

# DF15005S - DF1510S

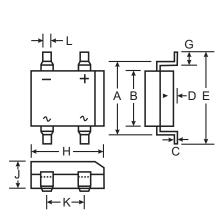
# 1.5A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

### Features

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

#### **Mechanical Data**

- Case: DF-S
- 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 (23)
- Polarity: As Marked on Case
- Marking: Type Number, See Page 3
- Weight: 0.38 grams (approximate)



DF-S						
Dim	Min	Max				
Α	7.40	7.90				
В	6.20	6.50				
С	0.22	0.30				
D	0.076	0.33				
E		10.40				
G	1.02	1.53				
Н	8.13	8.51				
J	2.40	3.40				
к	5.00	5.20				
L	1.00	1.20				
All Dimensions in mm						

## Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

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

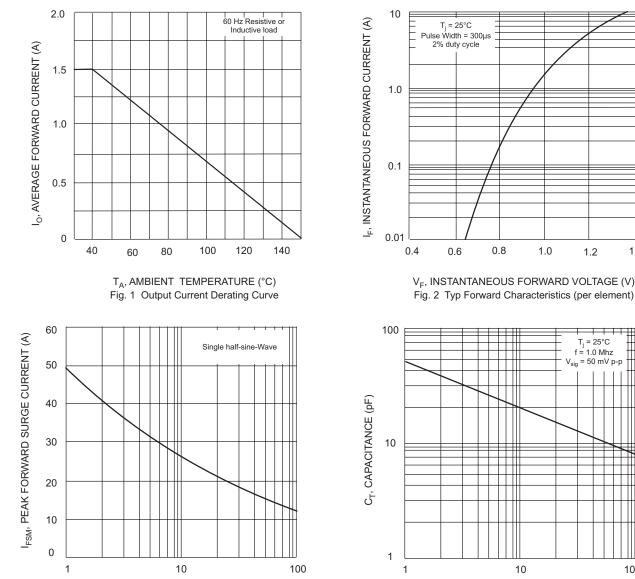
Characteristic	Symbol	DF 15005S	DF 1501S	DF 1502S	DF 1504S	DF 1506S	DF 1508S	DF 1510S	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	580	700	V
Average Forward Rectified Current @ $T_A = 40^{\circ}C$		1.5						Α	
Non-Repetitive Peak Forward Surge Current, 8.3 ms single half-sine-wave superimposed on rated load		50					А		
Forward Voltage (per element) $@$ I <sub>F</sub> = 1.5A	V <sub>FM</sub>	1.1					V		
Peak Reverse Current at rated@ $T_A = 25^{\circ}C$ DC blocking voltage (per element)@ $T_A = 125^{\circ}C$		10 500					μA		
I <sup>2</sup> t Rating for Fusing (t<8.3ms)		10.4					A <sup>2</sup> s		
Typical Total Capacitance per element (Note 1)		25				pF			
Typical Thermal Resistance, Junction to Ambient (Note 2)		40				°C/W			
Operating and Storage Temperature Range		-65 to +150					°C		

Notes: 1. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V DC.

2. Thermal resistance, junction to ambient, measured on PC board with 5.0mm<sup>2</sup> (0.03mm thick) land areas.

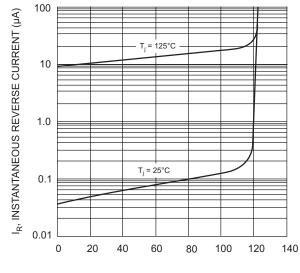
3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.





NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Peak Forward Surge Current

V<sub>R</sub>, REVERSE VOLTAGE (V) Fig. 4 Typ Total Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typ Reverse Characteristics (per element)

1.4

100

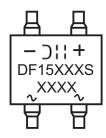


#### Ordering Information (Note 4)

Device	Packaging	Shipping
DF15XXXS-T	DF-S	1500/Tape & Reel
DF15XXXS	DF-S	50 per Tube

Notes: 4. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

### Marking Information



D11= Manufacturers' code marking
 DF15XXXS = Product type marking code, ex: DF1510S
 YWW = Date code marking
 Y = Last digit of year ex: 2 for 2002
 WW = Week code 01 to 52

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