

**1.0A SURFACE-MOUNT STANDARD RECOVERY BRIDGE RECTIFIER**

**Product Summary**

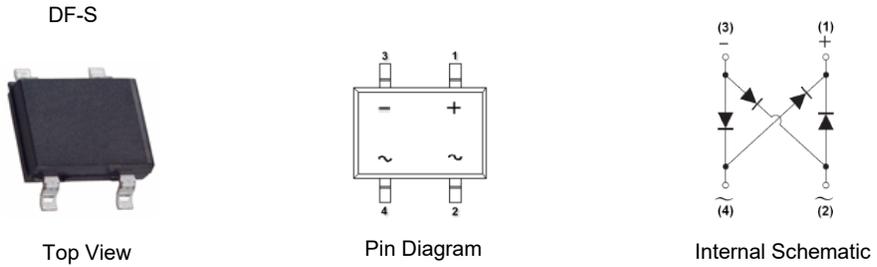
V <sub>RRM</sub> (V)	I <sub>F</sub> (A)	V <sub>F</sub> Max (V)	I <sub>R</sub> Max (µA)
50/100/200/ 400/600/800/ 1000	1	1.1	10

**Features**

- Glass Passivated Die Construction
- Low-Forward Voltage Drop, High Current Capability
- Surge Overload Rating to 50A Peak
- Designed for Surface-Mount Application
- UL Listed Under Recognized Component Index, File Number E364304
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](https://www.diodes.com/quality/product-definitions/) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

**Mechanical Data**

- Package: DF-S
- Package Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish – Tin. Solderable per MIL-STD-202, Method 208 Ⓔ3
- Polarity: As Marked on Package
- Weight: 0.38 grams (Approximate)

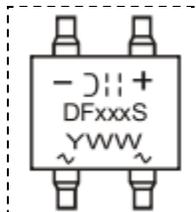


**Ordering Information** (Note 4)

Orderable Part Number	Package	Packing	
		Qty.	Carrier
DFxS	DF-S	50	Tube
DFxS-T	DF-S	1500	Tape & Reel, 13-inch

- Notes:
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
  2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
  3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
  4. For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

**Marking Information**



D||| = Manufacturer's Code Marking  
 DFxxxS = Product Type Marking Code (ex: DF10S)  
 YWW = Date Code Marking  
 Y = Last Digit of Year (ex: 6 for 2026)  
 WW = Week Code (01 to 53)

### Maximum Ratings (@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 005S	DF 01S	DF 02S	DF 04S	DF 06S	DF 08S	DF 10S	Unit
Peak Repetitive Reverse Voltage	V <sub>RMM</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>RMS</sub>	35	70	140	280	420	560	700	V
Average Forward Rectified Current @ T <sub>A</sub> = +40°C	I <sub>o</sub>	1.0							A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load	I <sub>FSM</sub>	50							A

### Thermal Characteristics

Characteristic	Symbol	DF 005S	DF 01S	DF 02S	DF 04S	DF 06S	DF 08S	DF 10S	Unit
Typical Thermal Resistance, Junction to Ambient (Note 5)	R <sub>θJA</sub>	40							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

### Electrical Characteristics (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	DF 005S	DF 01S	DF 02S	DF 04S	DF 06S	DF 08S	DF 10S	Unit
Forward Voltage (Per Element) @ I <sub>F</sub> = 1.0A	V <sub>FM</sub>	1.1							V
Peak Reverse Current at Rated @ T <sub>A</sub> = +25°C	I <sub>RM</sub>	10							μA
DC Blocking Voltage (Per Element) @ T <sub>A</sub> = +125°C		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 (Per Element) (Note 6)	C <sub>T</sub>	25							pF

Notes: 5. Thermal resistance, junction to ambient, measured on PC board with 5.0mm<sup>2</sup> (0.03mm thick) land areas.  
6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

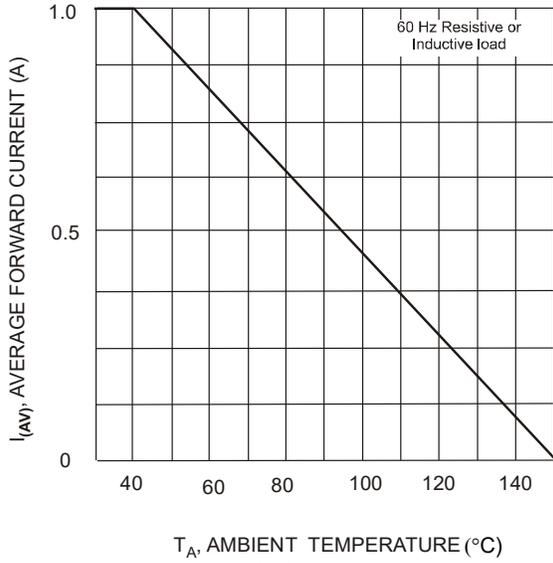


Fig. 1 Output Current Derating Curve

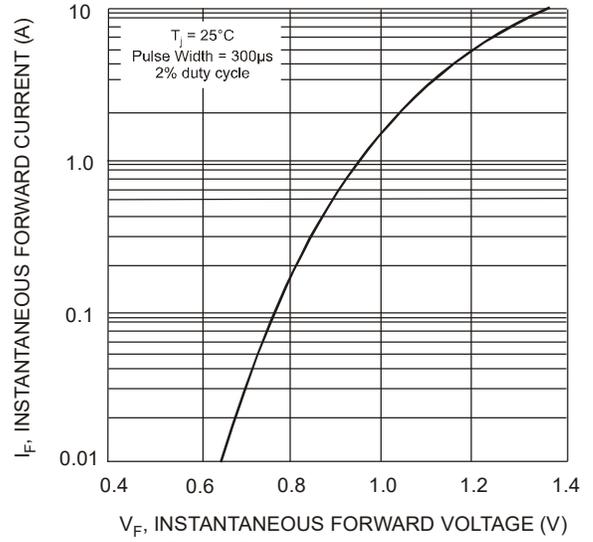


Fig. 2 Typical Forward Characteristics (per element)

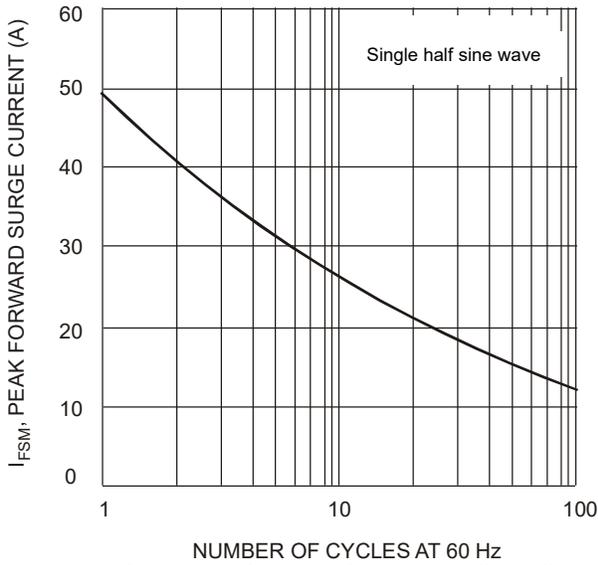


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

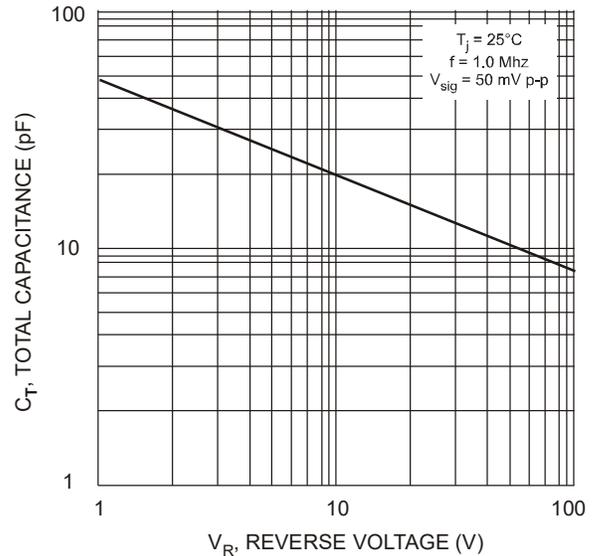


Fig. 4 Typical Total Capacitance (per element)

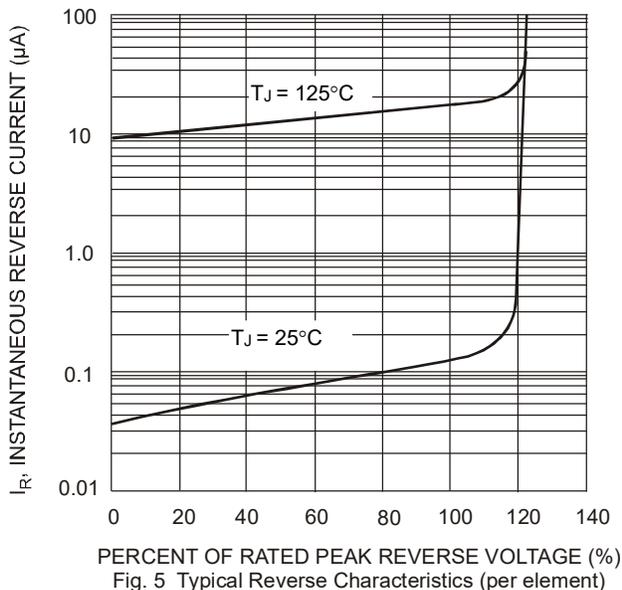
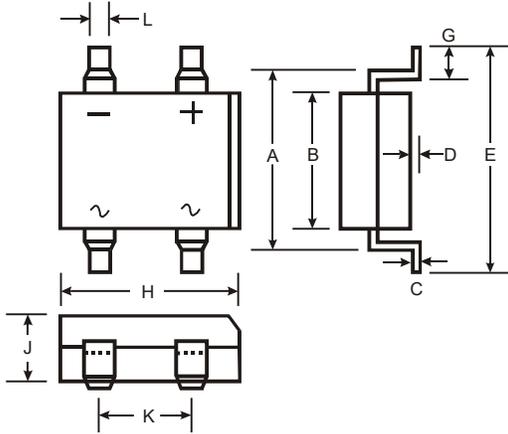


Fig. 5 Typical Reverse Characteristics (per element)

**Package Outline Dimensions**

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

DF-S

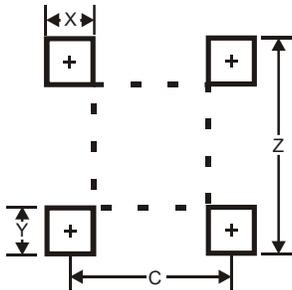


DF-S		
Dim	Min	Max
A	7.40	7.90
B	6.20	6.50
C	0.22	0.30
D	0.076	0.33
E	-	10.40
G	1.02	1.53
H	8.13	8.51
J	2.40	2.60
K	5.00	5.20
L	1.00	1.20
All Dimensions in mm		

**Suggested Pad Layout**

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

DF-S



Dimensions	DF-S
Z	10.26
X	1.2
Y	1.52
C	5.2

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