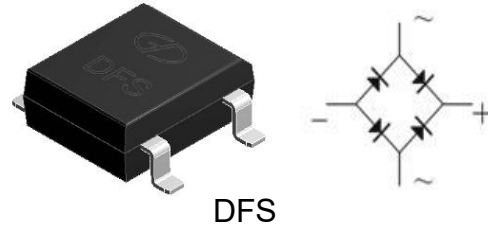


Reverse Voltage 200~1000V Forward Current 1.0A

Features

- Glass passivated Bridge Rectifiers
- Ideal for automated placement
- High surge current capability
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds



Typical Applications

- General purpose use in ac-to dc bridge full wave rectification for SMPS, lighting, adapter, charger, home appliances, office equipment, and telecommunication applications

Mechanical Data

- Case: DFS, Epoxy meets UL-94V-0 Flammability rating
- Terminals : Matte tin plated(E3 Suffix) leads, solderable per J-STD-002B and JESD22-B102D
- Polarity : As marked on body

Maximum Ratings (TA = 25 °C unless otherwise noted)							
Parameter	Symbol	DB103S	DB104S	DB105S	DB106S	DB107S	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	40					A
Rating for fusing ($t \leq 8.3ms$)	i^2t	6.7					A ² s
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150					°C
Typical junction capacitance	4.0 V, 1 MHz	C_J	10.5				pF

Electrical Characteristics (TA = 25 °C unless otherwise noted)								
Parameter	Test Conditions	Symbol	DB103S	DB104S	DB105S	DB106S	DB107S	Unit
Maximum instantaneous forward voltage	0.5A	V _F	1.0					Volts
	1.0A		1.1					
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I _R	5					μA
	TA=125°C		50					
Typical thermal resistance ¹⁾	junction to ambient	R _{θJA}	42					°C/W
	junction to case	R _{θJC}	12					

Note: 1)The thermal resistance from junction to ambient,case or mount,mounted on P.C.B with 13×13mm copper pads,2 OZ,FR4 PCB

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

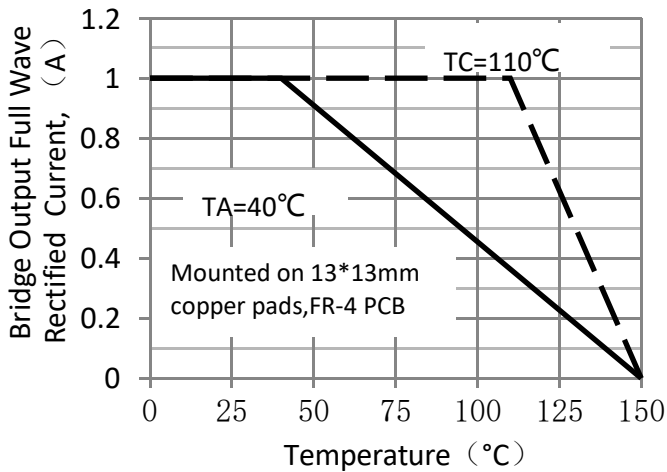


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

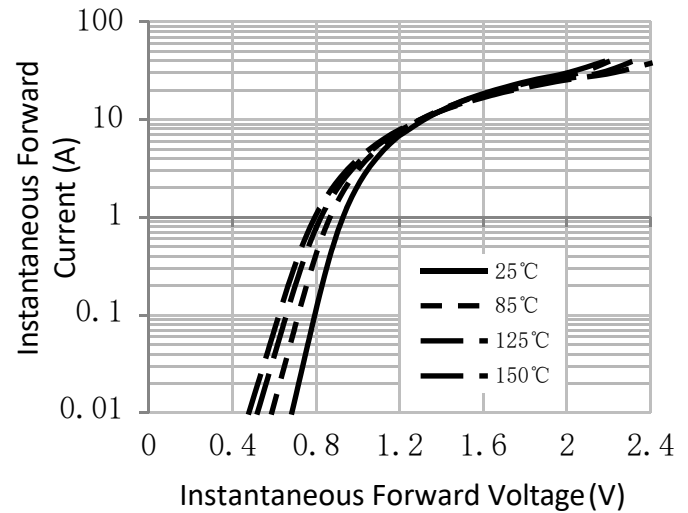


FIG.3-TYPICAL REAK REVERSE VOLTAGE CHARACTERISTICS

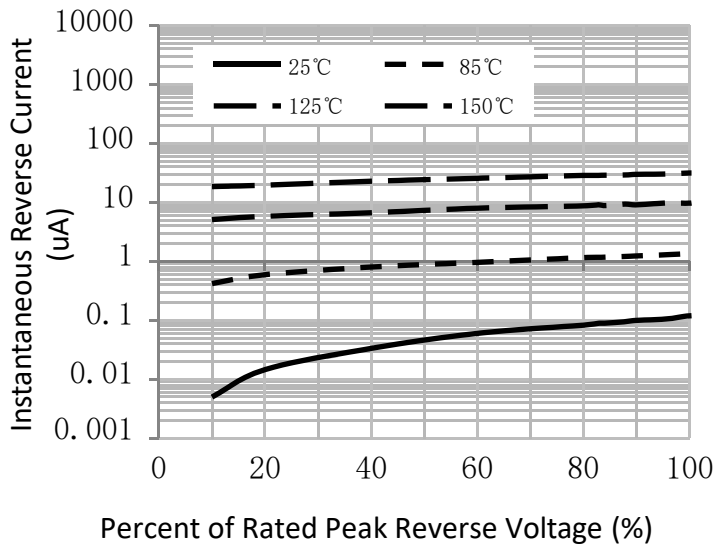
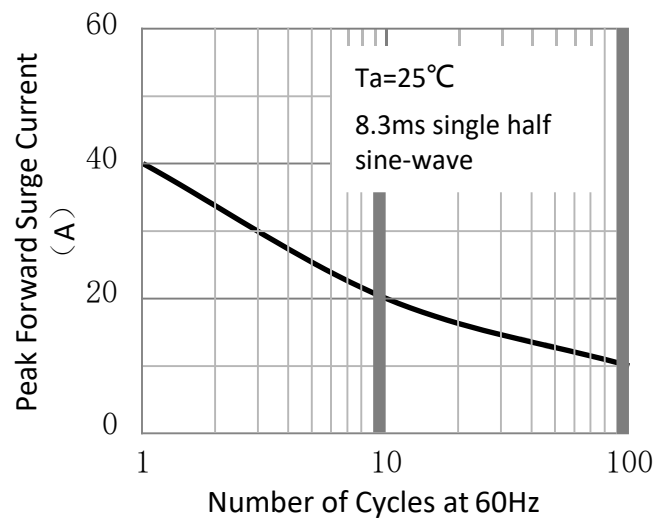
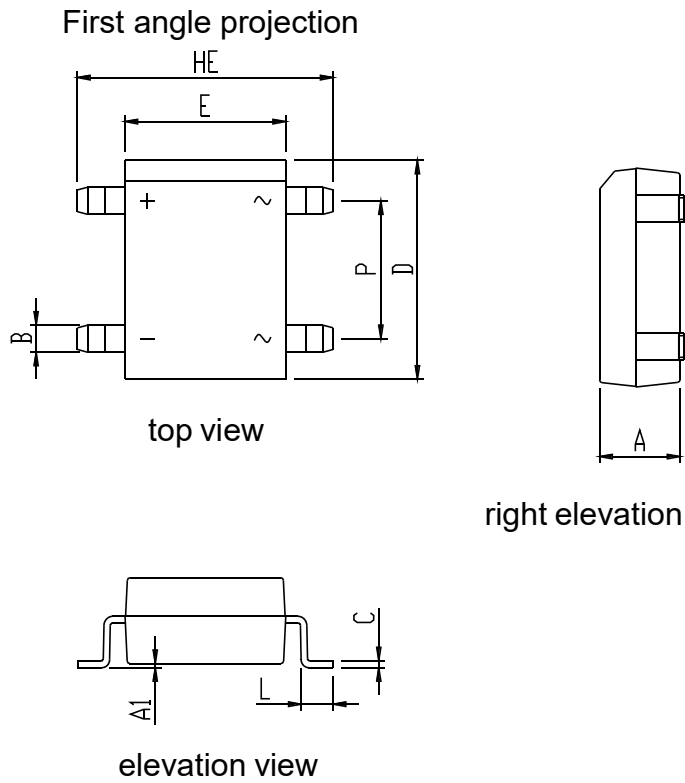


FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



Package Outline Dimensions

in inches (millimeters)



Dim	unit:mm		unit:inch	
	Min	Max	Min	Max
A	3.05	3.30	0.120	0.130
A1	0.08	0.33	0.003	0.013
B	1.02	1.20	0.040	0.047
C	0.22	0.33	0.009	0.013
D	8.00	8.51	0.315	0.335
E	6.20	6.50	0.244	0.256
HE	9.80	10.30	0.386	0.406
L	1.02	1.52	0.040	0.060
P	5.00	5.20	0.197	0.205

Revision History

Document Version	Date of release	Discription of changes
Rev.A	2021/3/21	Released Datasheet
Rev.B	2023/12/21	Modify document format

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