

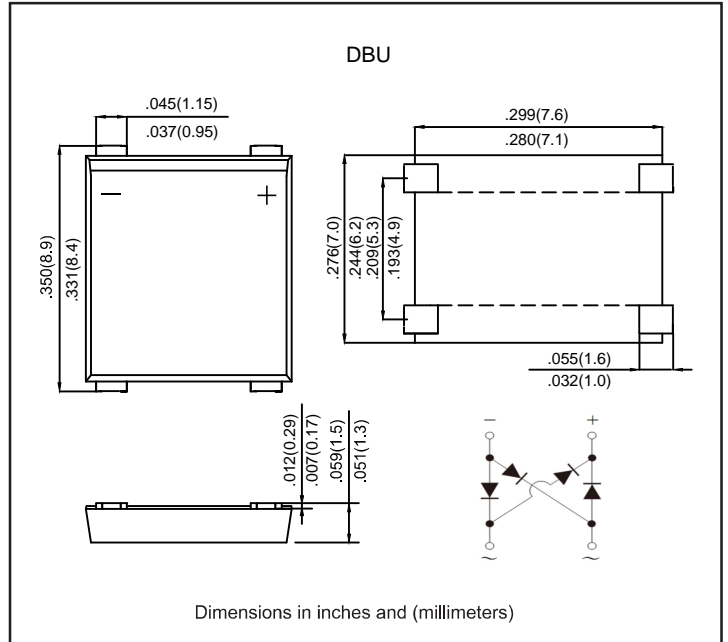
Features

- Surge overload ratings to 95 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, DBU
- 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			4.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			95	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	
Typical Junction Capacitance Per Element	Measured at 1.0MHz and applied reverse voltage of 4.0V DC	C_J		50		pF
Typical thermal resistance	Junction to ambient mounted on P.C.B with 0.5*0.5"(13*13mm) copper pads.	$R_{\theta JA}$		60		$^\circ\text{C}/\text{W}$
Storage temperature		T_{STG}	- 55		+150	$^\circ\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , ($^\circ\text{C}$)
DB401U	50	35	50	1.0	
DB402U	100	70	100		
DB403U	200	140	200		
DB404U	400	280	400		
DB405U	600	420	600		
DB406U	800	560	800		
DB407U	1000	700	1000		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=4.0\text{A}$

Rating and characteristic curves (DB401U THRU DB407U)

Fig.1 Average Rectified Output Current Derating Curve

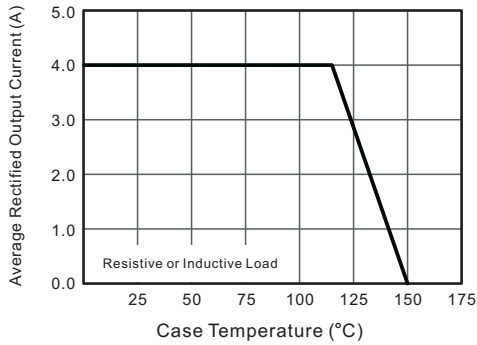


Fig.2 Typical Reverse Characteristics

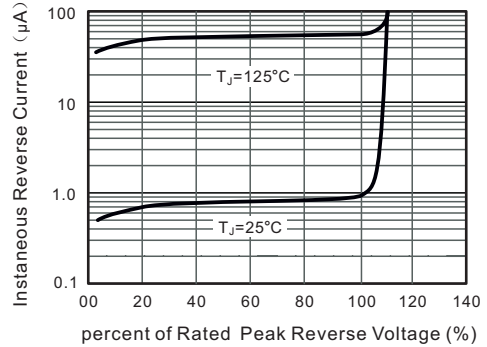


Fig.3 Typical Instantaneous Forward Characteristics

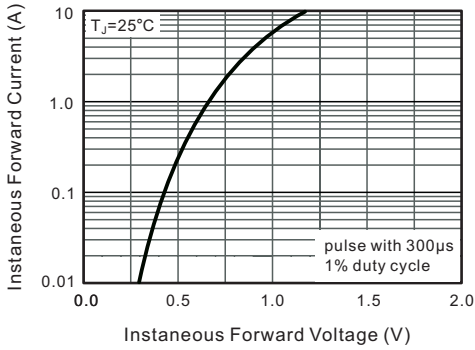


Fig.4 Typical Junction Capacitance

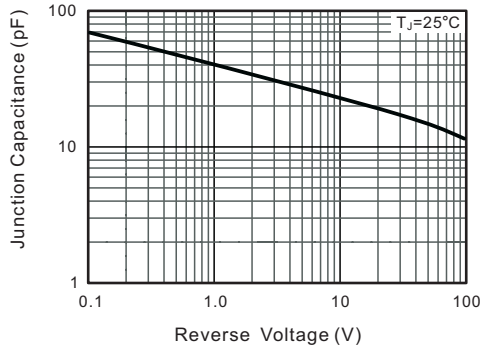


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

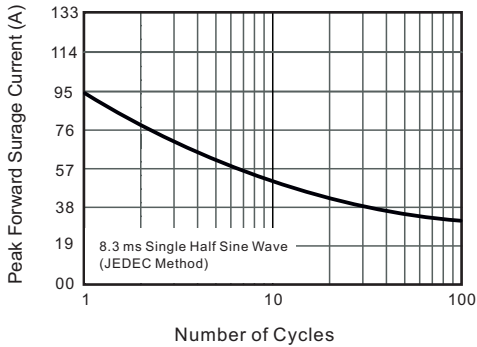
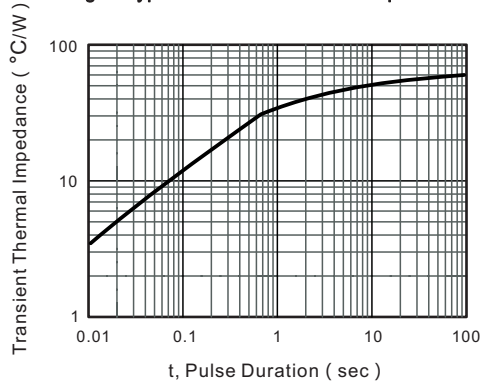
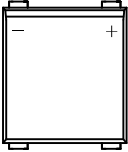
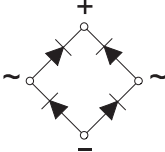


Fig.6- Typical Transient Thermal Impedance



Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
DB401U	DB401U
DB402U	DB402U
DB403U	DB403U
DB404U	DB404U
DB405U	DB405U
DB406U	DB406U
DB407U	DB407U