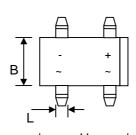


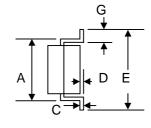
# **DF150S - DF1510S**

### 1.5A 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: Molded Plastic

 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: As Marked on Case

Weight: 0.38 grams (approx.)

Mounting Position: Any

Marking: Type Number

\*Low profile models (J =  $2.20 \sim 2.50$ mm) are available.

Please consult factory.

DF-S						
Dim	Min	Max				
Α	7.40	7.90				
В	6.20	6.50				
С	0.009	0.25				
D	0.076	0.33				
Е	_	10.40				
G	1.02	1.53				
Н	8.13	8.51				
J*	3.20	3.40				
K	5.0	5.20				
L	1.00	1.20				
All Dimensions in mm						

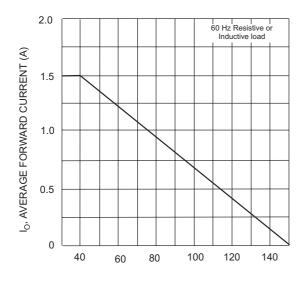
## Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

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

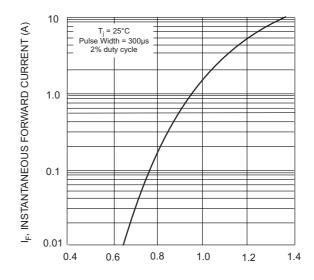
Characteristic	Symbol	DF 150S	DF 151S	DF 152S	DF 154S	DF 156S	DF 158S	DF 1510S	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>A</sub> = 40°C	lo	1.5					Α		
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	50					А		
Forward Voltage per element $@I_F = 1.5A$	VFM				1.1				V
Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 125^{\circ}C$	IRM	10 500					μΑ		
Typical Junction Capacitance per element (Note 1)	Cj	25				pF			
Typical Thermal Resistance (Note 2)	$R_{\theta}$ JA	74					K/W		
Operating and Storage Temperature Range	Тј, Тѕтс	-65 to +150				°C			

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

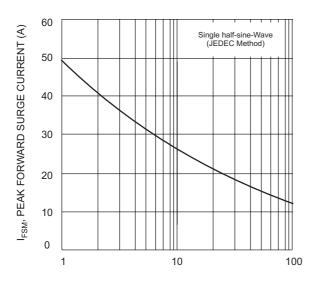
2. Thermal resistance junction to ambient mounted on PC board with 5.0mm² (0.03mm thick) land areas.



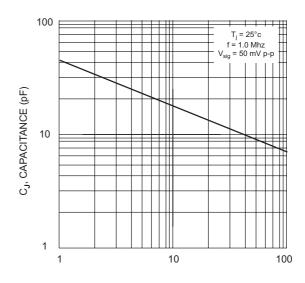
T<sub>A</sub>, AMBIENT TEMPERATURE (°C) Fig. 1 Output Current Derating Curve



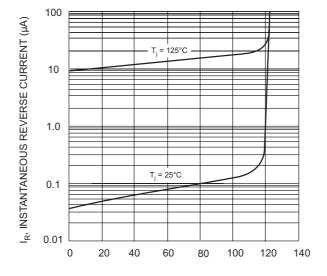
V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typ Forward Characteristics (per element)



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



 $\label{eq:VR} {\rm V_R,\,REVERSE\,\,VOLTAGE\,\,(V)}$  Fig. 4 Typ Junction Capacitance (per element)



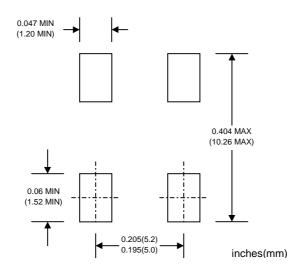
PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typ Reverse Characteristics (per element)

#### **ORDERING INFORMATION**

Product No.	Package Type	Shipping Quantity			
DF150S-T3	DIL Bridge SMD	1500/Tape & Reel			
DF150S	DIL Bridge SMD	50 Units/Tube			
DF151S-T3	DIL Bridge SMD	1500/Tape & Reel			
DF151S	DIL Bridge SMD	50 Units/Tube			
DF152S-T3	DIL Bridge SMD	1500/Tape & Reel			
DF152S	DIL Bridge SMD	50 Units/Tube			
DF154S-T3	DIL Bridge SMD	1500/Tape & Reel			
DF154S	DIL Bridge SMD	50 Units/Tube			
DF156S-T3	DIL Bridge SMD	1500/Tape & Reel			
DF156S	DIL Bridge SMD	50 Units/Tube			
DF158S-T3	DIL Bridge SMD	1500/Tape & Reel			
DF158S	DIL Bridge SMD	50 Units/Tube			
DF1510S-T3	DIL Bridge SMD	1500/Tape & Reel			
DF1510S	DIL Bridge SMD	50 Units/Tube			

Products listed in **bold** are WTE **Preferred** devices. \*T3 suffix refers to a 13" reel.

#### RECOMMENDED FOOTPRINT



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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.

Won-Top Electronics Co., Ltd.

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

Fax: 886-7-822-5417 Email: sales@wontop.com Internet: http://www.wontop.com

We power your everyday.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.