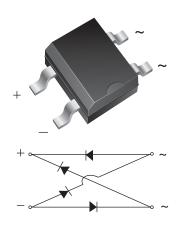
RoHS



Vishay General Semiconductor

Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifier



TO-269AA (MBS)

PRIMARY CHARACTERISTICS					
Package	TO-269AA (MBS)				
I _{F(AV)} 0.5 A					
V _{RRM}	200 V, 400 V, 600 V				
I _{FSM}	30 A				
I _R	5 μΑ				
V _F at I _F = 0.5 A	1.0 V				
T _J max.	150 °C				
Diode variations	Quad				

FEATURES

• UL recognition, file number E54214



- Ideal for automated placement
- · Middle surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C



 Material categorization: For definitions of compliance please see www.vishav.com/doc?99912

TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for power supply, lighting ballaster, battery charger, home appliances, office equipment, and telecommunication applications.

MECHANICAL DATA

Case: TO-269AA (MBS)

Molding compound meets UL 94 V-0 flammability rating Base P/N-E3 - RoHS-compliant, commercial grade

Terminals: Matte tin plated leads, solderable per

J-STD-002 and JESD22-B102

E3 suffix meets JESD 201 class 1A whisker test

Polarity: As marked on body

MAXIMUM RATINGS (T _A = 25 °C unless otherwise noted)						
PARAMETER	SYMBOL	B2S	B4S	B6S	UNIT	
Device marking code		B2	B4	B6		
Maximum repetitive peak reverse voltage	V_{RRM}	200 400 600			V	
Maximum RMS voltage	V_{RMS}	140	280	420	V	
Maximum DC blocking voltage	V_{DC}	200	400	600	V	
Maximum average forward output rectified current on glass-epoxy PCB (fig. 1)	I _{F(AV)}	0.5 (1)			А	
Peak forward surge current 10 ms single half sine-wave superimposed on rated load	I _{FSM}	30			Α	
Rating for fusing (t < 8.3 ms)	l ² t	5.0			A ² s	
Operating junction and storage temperature range	T _J , T _{STG}	- 55 to + 150			°C	

Note

(1) On glass epoxy PCB mounted on 0.05" x 0.05" (1.3 mm x 1.3 mm) pads

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)						
PARAMETER	TEST CONDITIONS	SYMBOL	VALUES	UNIT		
Maximum instantaneous forward voltage per diode	I _F = 0.5 A	V _F	1.0	V		
Maximum DC reverse current at rated DC blocking voltage per diode	T _A = 25 °C	I _R	5.0	μA		
	T _A = 125 °C		100	μA		
Typical junction capacitance per diode	4.0 V, 1 MHz	C_{J}	13	pF		



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THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)						
PARAMETER	SYMBOL B2S B4S B6S		B6S	UNIT		
Typical thermal resistance (1)	$R_{ heta JA}$	90			°C/W	
Typical thermal resistance (*)	$R_{ heta JL}$	40				

Note

⁽¹⁾ On glass epoxy PCB mounted on 0.05" x 0.05" (1.3 mm x 1.3 mm) pads

ORDERING INFORMATION (Example)						
PREFERRED P/N	REFERRED P/N UNIT WEIGHT (g) PREFERRED PACKAGE CODE		BASE QUANTITY	DELIVERY MODE		
B2S-E3/80	0.22	80	3000	13" diameter paper tape and reel		

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

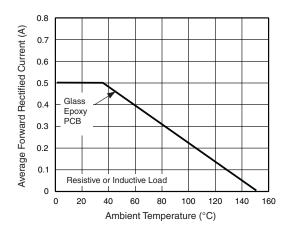


Fig. 1 - Derating Curve for Output Rectified Current

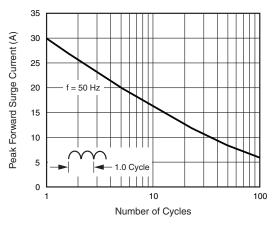


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

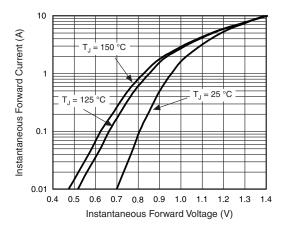


Fig. 3 - Typical Forward Voltage Characteristics Per Diode

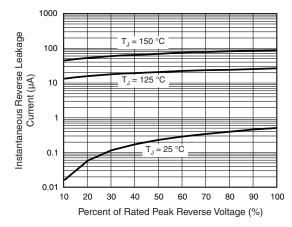


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode



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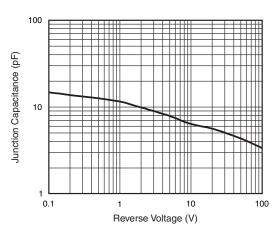
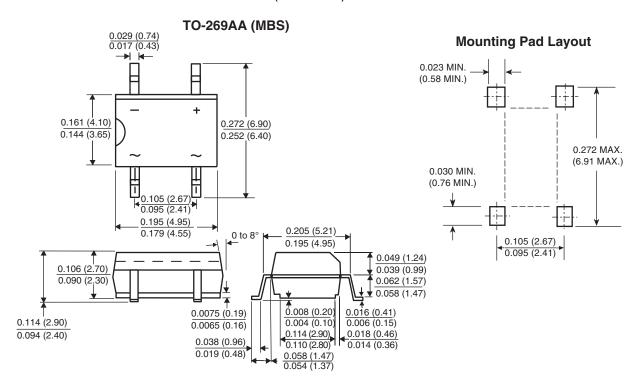


Fig. 5 - Typical Junction Capacitance Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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