

1A Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifiers

■ Features

- Surge overload ratings to 30 amperes peak.
- Surface mount type for automated replacement.
- Ideal for printed board.
- Low forward drop down voltage.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Glass passivated chip junctions.
- Suffix "G" indicates Halogen-free part, ex.DF101SG.
- Lead-free parts meet RoHS requirements.

■ Mechanical data

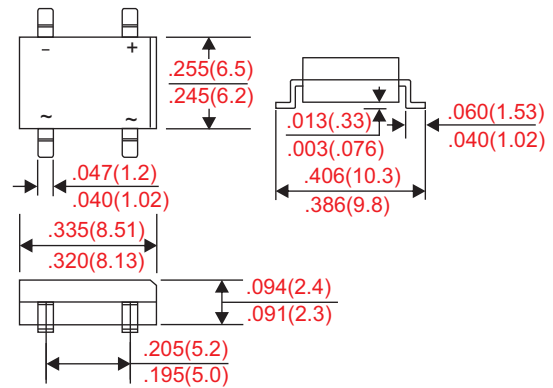
- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, DFS
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any
- Weight : Approximated 1.00 gram

■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

■ Outline

DFS



Dimensions in inches and (millimeters)

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	at TA = 25°C	I _O			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I _{FSM}			30	A
Reverse current	V _R = V _{RRM} T _A = 25°C	I _R			10	uA
	V _R = V _{RRM} T _A = 125°C				500	
Current squared time	t < 8.3ms, T _J = 25°C	I ² t			3.7	A ² S
Thermal resistance	junction to ambient	R _{BJA}			68	°C/W
Storage temperature		T _{STG}	-55		+150	°C

Symbol	Marking code	Max. repetitive peak reverse voltage V _{RRM} (V)	Max. RMS voltage V _{RMS} (V)	Max. DC blocking voltage V _R (V)	Max. forward voltage @0.5A, T _A = 25°C V _F (V)	Operating temperature T _J (°C)
DF101S	DBL101S	50	35	50	1.05	-55 ~ +150
DF102S	DBL102S	100	70	100		
DF103S	DBL103S	200	140	200		
DF104S	DBL104S	400	280	400		
DF105S	DBL105S	600	420	600		
DF106S	DBL106S	800	560	800		
DF107S	DBL107S	1000	700	1000		

■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

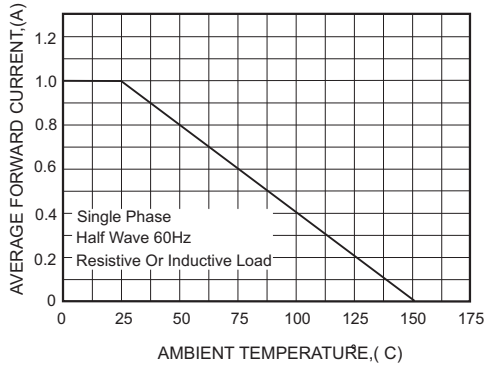


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

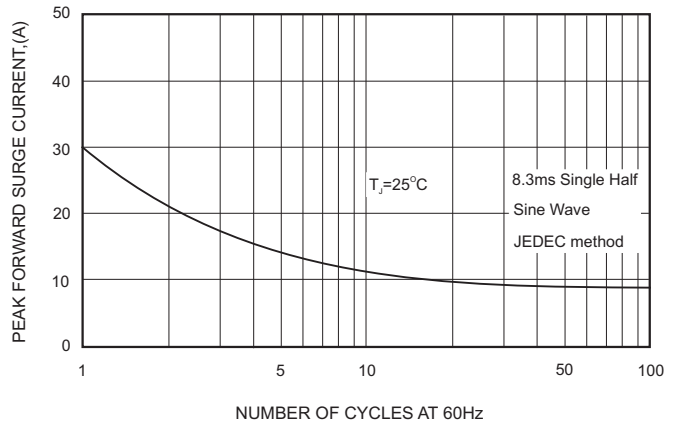


Fig. 3 - Typical Instantaneous Forward Characteristics (Per Leg)

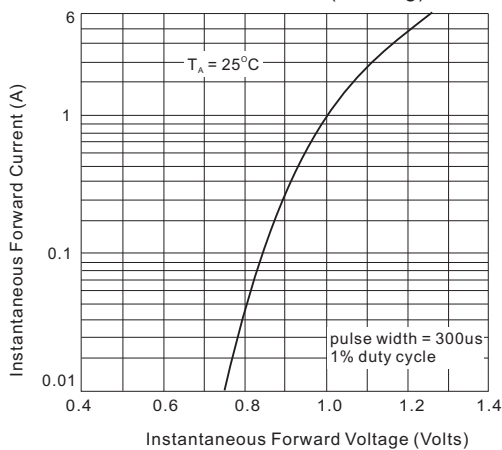
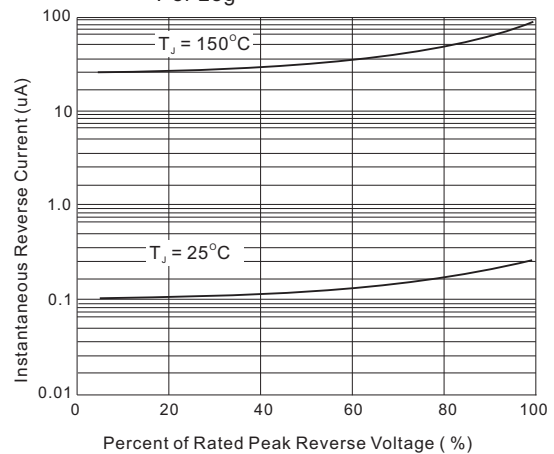
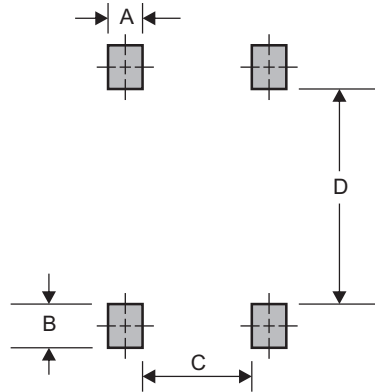


Fig. 4 - Typical Reverse Characteristics Per Leg



■ DFS foot print



A	B	C	D
0.059 (1.50)	0.047 (1.20)	0.157 (4.00)	0.291 (7.40)

Dimensions in inches and (millimeters)

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