

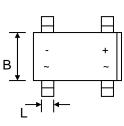
# **DF005S – DF10S**

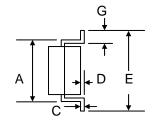


# 1.0A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

## **Features**

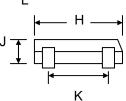
- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Designed for Surface Mount Application
- Plastic Material UL Recognition Flammability Classification 94V-O





# Mechanical Data ■ Case: DF-S, Molded Plastic

- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on CaseWeight: 0.38 grams (approx.)
- Mounting Position: AnyMarking: Type Number
- Lead Free: For RoHS / Lead Free Version,
   Add "-LF" Suffix to Part Number, See Page 4



DF-S					
Dim	Min	Max			
Α	7.80	8.50			
В	6.20	6.50			
С	0.20	0.35			
D	0.076	0.33			
Е	1	10.40			
G	1.02	1.53			
Н	8.13	8.80			
J	2.20	2.50			
K	5.00	5.20			
L	1.00	1.20			
All Dimensions in mm					

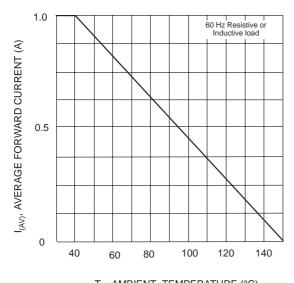
# Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

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

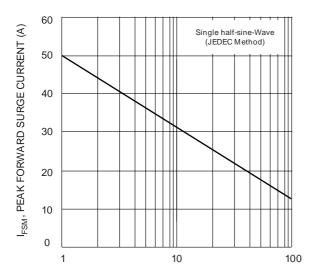
Characteristic	Symbol	DF 005S	DF 01S	DF 02S	DF 04S	DF 06S	DF 08S	DF 10S	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>A</sub> = 40°C	lo	1.0					А		
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	Іғѕм	50						А	
Forward Voltage per element $@I_F = 1.0A$	VFM				1.1				V
Peak Reverse Current	lгм				5.0 500				μΑ
Typical Junction Capacitance per element (Note 1)	Cj				25				pF
Typical Thermal Resistance per leg (Note 2)	R JA R JL	40 15						°C/W	
Operating and Storage Temperature Range	Тj, Tsтg			-(	65 to +15	0			°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

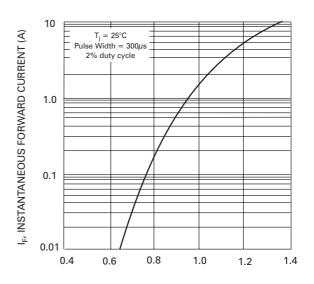
2. Mounted on PC board with 13mm<sup>2</sup> copper pad.



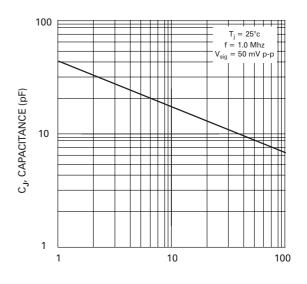
T<sub>A</sub>, AMBIENT TEMPERATURE (°C) Fig. 1 Output Current Derating Curve



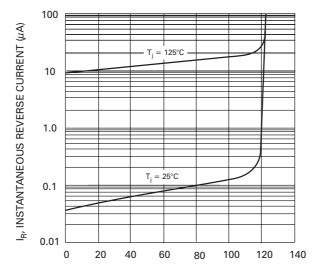
NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Peak Forward Surge Current



V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typ Forward Characteristics (per element)



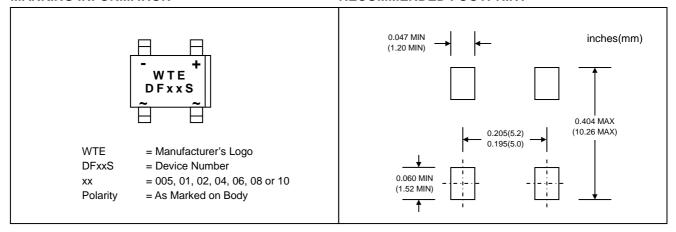
V<sub>R</sub>, REVERSE VOLTAGE (V)
Fig. 4 Typ Junction Capacitance (per element)



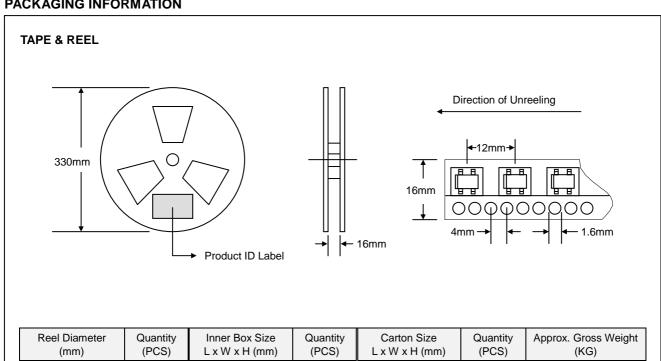
PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typ Reverse Characteristics (per element)

# **MARKING INFORMATION**

# **RECOMMENDED FOOTPRINT**



## **PACKAGING INFORMATION**



Reel Diameter	Quantity	Inner Box Size	Quantity	Carton Size	Quantity	Approx. Gross Weight (KG)
(mm)	(PCS)	L x W x H (mm)	(PCS)	L x W x H (mm)	(PCS)	
330	1,500	340 x 337 x 45	3,000	370 x 370 x 420	24,000	17.0

Note: 1. Anti-static or paper reel, blue or white color.

2. Components are packed in accordance with EIA standard 481-1 and 481-2.

#### **ORDERING INFORMATION**

Product No.	Package Type	Shipping Quantity
DF005S-T3	DIL Bridge SMD	1500/Tape & Reel
DF01S-T3	DIL Bridge SMD	1500/Tape & Reel
DF02S-T3	DIL Bridge SMD	1500/Tape & Reel
DF04S-T3	DIL Bridge SMD	1500/Tape & Reel
DF06S-T3	DIL Bridge SMD	1500/Tape & Reel
DF08S-T3	DIL Bridge SMD	1500/Tape & Reel
DF10S-T3	DIL Bridge SMD	1500/Tape & Reel

- Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
- To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, DF005S-T3-LF.

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**WARNING**: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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