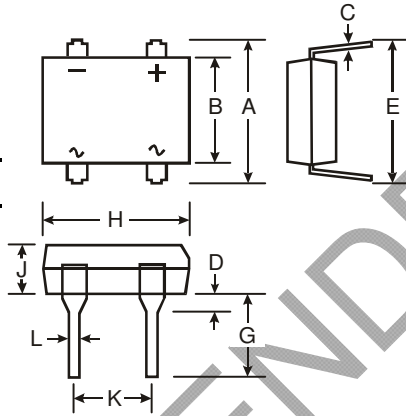


## Features

- 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. Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Marking: Type Number
- 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
<b>All Dimensions in mm</b>		

## Maximum Ratings and Electrical Characteristics

@T<sub>A</sub> = 25°C unless otherwise specified

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

Characteristic	Symbol	DF 15005M	DF 1501M	DF 1502M	DF 1504M	DF 1506M	DF 1508M	DF 1510M	Unit	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>									
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V	
DC Blocking Voltage	V <sub>R</sub>									
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V	
Average Rectified Output Current	I <sub>O</sub>					1.5				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>					50				A
Forward Voltage (per element)	V <sub>FM</sub>					1.1				V
Peak Reverse Current	I <sub>RM</sub>					10				μA
at Rated DC Blocking Voltage						500				
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t					10.4				A <sup>2</sup> s
Typical Total Capacitance (Note 2)	C <sub>T</sub>					25				pF
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>					40				°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>					-65 to +150				°C

- Notes:
1. Thermal resistance from junction to ambient mounted on PC board with 13 x 13mm (0.03mm thick) land areas.
  2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
  3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see *EU Directive Annex Notes 5 and 7*.

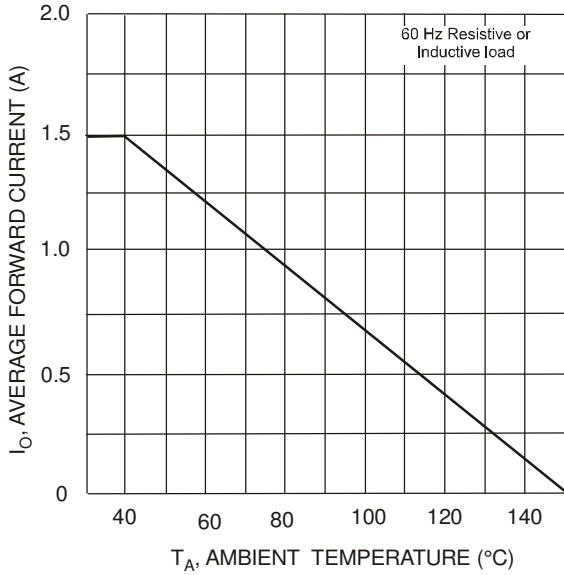


Fig. 1 Output Current Derating Curve

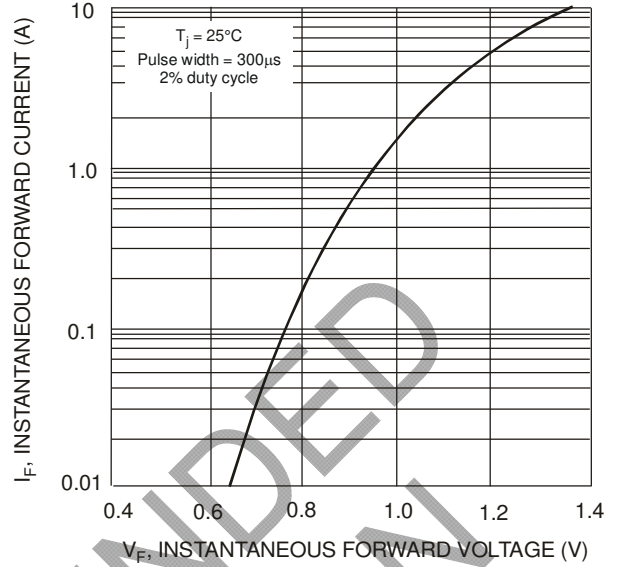


Fig. 2 Typical Forward Characteristics (per element)

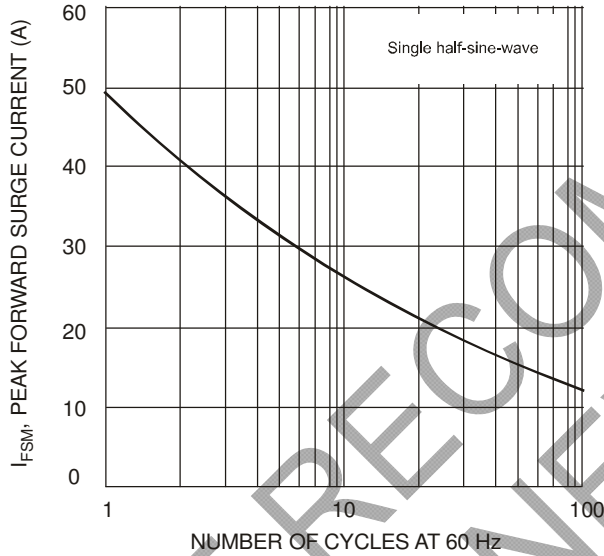


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

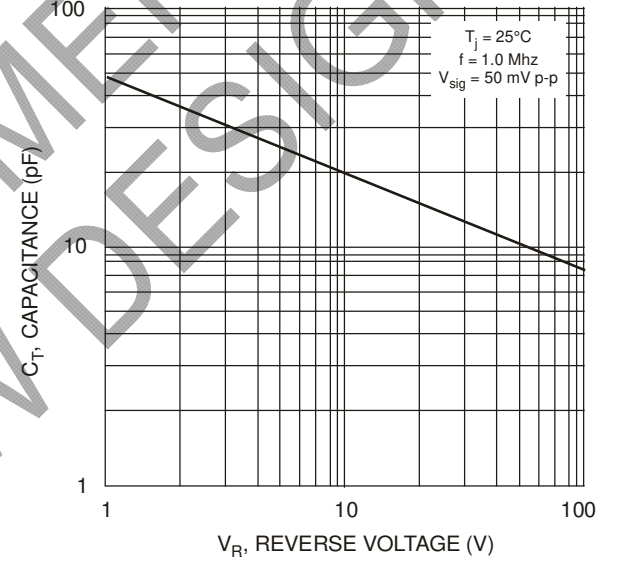


Fig. 4 Typical Total Capacitance (per element)

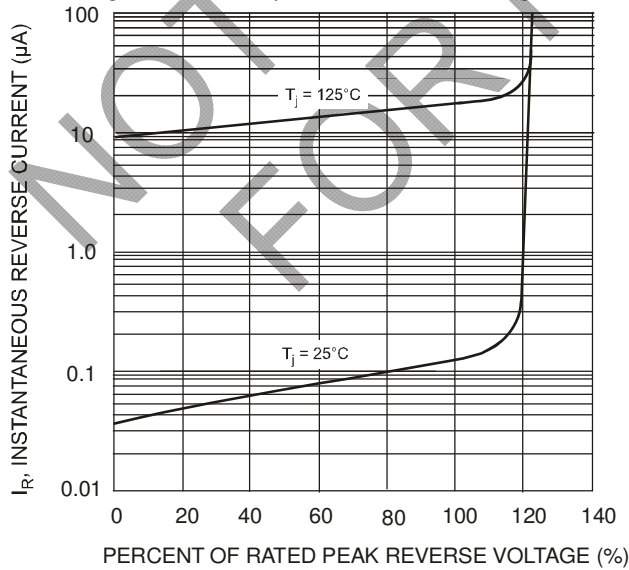


Fig. 5 Typical Reverse Characteristics (per element)

**Ordering Information** (Note 4)

Device	Packaging	Shipping
DF15xxM	DF-M	50 per Tube

Notes: 4. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

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