



# ABS05 thru ABS10

## 0.8 A Single-Phase Glass Passivated Bridge Rectifiers

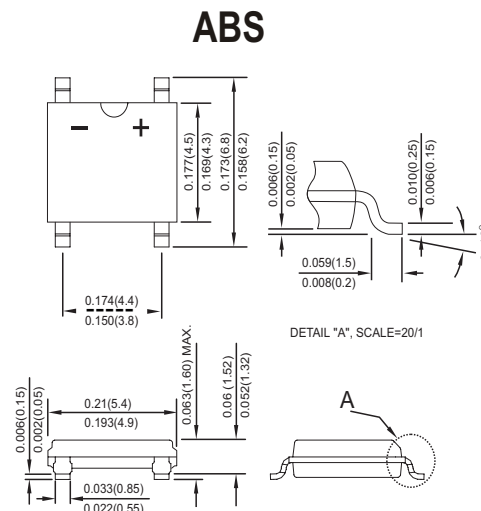
Rectifier Reverse Voltage 50 to 1000V

### Features

- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 30 amperes
- 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          | ABS05        | ABS1 | ABS2 | ABS4 | ABS6 | ABS8 | ABS10 | 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 $T_A=40^{\circ}C$                 | $I_{F(AV)}$     | 0.8          |      |      |      |      |      |       | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$       | 25           |      |      |      |      |      |       | A                  |
| Rating for fusing ( $t < 8.3ms$ )                                                     | $I^2 t$         | 4.0          |      |      |      |      |      |       | A <sup>2</sup> sec |
| Typical thermal resistance per element (1)                                            | $R_{\theta JA}$ | 80           |      |      |      |      |      |       | °C / W             |
| Operating junction and storage temperature range                                      | $T_J, T_{STG}$  | -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 %.

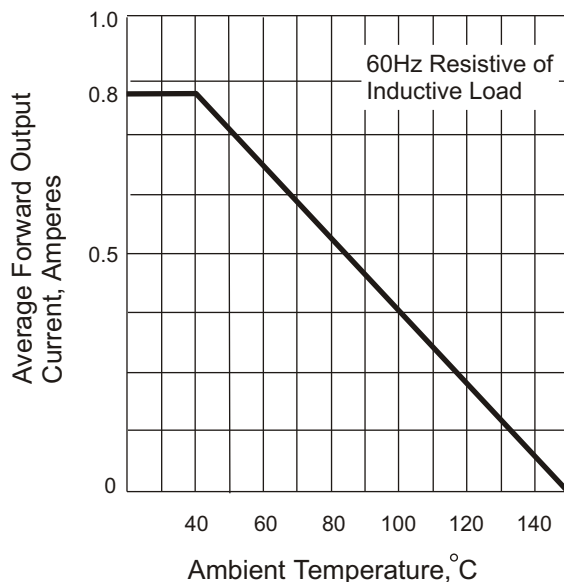
| Parameter                                                                                                       | Symbol | ABS05     | ABS1 | ABS2 | ABS4 | ABS6 | ABS8 | ABS10 | Unit    |
|-----------------------------------------------------------------------------------------------------------------|--------|-----------|------|------|------|------|------|-------|---------|
| Maximum instantaneous forward voltage drop per leg at 0.8A                                                      | $V_F$  | 1.1       |      |      |      |      |      |       | V       |
| Maximum DC reverse current at rated $T_A = 25^{\circ}C$<br>DC blocking voltage per element $T_A = 125^{\circ}C$ | $I_R$  | 10<br>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.

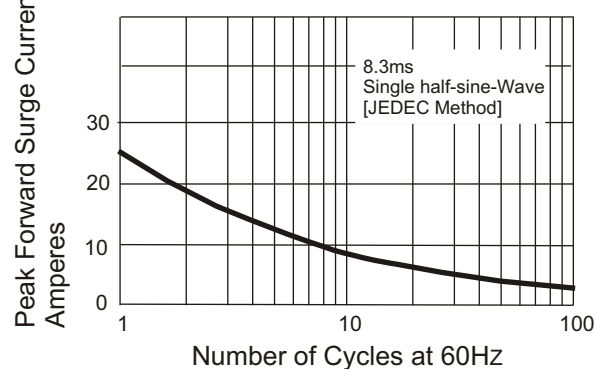
# Rating and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ Unless otherwise noted )

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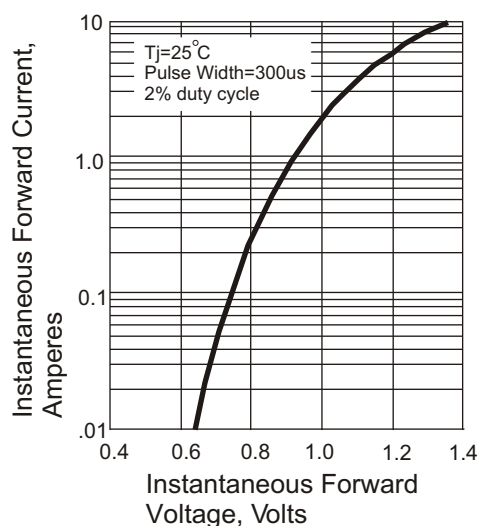
**Fig. 1 Derating Curve for Output Rectified Current**



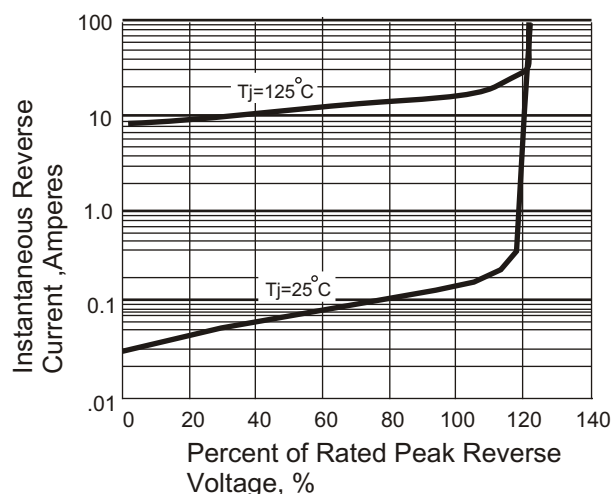
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Revers Characteristics**



**Fig. 5 Typical Junction Capacitance**

