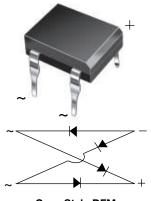
DF005MA, DF01MA, DF02MA, DF04MA, DF06MA, DF08MA, DF10MA



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Vishay General Semiconductor

Miniature Glass Passivated Single-Phase Bridge Rectifiers



Case Style DFM

LINKS TO ADDITIONAL RESOURCES



PRIMARY CHARACTERISTICS						
I _{F(AV)}	1 A					
V _{RRM}	50 V, 100 V, 200 V, 400 V, 600 V, 800 V, 1000 V					
I _{FSM}	30 A					
I _R	5 µA					
V _F at I _F = 1.0 A	1.1 V					
T _J max.	150 °C					
Package	DFM					
Circuit configuration	Quad					

FEATURES

- UL recognition, file number E54214
- Ideal for printed circuit boards
- Applicable for automated insertion
- High surge current capability
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

TYPICAL APPLICATIONS

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

MECHANICAL DATA

Case: DFM

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 JESD 22-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	DF005MA	DF01MA	DF02MA	DF04MA	DF06MA	DF08MA	DF10MA	UNIT
Device marking code		DFA005	DFA01	DFA02	DFA04	DFA06	DFA08	DFA10	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward output rectified current at $T_A = 40 ^{\circ}\text{C}$	I _{F(AV)}	1.0						А	
Peak forward surge current single sine-wave superimposed on rated load	I _{FSM}	30						А	
Rating for fusing (t < 8.3 ms)	l ² t	4.5						A ² s	
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150					°C		

RoHS COMPLIANT DF005MA, DF01MA, DF02MA, DF04MA, DF06MA, DF08MA, DF10MA

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SHAV

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ELECTRICAL CHARACTERISTICS ($T_A = 25 \text{ °C}$ unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	DF005MA	DF01MA	DF02MA	DF04MA	DF06MA	DF08MA	DF10MA	UNIT
Maximum instantaneous forward voltage drop per diode	1.0 A	V _F	1.1				V			
Maximum reverse current at rated DC blocking	T _A = 25 °C	1	5.0					- μΑ		
voltage per diode	T _A = 125 °C	IR	500							
Typical junction capacitance per diode	4.0 V, 1 MHz	CJ	25				pF			

THERMAL CHARACTERISTICS ($T_A = 25 \text{ °C}$ unless otherwise noted)									
PARAMETER	SYMBOL	DL DF005MA DF01MA DF02MA DF04MA DF06MA DF08MA DF10MA						UNIT	
Typical thermal resistance (1)	$R_{\theta JA}$	40							°C/W
Typical thermal resistance (9	$R_{ ext{ heta}JL}$		15						0/11

Note

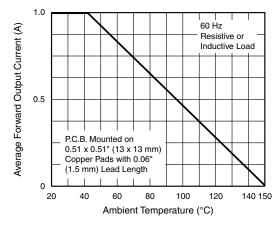
⁽¹⁾ Thermal resistance from junction to ambient and from junction to lead mounted on PCB with 0.5" x 0.5" (13 mm x 13 mm) copper pads

ORDERING INFORMATION (Example)								
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE				
DF06MA-E3/45	0.403	45	50	Tube				

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



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Fig. 1 - Derating Curve Output Rectified Current

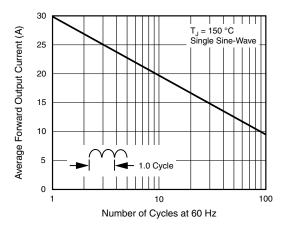


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

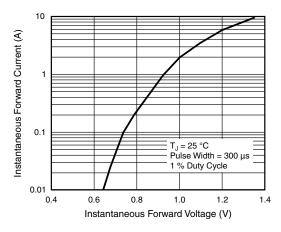


Fig. 3 - Typical Forward Characteristics Per Diode

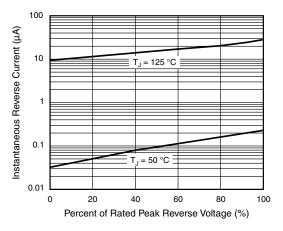


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

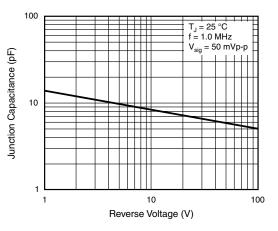


Fig. 5 - Typical Junction Capacitance Per Diode

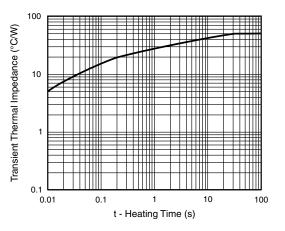


Fig. 6 - Typical Transient Thermal Impedance Per Diode

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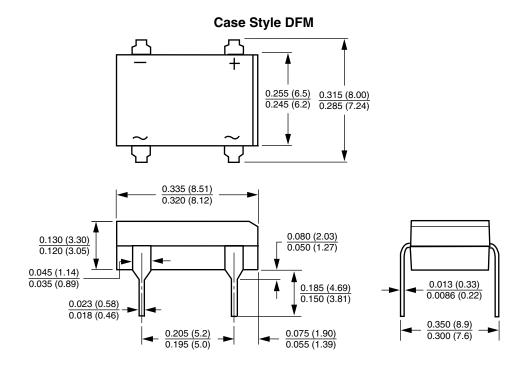
Document Number: 88572

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PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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1