Position: Any



Dimensions in millimeters ( 1mm =0.0394" )

### 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	ABS 2005	ABS 201	ABS 202	ABS 204	ABS 206	ABS 208	ABS 210	unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at $T_C=100^\circ C$	$I_{F(AV)}$	2							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Rating for fusing ( $t < 8.3ms$ )	$I^2 t$	15							$A^2 sec$
Typical thermal resistance per element (1)	$R_{\theta JA}$	25							$^\circ C / W$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to + 150							$^\circ C$

### Electrical Characteristics

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

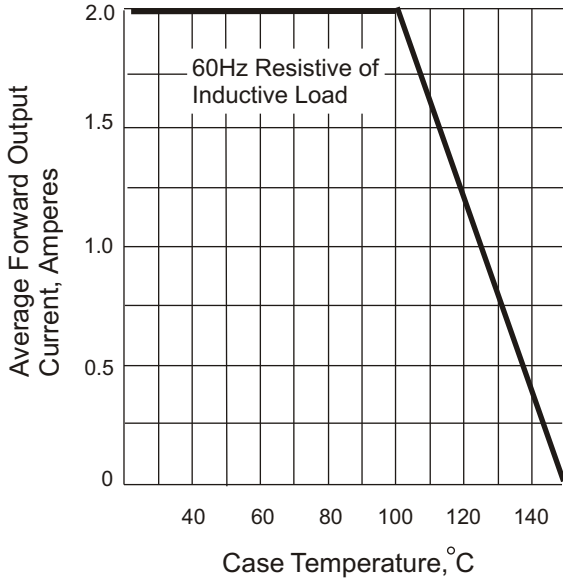
Parameter	Symbol	ABS 2005	ABS 201	ABS 202	ABS 204	ABS 206	ABS 208	ABS 210	Unit
Maximum instantaneous forward voltage drop per leg at 2A	$V_F$	1.1							V
Maximum DC reverse current at rated $T_A = 25^\circ C$ DC blocking voltage per element $T_A = 125^\circ C$	$I_R$	10 500							$\mu A$

**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.

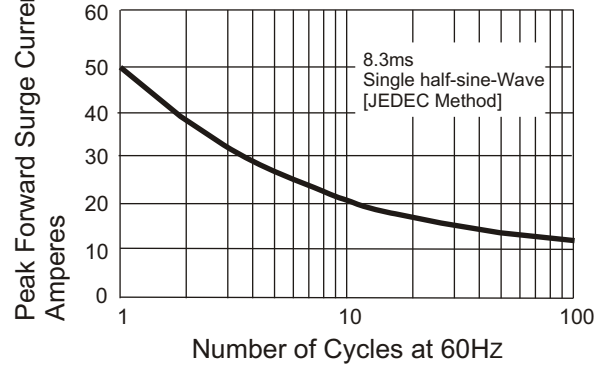
# Rating and Characteristic Curves ( $T_A=25^\circ\text{C}$ Unless otherwise noted )

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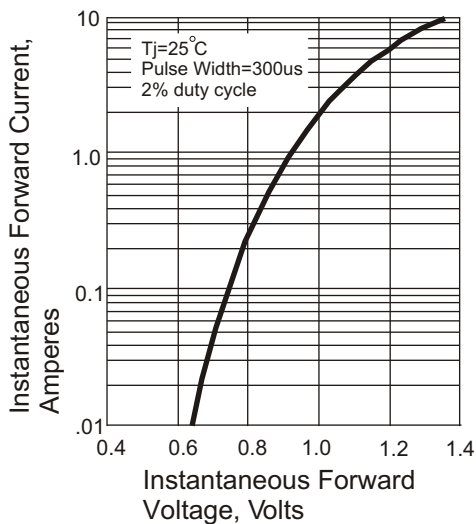
**Fig. 1 Derating Curve for Output Rectified Current**



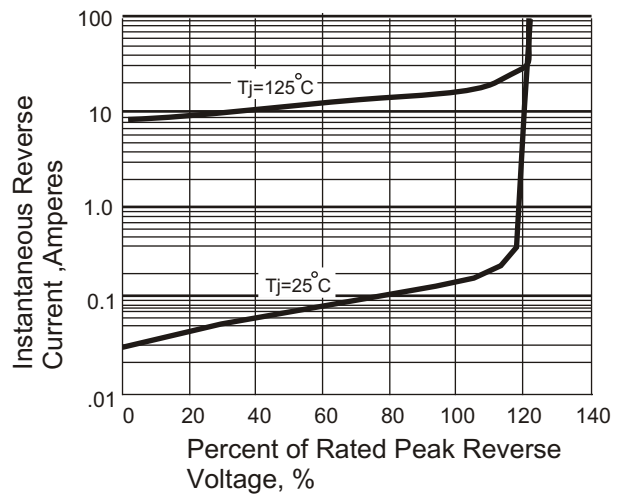
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Revers Characteristics**



**Fig. 5 Typical Junction Capacitance**

