DF151S THRU DF157S

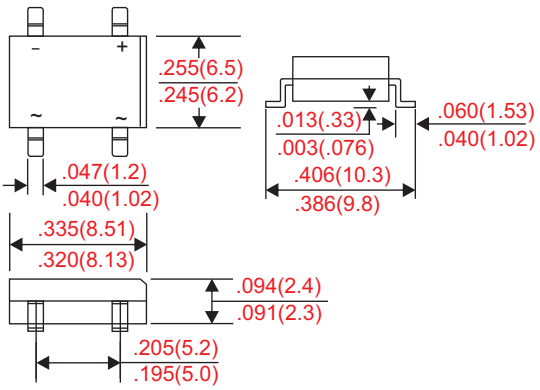
1.5A Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifiers

■ 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.DF151SG.
- Lead-free parts meet RoHS requirments.

■ Outline

DFS



Dimensions in inches and (millimeters)

■ 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%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	at TA = 25°C	I_O			1.5	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^2t			3.7	A^2S
Thermal resistance	junction to ambient	$R_{\theta JA}$			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 @1.5A, $T_A = 25°C$ V_F (V)	Operating temperature T_J (°C)
DF151S	DBL151S	50	35	50	1.1	-55 ~ +150
DF152S	DBL152S	100	70	100		
DF153S	DBL153S	200	140	200		
DF154S	DBL154S	400	280	400		
DF155S	DBL155S	600	420	600		
DF156S	DBL156S	800	560	800		
DF157S	DBL157S	1000	700	1000		

Document ID : DS-22B08
Issued Date : 2010/05/05
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■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

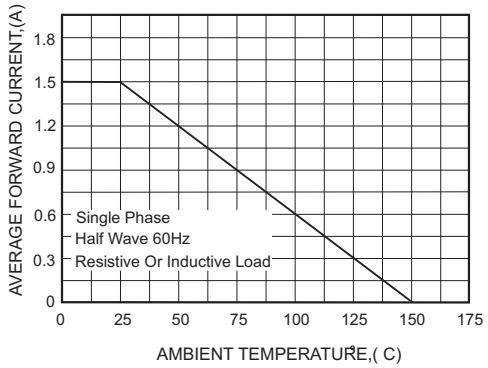


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

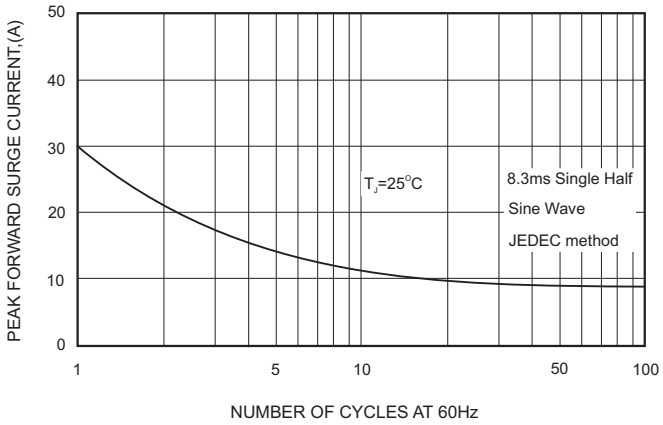


Fig. 3 - Typical Instantaneour Forward Characteristics (Per Leg)

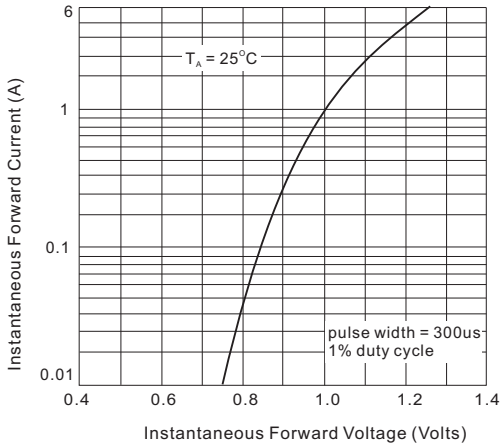
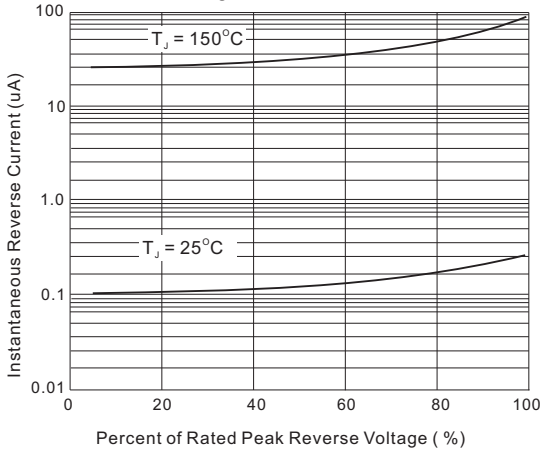
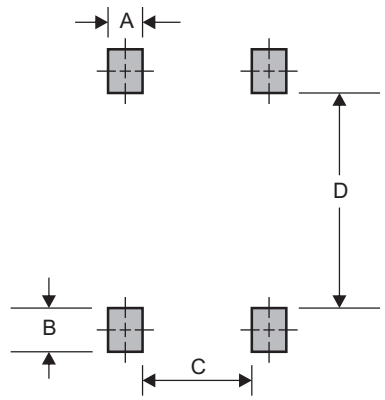


Fig. 4 - Typical Reverse Characteristics Per Leg



Document ID : DS-22B08
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■ 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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Document ID : DS-22B08
Issued Date : 2010/05/05
Revised Date : 2012/05/31
Revision : C