

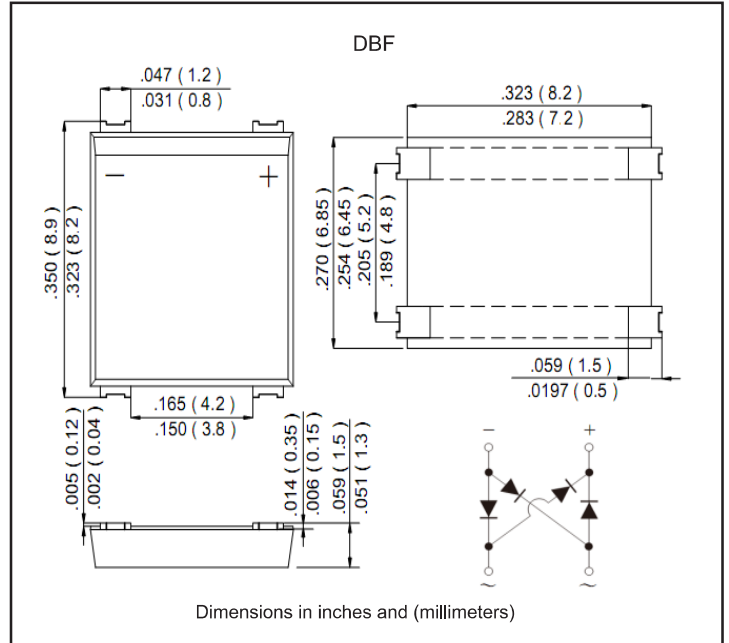
Features

- Surge overload ratings to 80 amperes peak.
- Save space on printed circuit board.
- Ideal for automated replacement.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Glass passivated chip junctions.
- Lead-free parts meet RoHS requirements.
- Compliant to Halogen-free

Mechanical data

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

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	I_O			3.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			80	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^\circ\text{C}$	I_R			5.0	uA
	$V_R = V_{RRM}$ $T_J = 125^\circ\text{C}$				200	
I^2t Rating for Fusing	$t < 8.3\text{ms}$	I^2t			26.56	A^2s
Typical Junction Capacitance Per Element	Measured at 1.0MHz and applied reverse voltage of 4.0V DC	C_J		45		pF
Typical thermal resistance	Junction to ambient mounted on P.C.B with 0.5×0.5 " ($13 \times 13\text{mm}$) copper pads.	$R_{\theta JA}$		15		$^\circ\text{C}/\text{W}$
Storage temperature		T_{STG}	-65		+175	$^\circ\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J ($^\circ\text{C}$)
DB301F	50	35	50	1.0	-55 to +150
DB302F	100	70	100		
DB303F	200	140	200		
DB304F	400	280	400		
DB305F	600	420	600		
DB306F	800	560	800		
DB307F	1000	700	1000		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=3.0\text{A}$

Rating and characteristic curves (DB301F THRU DB307F)

Fig. 1 Output Current Derating Curve

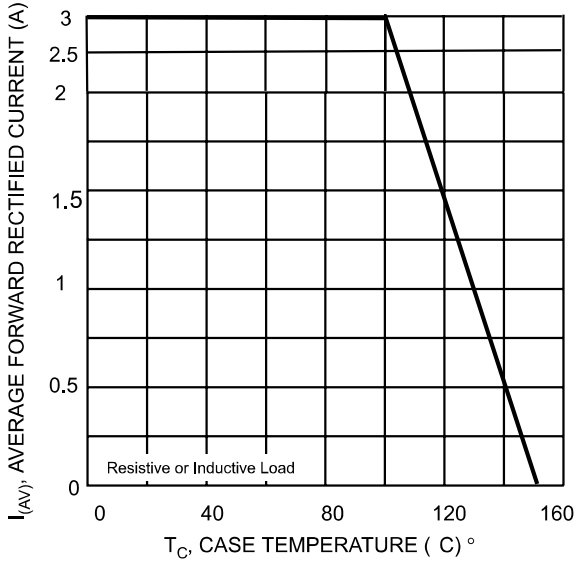


Fig. 2 Typical Forward Characteristics (per leg)

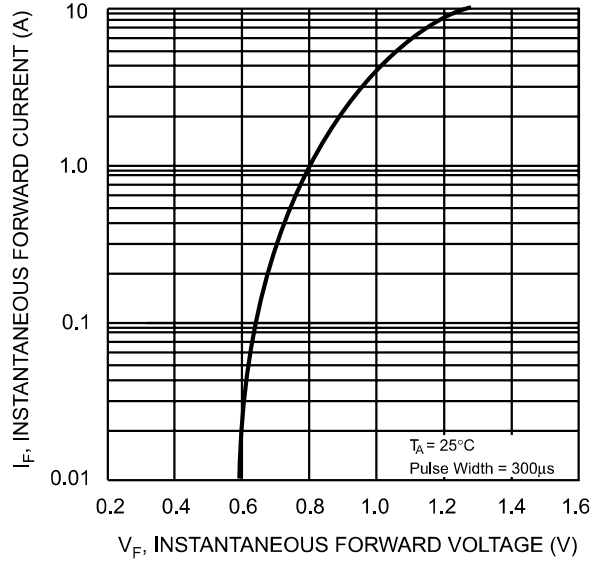


Fig. 3 Maximum Peak Forward Surge Current

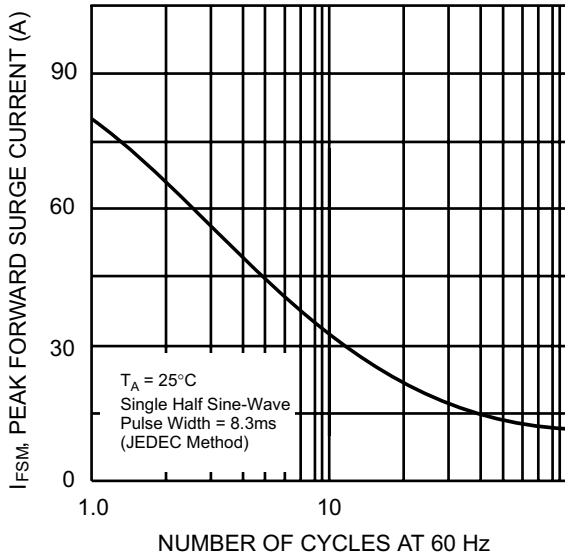
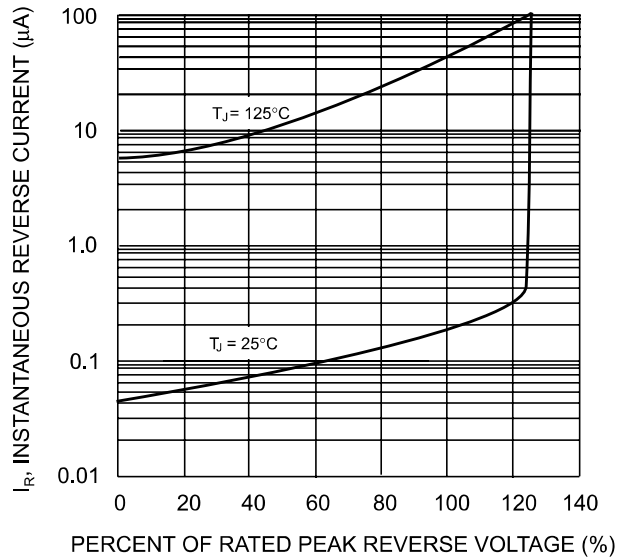
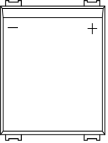
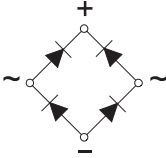


Fig. 4 Typical Reverse Characteristics (per element)



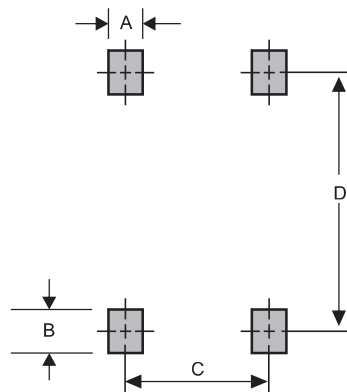
Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
DB301F	DB301F
DB302F	DB302F
DB303F	DB303F
DB304F	DB304F
DB305F	DB305F
DB306F	DB306F
DB307F	DB307F

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C	D
DBF	0.055 (1.40)	0.063 (1.60)	0.197 (5.00)	0.299 (7.60)