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# **DF005M - DF10M**

### **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+)

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

# **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 @3
- Polarity: As Marked on Case
- Marking Information: Type Number, See Page 3
- Weight: 0.38 grams (approximate)

# **Maximum Ratings and Electrical Characteristics**

@TA = 25°C unless otherwise specified

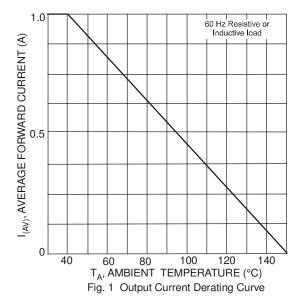
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

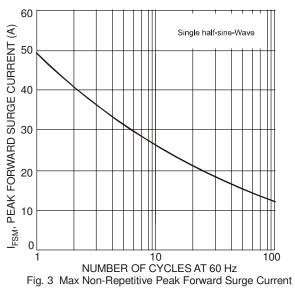
Characteristic		Symbol	DF 005M	DF 01M	DF 02M	DF 04M	DF 06M	DF 08M	DF 10M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V <sub>RMM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	٧
RMS Reverse Voltage		$V_{RMS}$	35	70	140	280	420	580	700	٧
Average Rectified Output Current	@ T <sub>A</sub> = 40°C	lo	1.0				Α			
Non-Repetitive Peak Forward Surge Current, 8.3 m Single Half Sine-Wave Superimposed on Rated Lo		I <sub>FSM</sub>				50				А
Forward Voltage (per element)	@ I <sub>F</sub> = 1.0 A	V <sub>FM</sub>	1.1				٧			
Peak Reverse Current at Rated DC Blocking Voltage (per element)	@ T <sub>A</sub> = 25°C @ T <sub>A</sub> = 125°C	I <sub>RM</sub>	10 500				μΑ			
I <sup>2</sup> t Rating for Fusing (t<8.3ms)		l²t	10.4			A <sup>2</sup> s				
Typical Total Capacitance per element	(Note 1)	Ст	25				pF			
Typical Thermal Resistance, Junction to Ambient	(Note 2)	$R_{\theta JA}$	40				°C/W			
Operating and Storage Temperature Range		T <sub>j</sub> , T <sub>STG</sub>			-6	65 to +15	50			°C

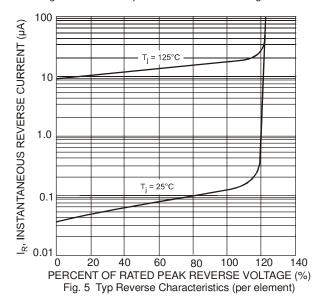
Notes:

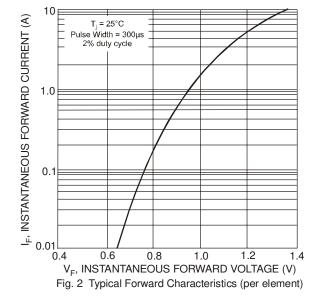
- 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 2. Thermal Resistance, junction to ambient, measured on PC board with 5.0mm² (0.03mm thick) land areas.
- 3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see EU Directive Annex Notes 5 and 7.











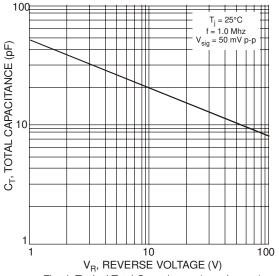


Fig. 4 Typical Total Capacitance (per element)



## Ordering Information (Note 4)

Device*	Packaging	Shipping
DFxM	DF-M	Tube

<sup>\*</sup> 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**



III = 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

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