DF005M - DF10M

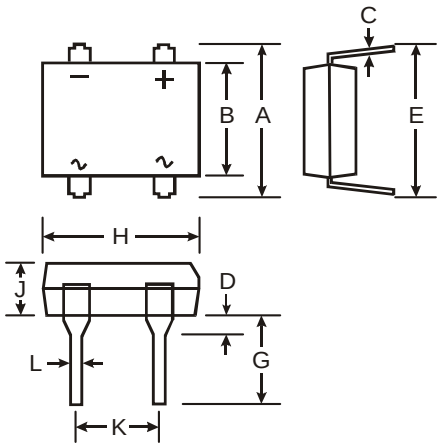
1.0A GLASS PASSIVATED BRIDGE RECTIFIERS

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 50A Peak
- Designed for Printed Circuit Board Applications
- UL Listed Under Recognized Component Index, File Number E94661
- **Lead Free Finish, RoHS Compliant (Date Code 0532+) (Note 3)**

Mechanical Data

- Case: DF-M
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish - Tin. Solder Plated Leads, Solderable per MIL-STD-202, Method 208 e3
- Polarity: As Marked on Case
- Marking Information: Type Number, See Page 3
- Weight: 0.38 grams (approximate)



DF-M		
Dim	**Min**	**Max**
A	7.40	7.90
B	6.20	6.50
C	0.22	0.30
D	1.27	2.03
E	7.60	8.90
G	3.81	4.69
H	8.13	8.51
J	2.40	3.40
K	5.00	5.20
L	0.46	0.58
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

@T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	DF 005M	DF 01M	DF 02M	DF 04M	DF 06M	DF 08M	DF 10M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RMM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	580	700	V
Average Rectified Output Current @ T_A = 40°C	I_O	1.0							A
Non-Repetitive Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	50							A
Forward Voltage (per element) @ I_F = 1.0 A	V_{FM}	1.1							V
Peak Reverse Current @ T_A = 25°C at Rated DC Blocking Voltage (per element) @ T_A = 125°C	I_{RM}	10 500							μA
I^2t Rating for Fusing (t<8.3ms)	I^2t	10.4							A^2s
Typical Total Capacitance per element (Note 1)	C_T	25							pF
Typical Thermal Resistance, Junction to Ambient (Note 2)	$R_{\theta JA}$	40							°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							°C

Notes:
1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal Resistance, junction to ambient, measured on PC board with 5.0mm^2 (0.03mm thick) land areas.
3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see *EU Directive Annex Notes 5 and 7.*

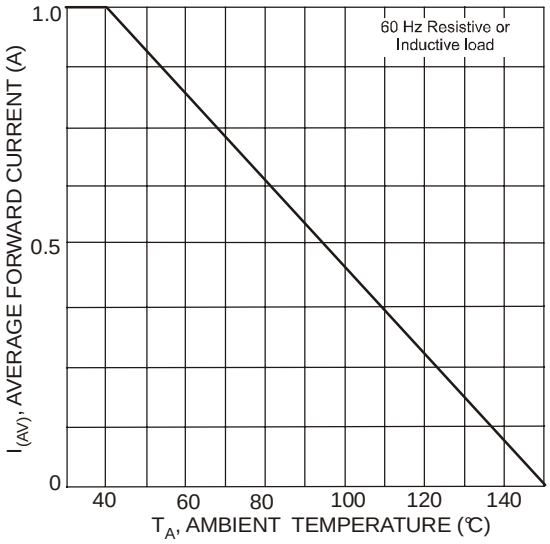


Fig. 1 Output Current Derating Curve

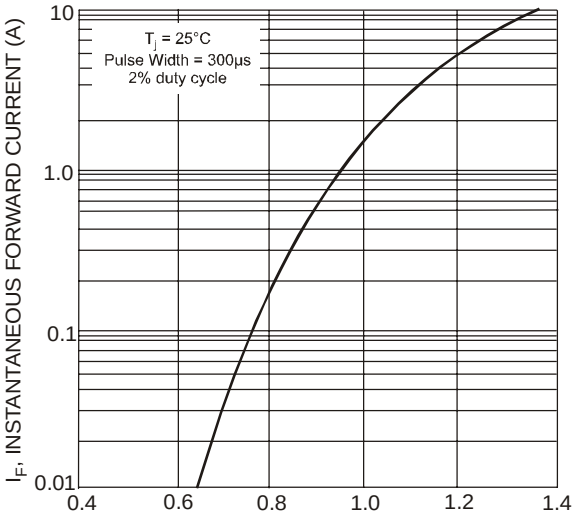


Fig. 2 Typical Forward Characteristics (per element)

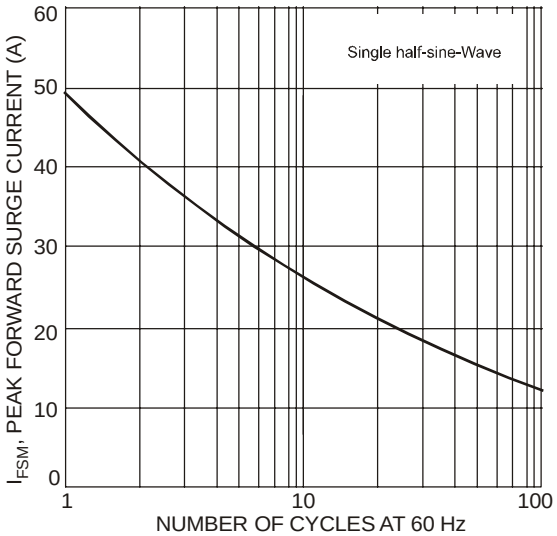


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

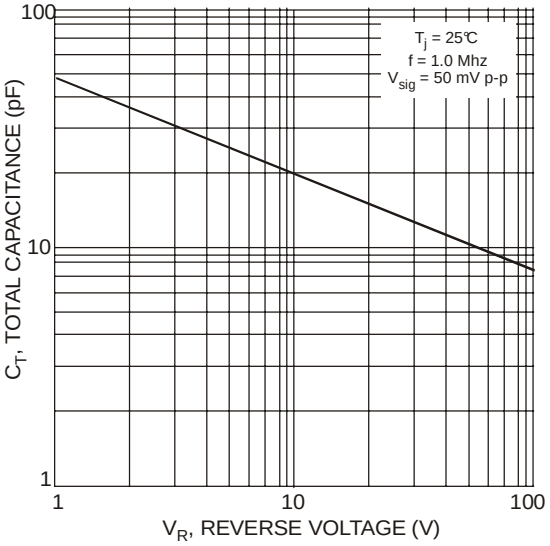


Fig. 4 Typical Total Capacitance (per element)

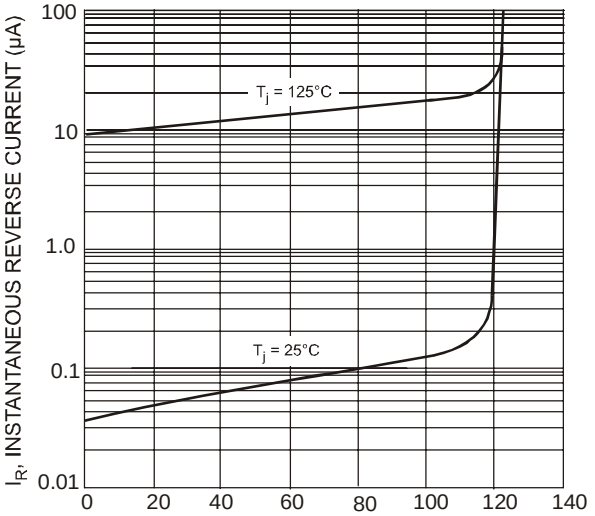


Fig. 5 Typ Reverse Characteristics (per element)

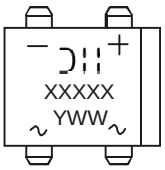
Ordering Information (Note 4)

Device*	Packaging	Shipping
DFxM	DF-M	Tube

* x = Device type, e.g. DF005M or DF10M, etc.

Notes: 4. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



= Manufacturers' code marking
XXXXX = Product type marking code, ex: DF10M
YWW = Date code marking
Y = Last digit of year ex: 2 for 2002
WW = Week code 01 to 52