

DB 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

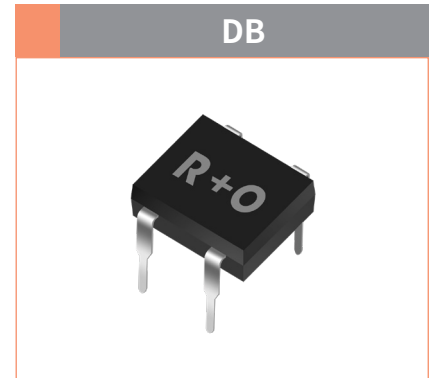
Reverse Voltage
50-1000 V
Forward Current
3.0 Ampere

Applications

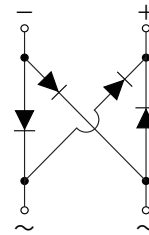
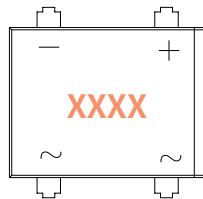
General purpose 1 phase Bridgerectifier applications

Mechanical Data

- Case: DB
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



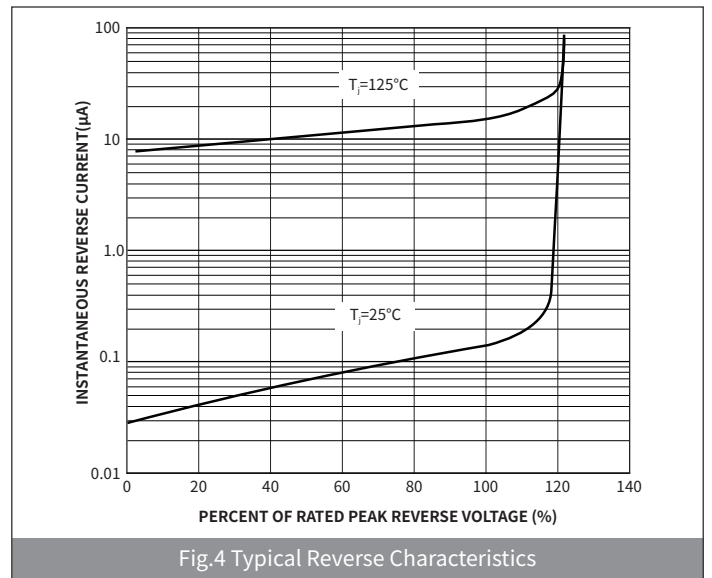
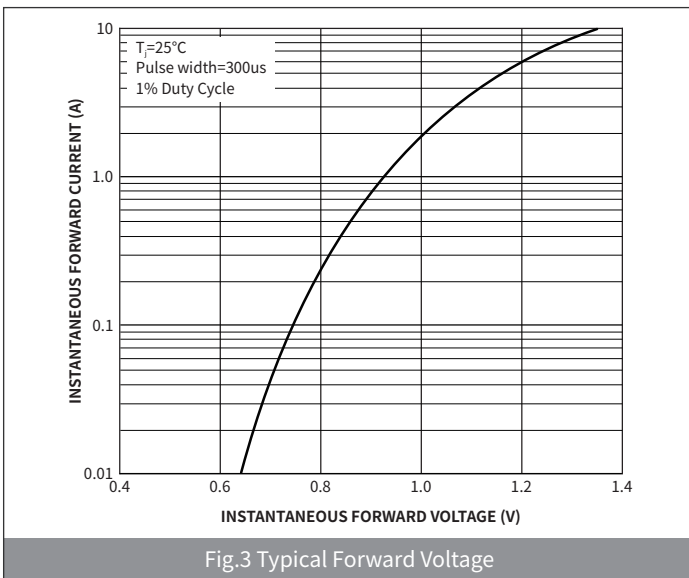
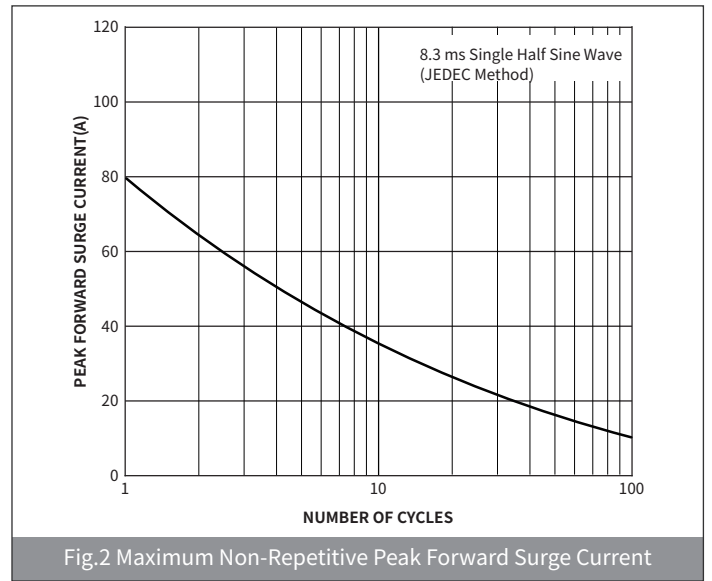
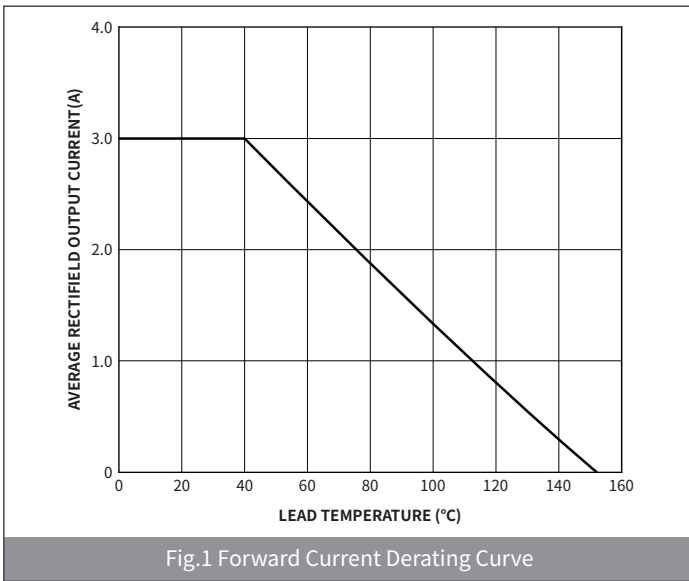
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DB301	DB302	DB303	DB304	DB305	DB306	DB307
Device marking code			DB301	DB302	DB303	DB304	DB305	DB306	DB307
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	26.56						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	58						
	$R_{\theta J-L}$	°C /W	12						

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	DB301	DB302	DB303	DB304	DB305	DB306	DB307
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	10						
	$V_R=V_{DC}, T_A=100^\circ C$	I_{R2}		500						
Typical junction capacitance	4.0V DC, 1MHz	C_J	pF	25						

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



DB301 THRU DB307

DB 3.0 AMP Plastic-Encapsulate Bridge Rectifier

● Ordering Information

PACKAGE	UNIT WEIGHT(g)	TUBE(pcs)	BOX(pcs)	CARTON(pcs)
DB	0.34	50	2500	10000

● Package Outline Dimensions (DB)

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	5.00	5.20	0.197	0.205
D	0.95	1.15	0.037	0.045
E	1.39	1.9	0.055	0.074
e	0.46	0.58	0.018	0.023
F	2.20	2.50	0.087	0.098
G	1.27	2.03	0.050	0.800
H	7.24	8.00	0.285	0.315
I	7.6	8.9	0.300	0.350
J	0.15	0.25	0.006	0.0098
K	3.81	4.69	0.15	0.185

