



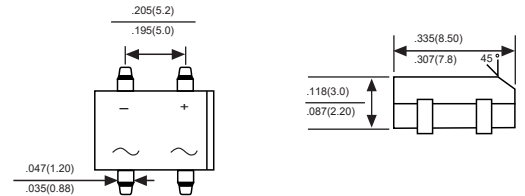
# DB301S THRU DB307S

Voltage Range - 50 to 1000 Volts Current - 3.0 Ampere

## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

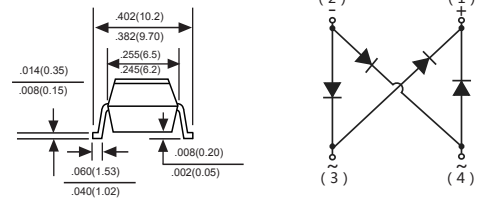
### Features

- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ High temperature soldering guaranteed: 260°/10 seconds at 5 lbs., (2.3kg) tension
- ◆ Small size, simple installation
- ◆ High surge current capability



### Mechanical Data

**Case** : JEDEC DBS Molded plastic body  
**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity** : Polarity symbol marking on body  
**Mounting Position** : Any  
**Weight** : 0.02 ounce, 0.4 grams



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MDD DB301S	MDD DB302S	MDD DB303S	MDD DB304S	MDD DB305S	MDD DB306S	MDD DB307S	UNITS
Marking Code									
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS 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 current at $T_A=40^\circ C$	$I_{F(AV)}$	3.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	80							A
Maximum instantaneous forward voltage drop per leg at 3.0A	$V_F$	1.1							V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	10 500							$\mu A$ $\mu A$
$I^2t$ Rating for Fusing (t<8.3ms)	$I^2t$	10.4							$A^2s$
Operating temperature range (Note1)	$C_J$	25							pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	110							$^\circ C/W$
Operating temperature range	$T_J$	-55 to +150							$^\circ C$
storage temperature range	$T_{STG}$	-55 to +150							$^\circ C$

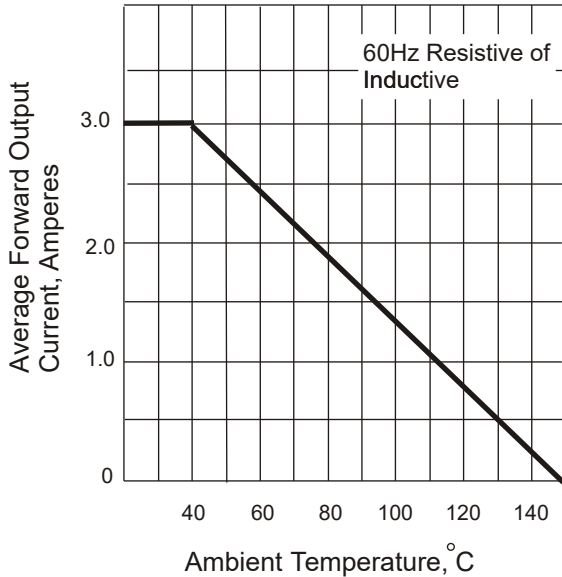
NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient mounted on P.C.B. with 0.5\*0.5"(13\*13mm) copper pads.

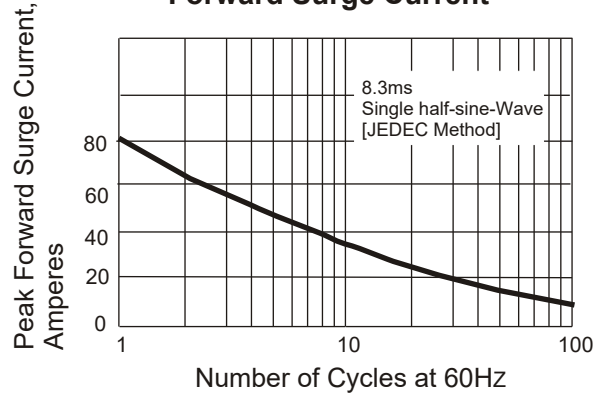


## Ratings And Characteristic Curves

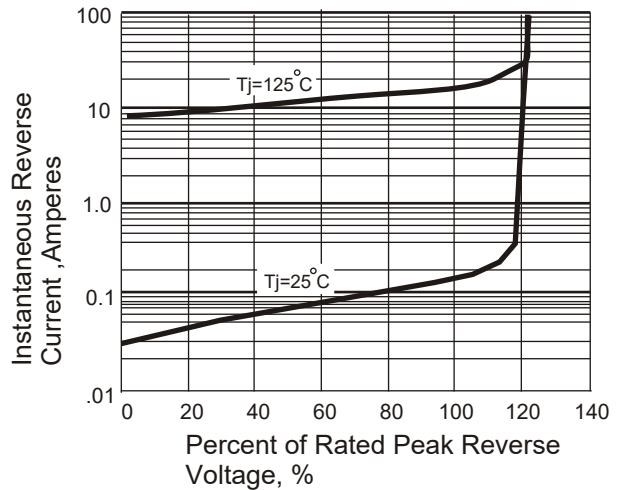
**Fig. 1 Derating Curve for Output Rectified Current**



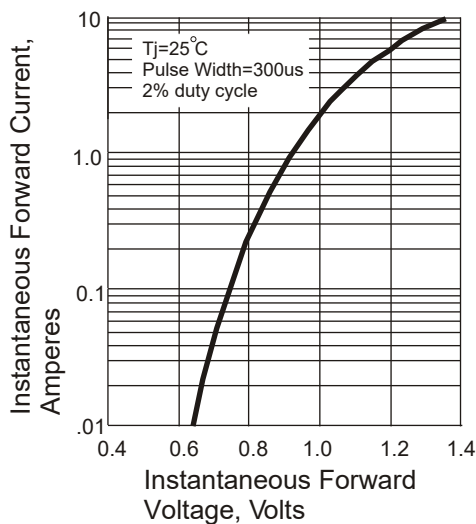
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



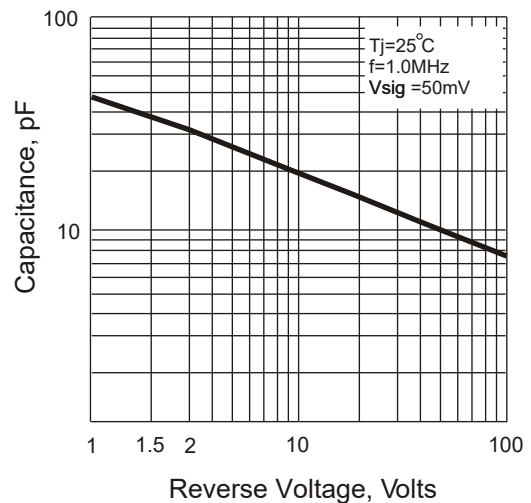
**Fig. 4 Typical Revers Characteristics**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 5 Typical Junction Capacitance**



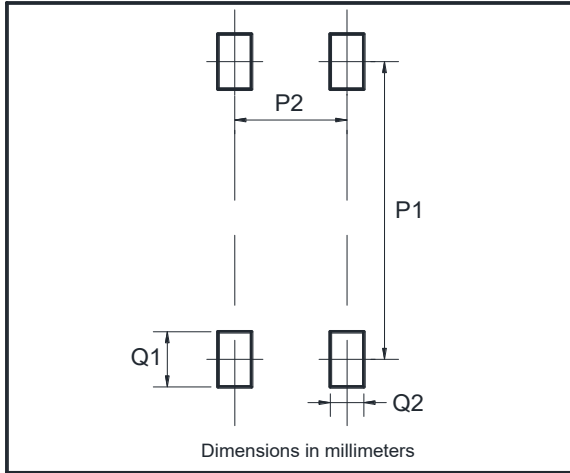
The curve above is for reference only.



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## Suggested Pad Layout



Dim	Min
P1	8.73
P2	5.12
Q1	2.22
Q2	1.2