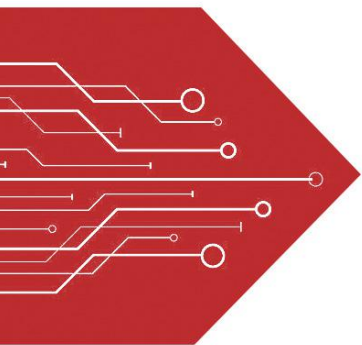


# MSKSEMI

SEMICONDUCTOR



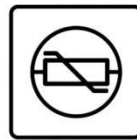
ESD



TVS



TSS



MOV



GDT



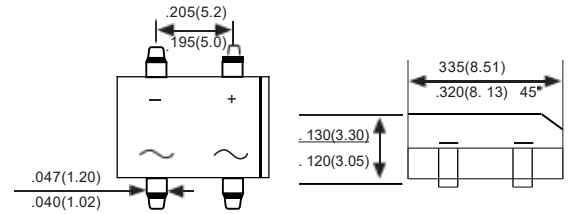
PLED

Product data sheet

[www.msksemi.com](http://www.msksemi.com)

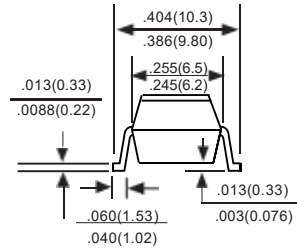
## Features

- 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)

## REEL SPECIFICATION

P/N	PKG	QTY
DB301S-DB307S	DBS	1500

## 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	DB301S	DB302S	DB303S	DB304S	DB305S	DB306S	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 $T_A=40^\circ\text{C}$	$I_{F(AV)}$				3.0				A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$				85				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 $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$				10 500				pA pA
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$				10.4				A <sup>2</sup> s
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. with 0.5\*0.5" (13\*13mm) copper pads.

## Ratings And Characteristic Curves

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

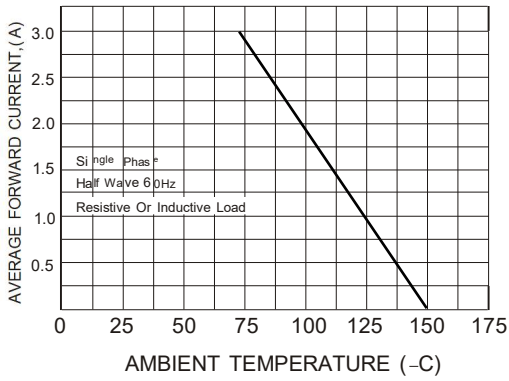


FIG. 2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

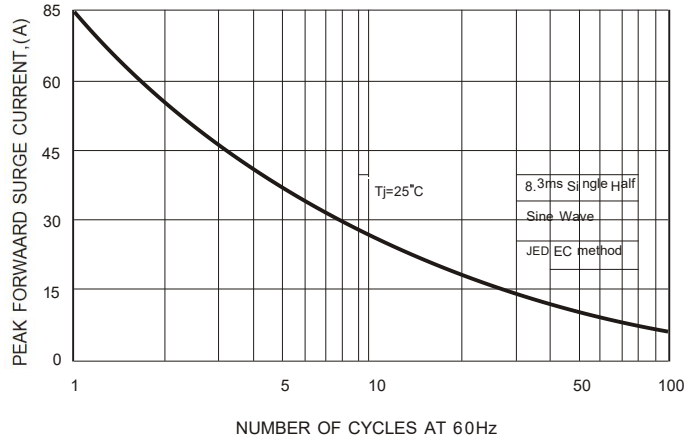


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

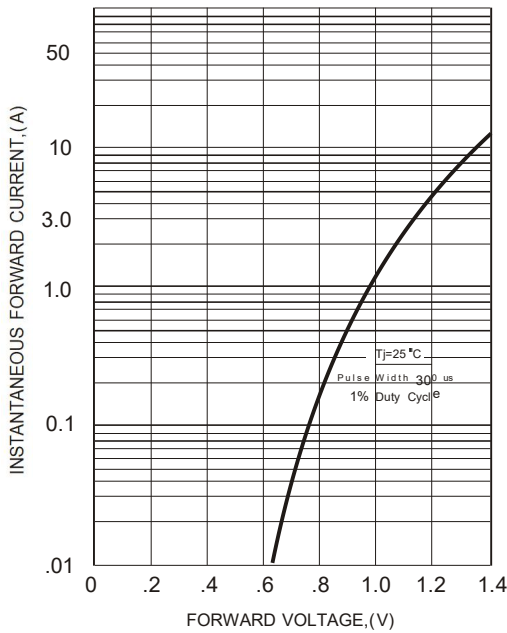
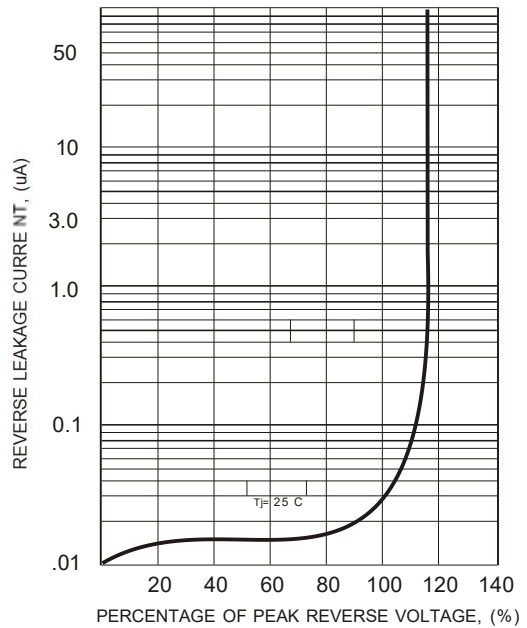


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



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