

## FEATURES

- | The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- | Surge overload ratings to 50 amperes
- | Ideal for printed circuit board application



## MECHANICAL DATA

- | Case: Molded Plastic
- | Polarity: Marked On Body
- | Mounting Position: Any

## APPROVALS

**RoHS** | Compliance with 2011/65/EU

## MAXIMUM RATINGS AND CHARACTERISTICS ( $T_A=25^\circ\text{C}$ )

Parameter	Symbol	DB151S	DB152S	DB153S	DB154S	DB155S	DB156S	DB157S	Unit
Marking		DB151S	DB152S	DB153S	DB154S	DB155S	DB156S	DB157S	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	
Maximum Rms Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum Dc Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Output Current at $T_A=40^\circ\text{C}$	$I_{F(AV)}$				1.5				A
Peak Forward Surge Current Single Sine-wave Superimposed On Rated Load (Jedec Method)	$I_{FSM}$				50				
Maximum Instantaneous Forward Voltage Drop Per Leg at 1.5A	$V_F$				1.0				V
Maximum Dc Reverse Current At Rated DC Blocking Voltage Per Element	$T_A=25^\circ\text{C}$	$I_R$			10				$\mu\text{A}$
	$T_A=125^\circ\text{C}$				500				
Typical Thermal Resistance Per Element (1)	$R_{\theta,JA}$				45				$^\circ\text{C}/\text{W}$
Rating For Fusing ( $T < 8.3\text{ms}$ )	$I^2t$				10				$\text{A}^2\text{sec}$
Typical Junction Capacitance Per Element (2)	$C_J$				25.0				pF
Operating Junction And Storage Temperature Range	$T_J, T_{STG}$				-55 to +150				$^\circ\text{C}$

Notes: (1)Thermal Resistance From Junction To Ambient On P.C. Board Mounting.

(2)Measured At 2.0MHz And Applied Reverse Voltage Of 4.0 Volts.

## CHARACTERISTIC CURVES

Fig. 1- Derating Curve for Output Rectified Current

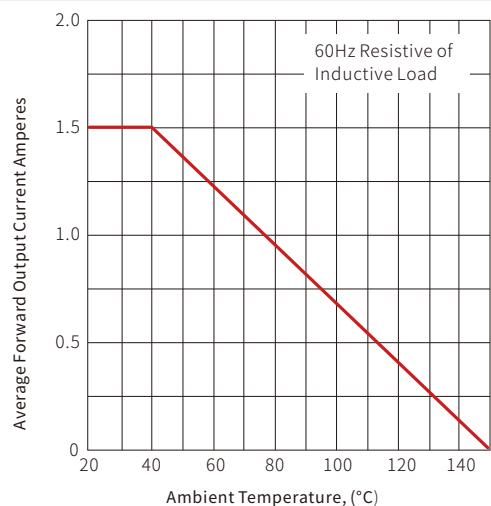


Fig. 2-Maximum Non-repetitive Peak Forward Surge Current

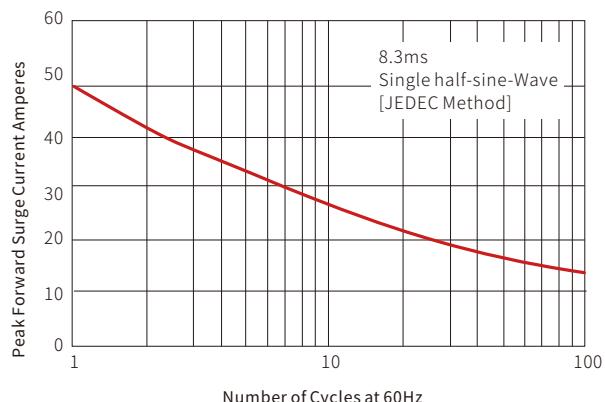


Fig. 3-Typical Instantaneous Forward Characteristics

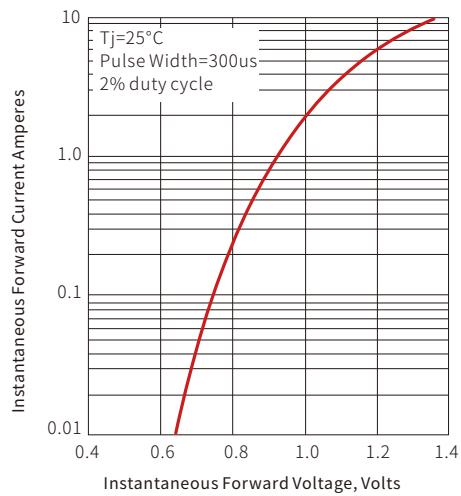
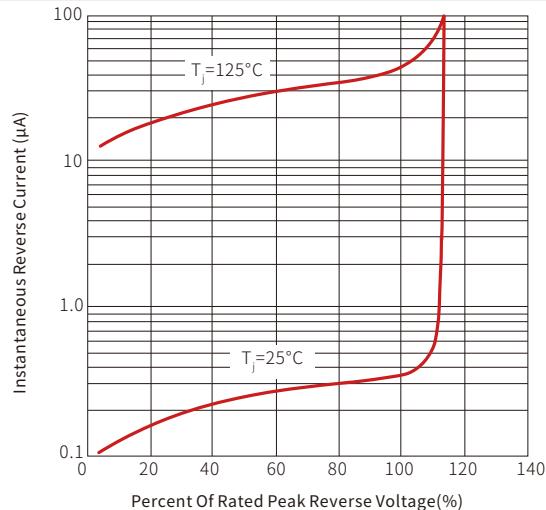
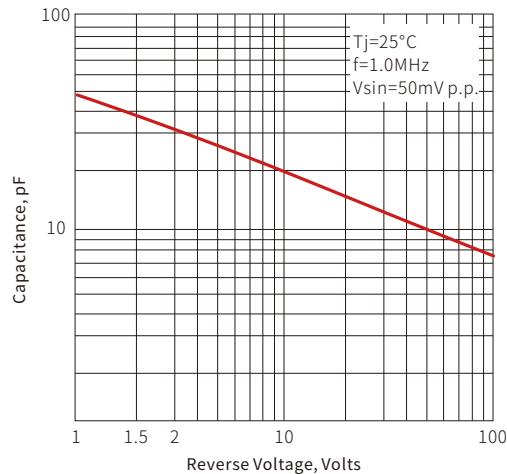


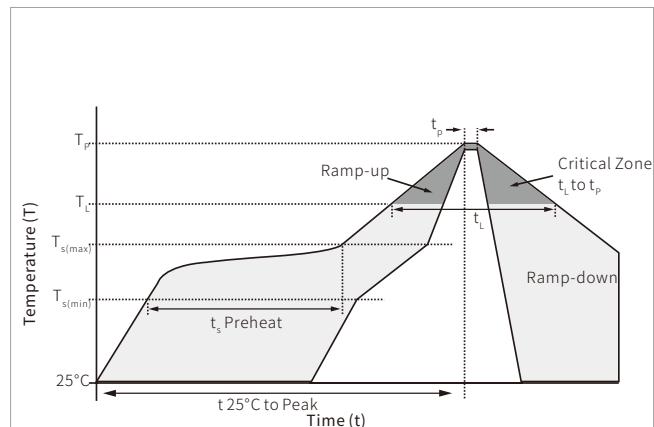
Fig. 4-Typical Revers Characteristics



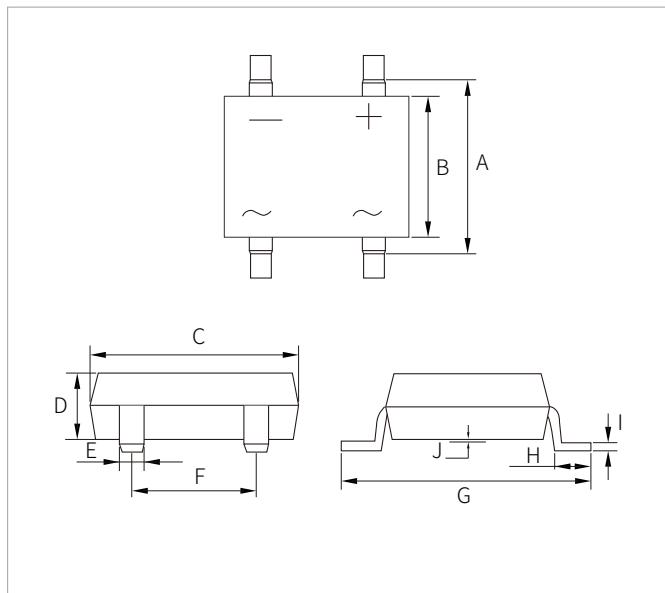
**Fig. 5-Typical Junction Capacitance**


## SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ( $T_{s(min)}$ )	150°C
	Temperature Max ( $T_{s(max)}$ )	200°C
	Time (min to max) ( $t_s$ )	60 – 180 secs
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak	3°C/second max	
$T_{s(max)}$ to $T_L$ - Ramp-up Rate	3°C/second max	
Reflow	Temperature ( $T_L$ ) (Liquidus)	217°C
	Time (min to max) ( $t_L$ )	60 – 150 seconds
Peak Temperature ( $T_p$ )	260°C	
Time within 5°C of actual peak Temperature ( $t_p$ )	20 – 40 seconds	
Ramp-down Rate	6°C/second max	
Time 25°C to peak Temperature ( $T_p$ )	8 minutes max.	
Do not exceed	260°C	



## DB-S PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	7.40	7.90	0.291	0.311
B	6.20	6.50	0.244	0.256
C	7.95	8.35	0.313	0.329
D	2.20	2.50	0.087	0.098
E	0.88	1.14	0.035	0.045
F	5.00	5.20	0.197	0.205
G	10.4Max.		0.409Max.	
H	1.13	1.43	0.044	0.056
I	0.15	0.25	0.006	0.010
J	0.02	0.18	0	0.007

## ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
DB151S-DB157S	DB-S	1500PCS	13"

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