DB301S THRU DB307S

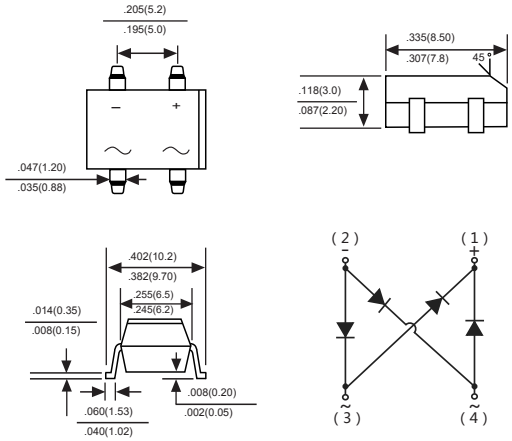
Voltage Range - 50 to 1000 Volts Current - 3.0 Ampere

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

Features

DBS

- 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 unlss otherwise specified.

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

Parameter / Marking Code	SYMBOLS	MDD DB301S	MDD DB302S	MDD DB303S	MDD DB304S	MDD DB305S	MDD DB306S	MDD DB307S	UNITS
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°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 T_A=25°C T_A=125°C	I_R	10 500							μA μA
I^2t Rating for Fusing (t<8.3ms)	I^2t	27							A^2s
Operating temperature range (Note1)	C_J	25							pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	110							°C/W
Operating temperature range	T_J	-55 to +150							°C
storage temperature range	T_{STG}	-55 to +150							°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.with0.5*0.5"(13*13mm) copper pads.

Ratings And Characteristic Curves

Fig. 1 Derating Curve for Output Rectified Current

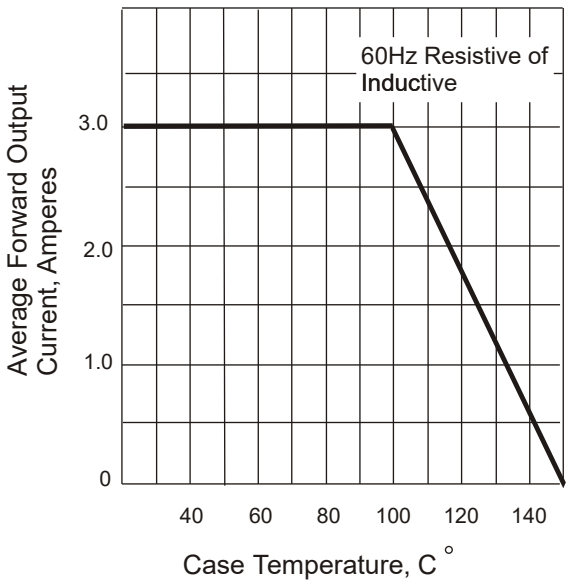


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

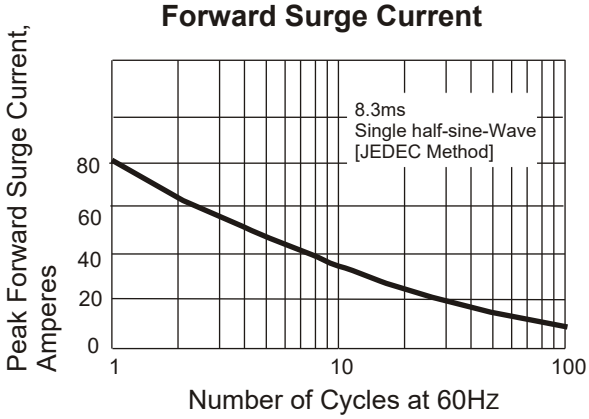


Fig. 4 Typical Revers Characteristics

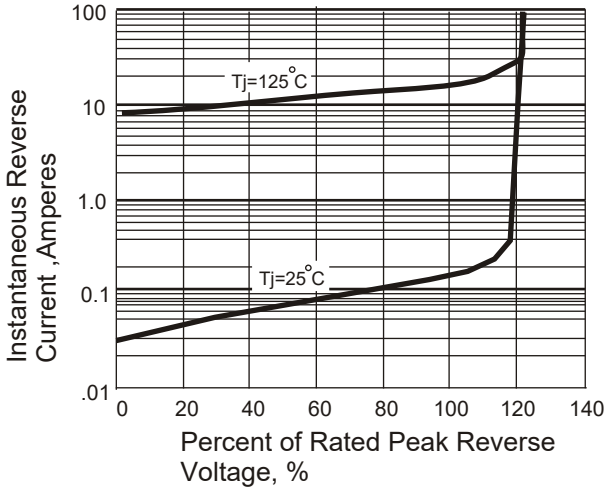


Fig. 3 Typical Instantaneous Forward Characteristics

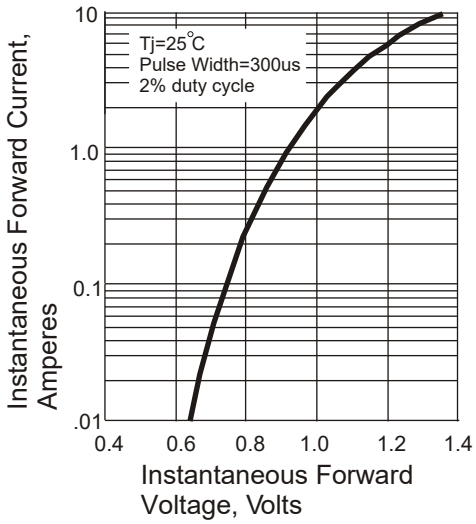
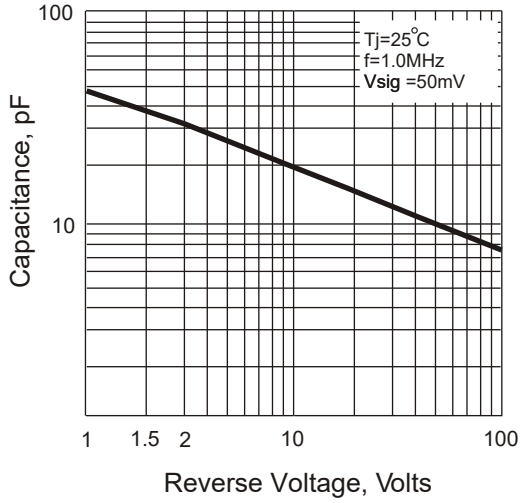
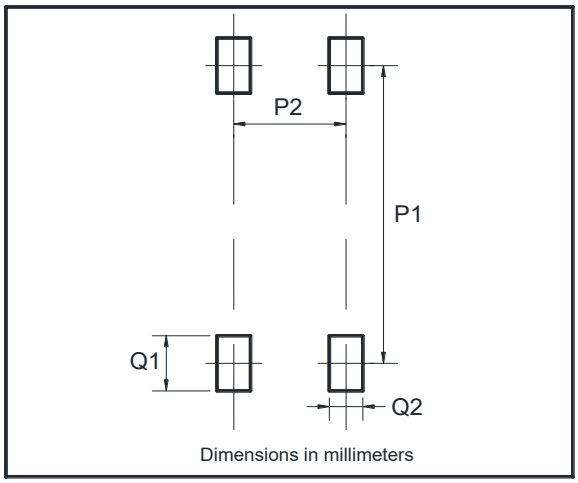


Fig. 5 Typical Junction Capacitance



The curve above is for reference only.

Suggested Pad Layout



Dim	Min
P1	8.73
P2	5.12
Q1	2.22
Q2	1.2