



DONGGUAN NANJING ELECTRONICS LTD.,

DBS Plastic-Encapsulate Bridge Rectifier

DB301S THRU DB307S General Purpose Bridge Rectifier

Features

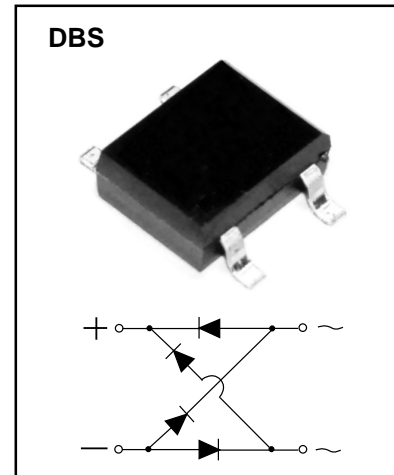
- $I_{F(AV)}$ 3A
- V_{RRM} 50V-1000V
- High surge current capability
- Glass passivated chip

Applications

- General purpose 1 phase Bridge rectifier applications

Marking

- DB30XS
- X : From 01 To 7



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	DB3						
				01S	02S	03S	04S	05S	06S	07S
Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V		35	70	140	280	420	560	700
Average Rectified Output Current	I_o	A	60Hz sine wave, R-load, $T_a=25^\circ\text{C}$	On glass-epoxi substrate		3.0				
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz half sine wave, 1 cycle, $T_j=25^\circ\text{C}$	105						
Current Squared Time	I^2t	A^2S	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	15						
Operation Junction and Storage Temperature Range	T_j, T_{stg}	$^\circ\text{C}$		-55 ~ +150						

Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	$I_{FM}=3.0\text{A}$, Pulse measurement, Rating of per diode	1.0
Peak Reverse Current	I_{RRM}	μA	$V_{RM}=V_{RRM}$, Pulse measurement, Rating of per diode	10
Thermal Resistance	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient, On glass-epoxi substrate	70
	$R_{\theta J-L}$		Between junction and lead	17

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

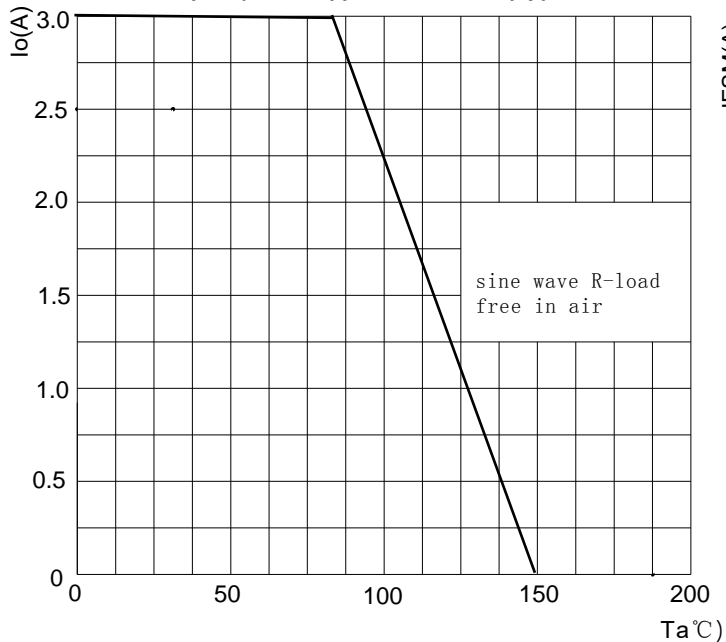


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

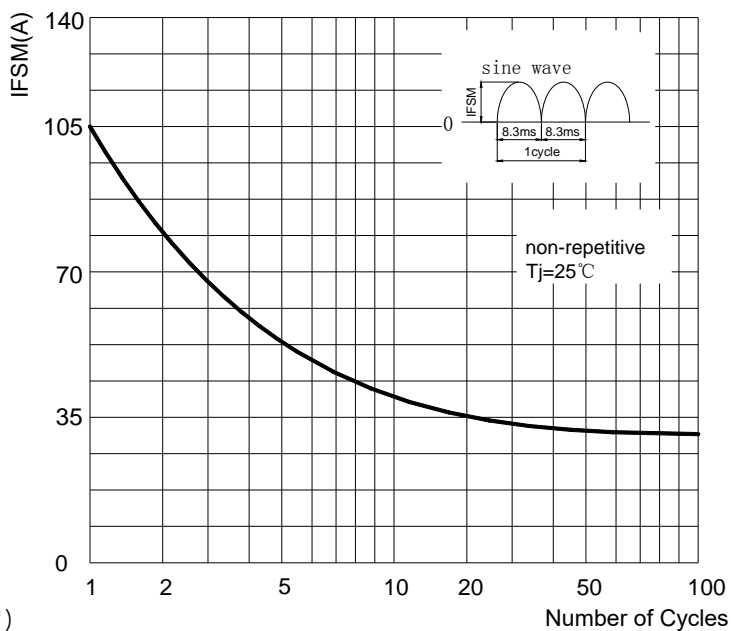


FIG.3: TYPICAL FORWARD CHARACTERISTICS

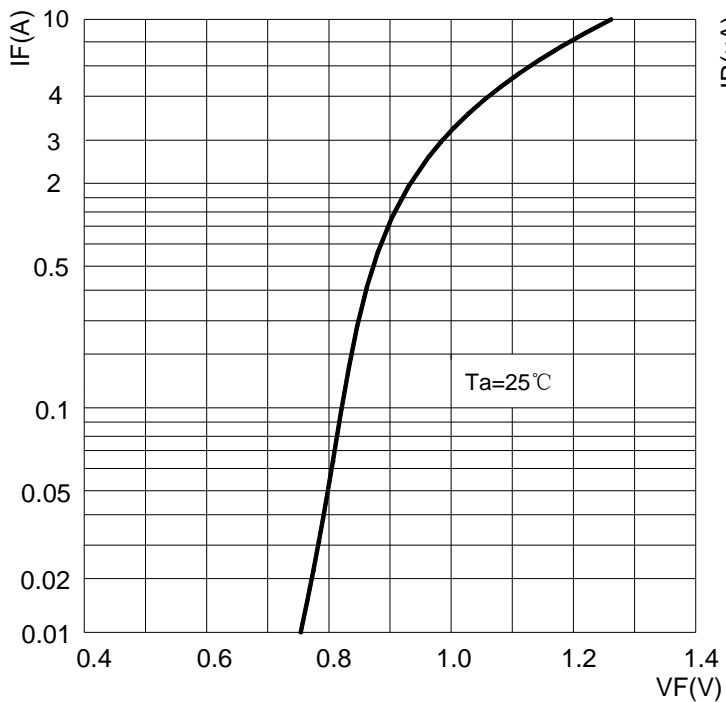
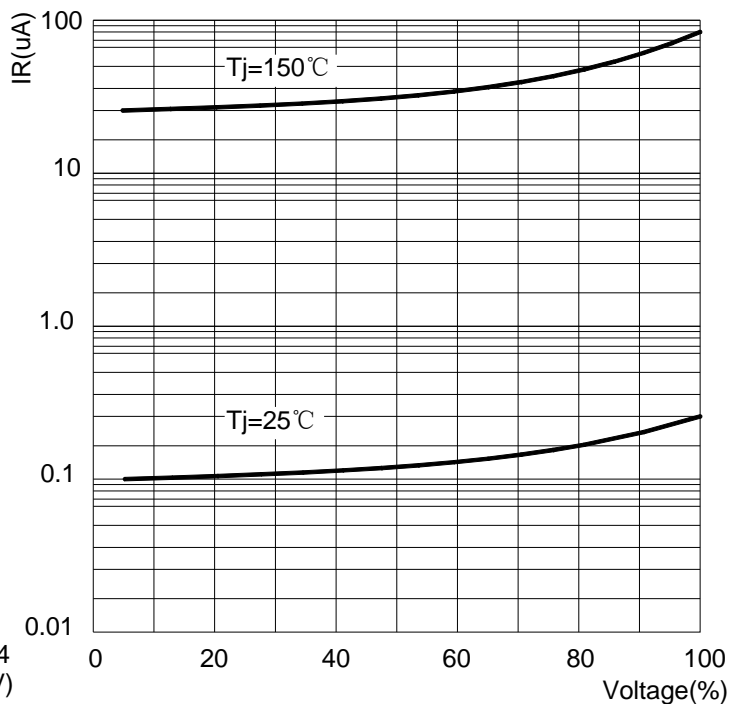
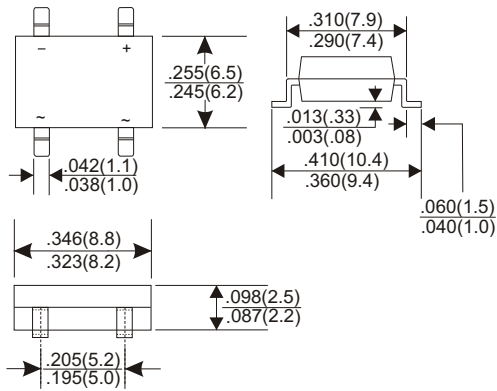


FIG.4: TYPICAL REVERSE CHARACTERISTICS

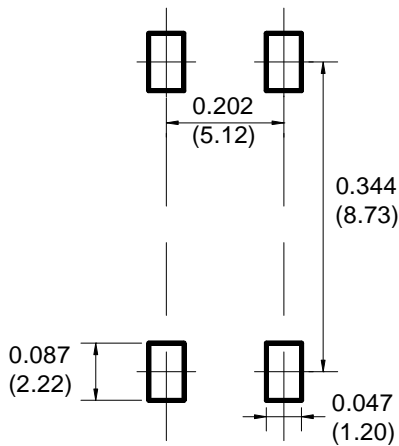


DBS Package Outline Dimensions



Dimensions in inches and (millimeters)

DBS Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.