DBS Plastic-Encapsulate Bridge Rectifier

Features

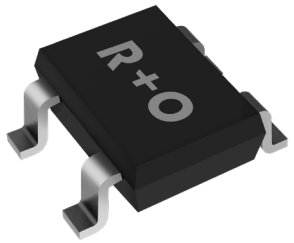
- Ideal for printed circuit board
- Small size, simple installation
- High surge current capability
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260/10 seconds at 5lbs., (2.3kg) tension

Reverse Voltage
50-1000 V
Forward Current
3 Ampere

Applications

General purpose 1 phase Bridgerectifier applications

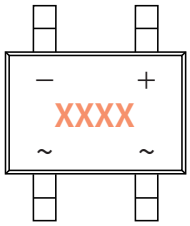
DBS

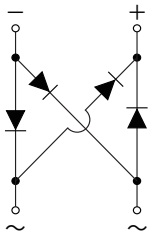


Mechanical Data

- 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





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^2S	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						

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 currentat rated DC blocking voltage	V_R=V_{DC}, T_A=25°C	I_{R1}	μA	5.0						
	V_R=V_{DC}, T_A=100°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)

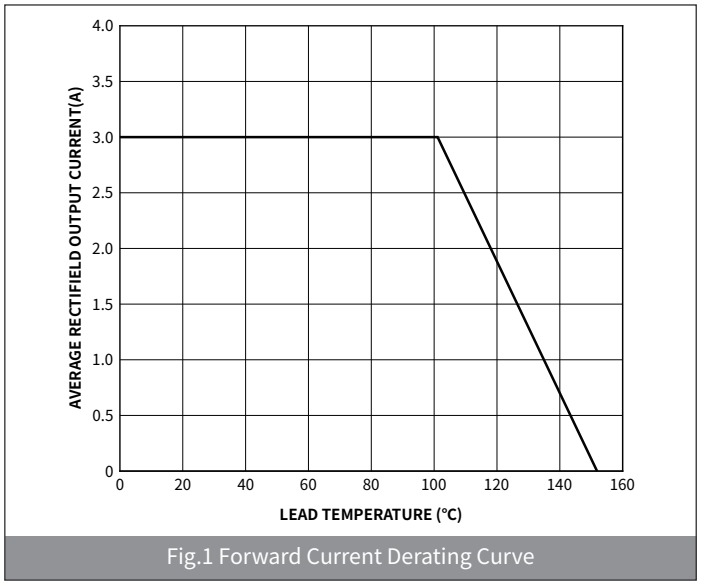


Fig.1 Forward Current Derating Curve

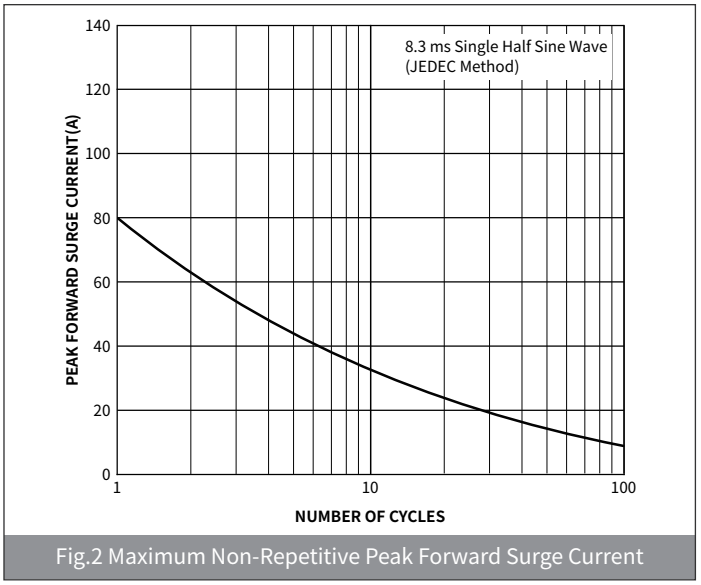


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

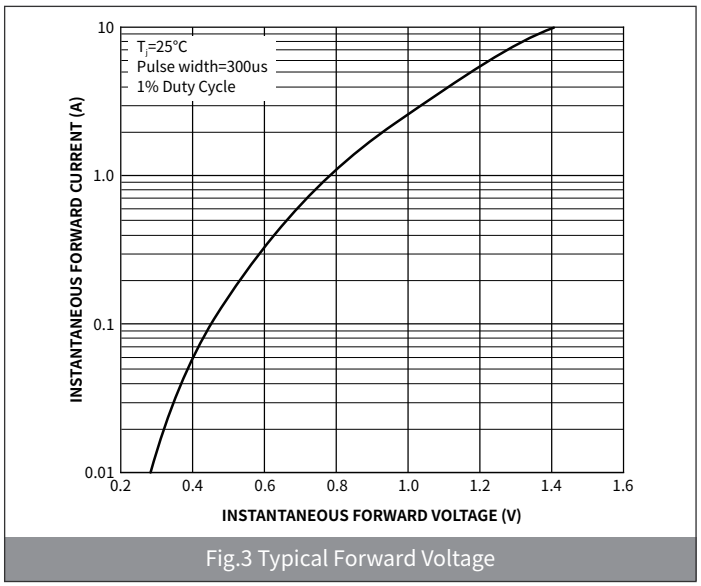


Fig.3 Typical Forward Voltage

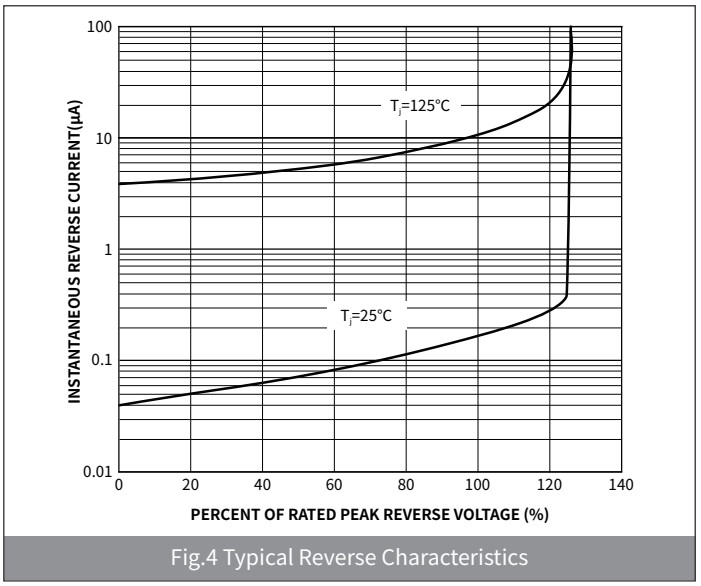
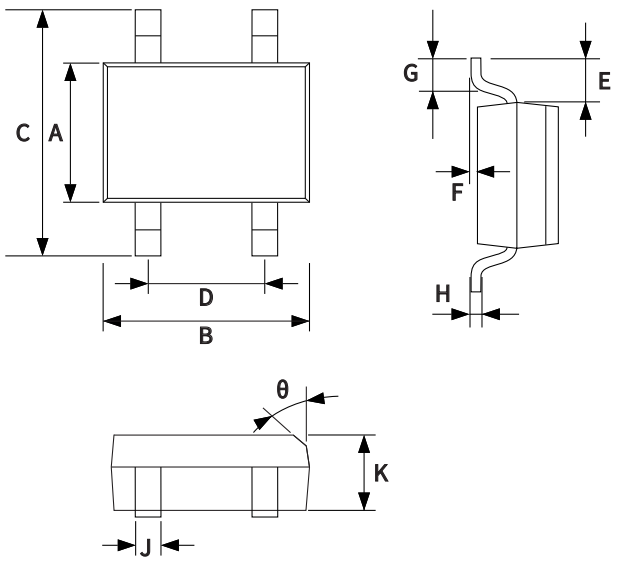


Fig.4 Typical Reverse Characteristics

Ordering Information

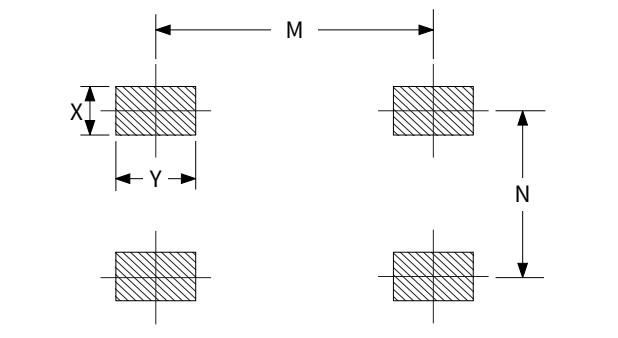
PACKAGE	PACKAGE CODE	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
DBS	R3	1500	3000	21000	13''

Package Outline Dimensions (DBS)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	6.20	6.50	0.245	0.255
B	8.0	8.5	0.315	0.334
C	9.50	10.10	0.374	0.397
D	5.00	5.20	0.195	0.205
E	1.80	2.10	0.071	0.083
F	0.05	0.35	0.002	0.013
G	0.95	1.50	0.037	0.059
H	0.22	0.33	0.009	0.013
J	0.89	1.14	0.035	0.045
K	2.30	3.30	0.090	0.130
θ	-	45°	-	45°

Suggested Pad Layout



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