

DB301S THRU DB307S

DBS 3.0 AMP Plastic-Encapsulate Bridge Rectifier

DBS Plastic-Encapsulate Bridge Rectifier

Features

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

Applications

General purpose 1 phase Bridgerectifier applications

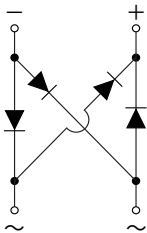
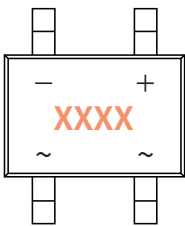
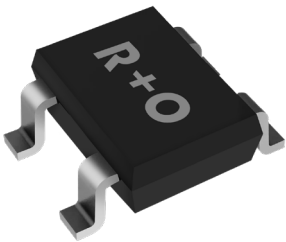
Mechanical Data

- Case: DBS
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

Function Diagram

Reverse Voltage
50-1000 V
Forward Current
3 Ampere

DBS



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DB301S	DB302S	DB303S	DB304S	DB305S	DB306S	DB307S
Device marking code			DB301S	DB302S	DB303S	DB304S	DB305S	DB306S	DB307S
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	3.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	80						
Rating for fusing (t=8.3ms, Ta=25 °C)	I^2t	A ² S	26.5						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	70						
	$R_{\theta J-L}$	°C /W	18						

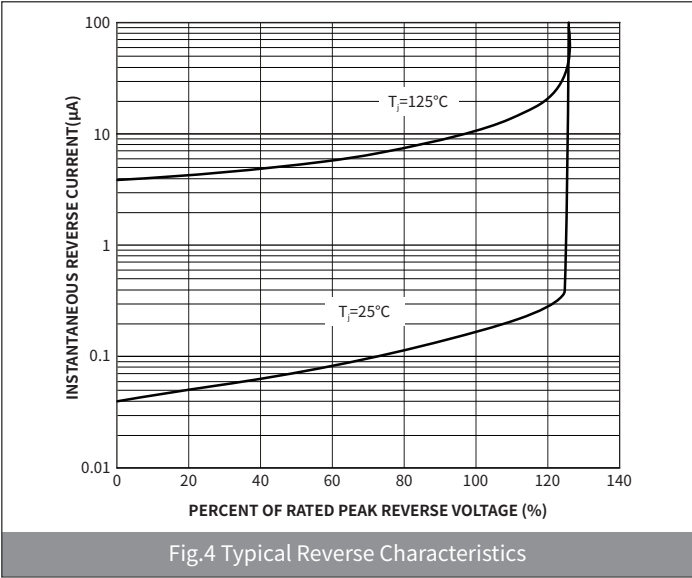
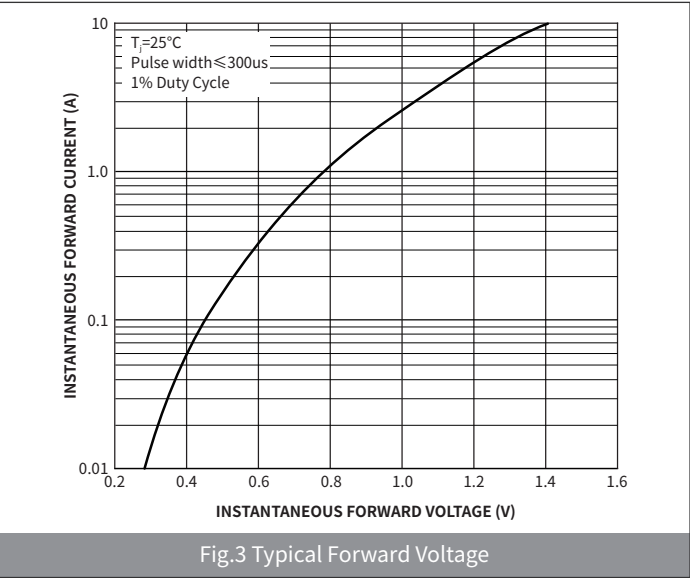
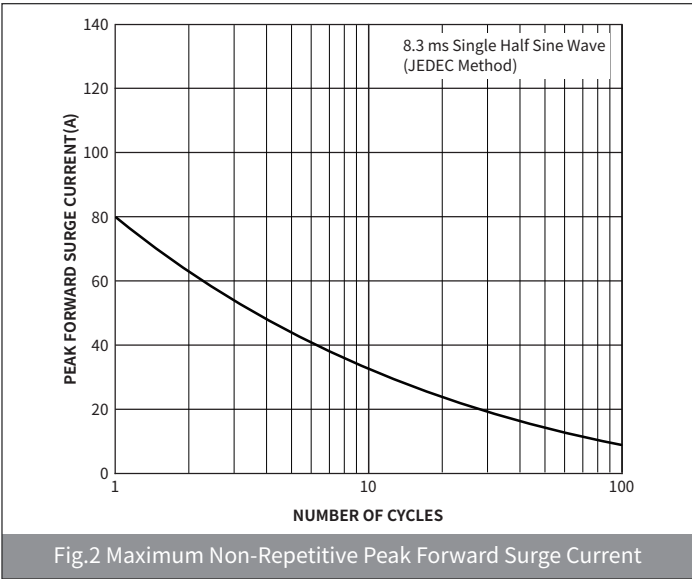
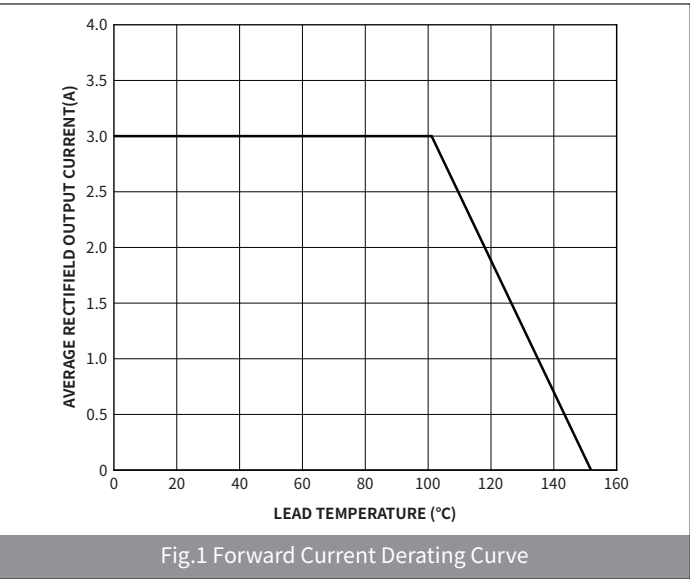
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Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	DB301S	DB302S	DB303S	DB304S	DB305S	DB306S	DB307S
Maximum instantaneous forward voltage	$I_F=3.0A$	V_F	V	1.1						
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^{\circ}C$	I_{R1}	μA	5.0						
	$V_R=V_{DC}, T_A=100^{\circ}C$	I_{R2}		500						
Typical junction capacitance	4.0V DC, 1MHz	C_J	pF	32						

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



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Ordering Information

PACKAGE	PACKAGE CODE	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
DBS	R2	1500	3000	21000	11"

Package Outline Dimensions (DBS)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	6.20	6.50	0.244	0.256
B	7.95	8.35	0.313	0.329
C	9.60	10.30	0.378	0.406
D	5.00	5.20	0.197	0.205
E	1.80	2.10	0.071	0.083
F	0.08	0.33	0.003	0.013
G	1.13	1.43	0.044	0.056
H	0.15	0.25	0.006	0.010
J	0.88	1.14	0.035	0.045
K	2.20	2.5	0.087	0.098
θ	-	45°	-	45°

Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	8.68	8.78	0.342	0.346
N	5.07	5.17	0.200	0.204
Y	2.17	2.27	0.085	0.089
X	1.15	1.25	0.045	0.049