

## ■ Features

- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 50 amperes
- Ideal for printed circuit board application
- High temperature soldering guaranteed 260 °C/5 seconds at 5 lbs (2.3kg ) tension

## ■ Mechanical Data

- Case: Reliable low cost construction utilizing molded plastic technique
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Mounting Position: Any

## ■ Maximum Ratings & Thermal Characteristics

Parameter	Symbol	DB301S	DB302S	DB303S	DB304S	DB305S	DB306S	DB307S	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 $T_A=40^{\circ}C$	$I_{F(AV)}$	3.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	80							A
Rating for fusing ( $t < 8.3ms$ )	$i^2t$	26.35							$A^2 sec$
Typical thermal resistance per element (1)	$R_{\theta JA}$	58							$^{\circ}C/W$
Typical junction capacitance per element (2)	$C_J$	25.0							pF
Operating junction and storage temperature range	$T_J$ $T_{STG}$	-55 to + 150							$^{\circ}C$

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

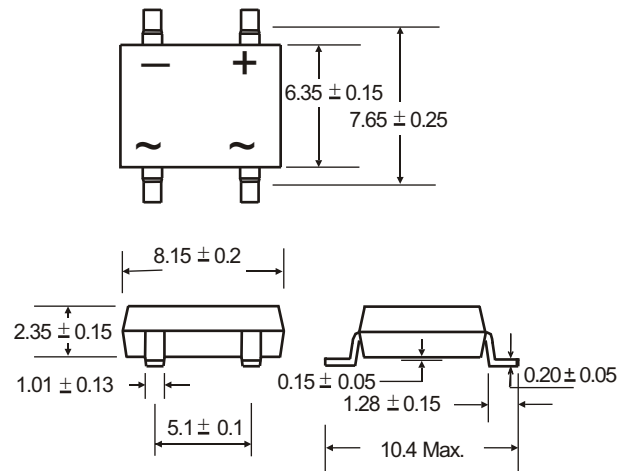
## ■ Electrical Characteristics

CHARACTERISTICS	SYMBOL	DB301S	DB302S	DB303S	DB304S	DB305S	DB306S	DB307S	UNIT
Maximum instantaneous forward voltage drop per leg at 3.0A	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_J=25^{\circ}C$	$I_R$	10							$\mu A$
at Rated DC Blocking Voltage @ $T_J=125^{\circ}C$		500							

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

Thermal resistance from Junction to Ambient on P.C.board mounting.

Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

**DB-S**


Dimensions in inches and (millimeters)



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

Fig. 1 Derating Curve for Output Rectified Current

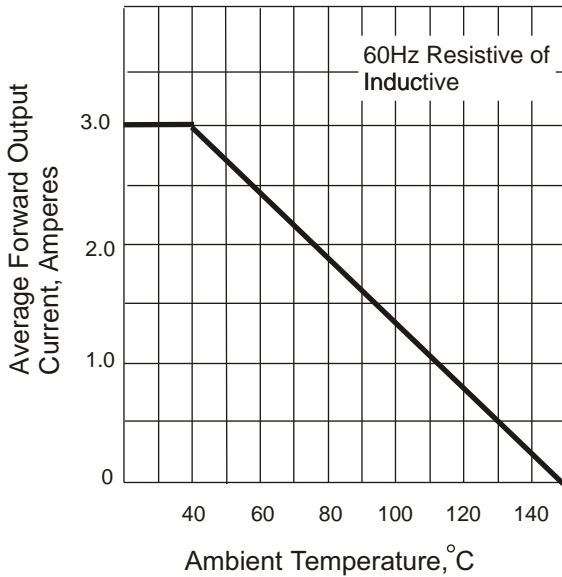


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

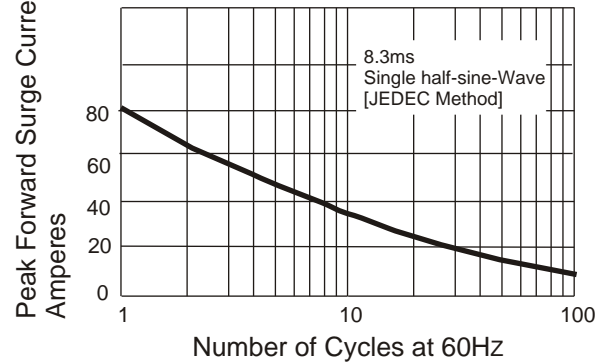


Fig. 3 Typical Instantaneous Forward Characteristics

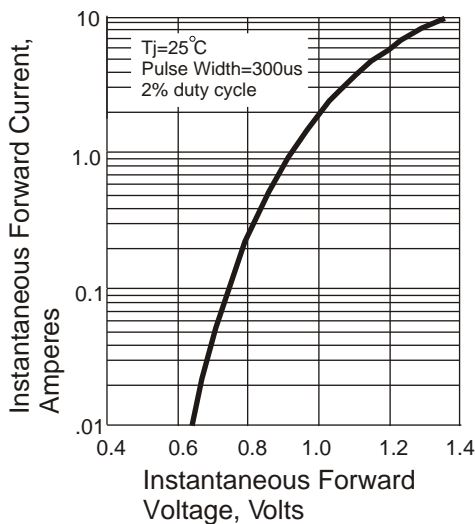


Fig. 4 Typical Revers Characteristics

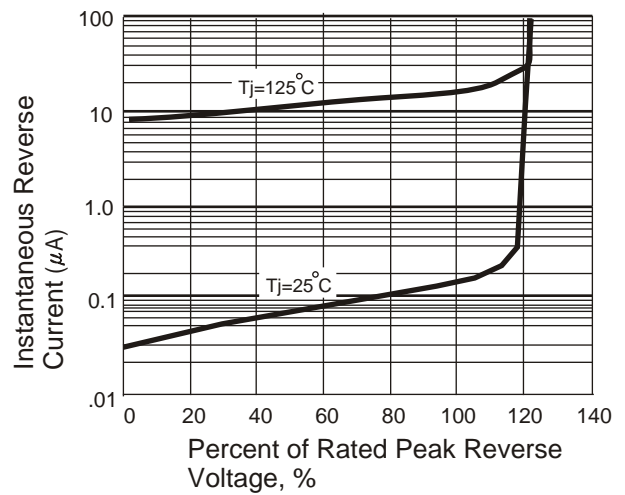


Fig. 5 Typical Junction Capacitance

