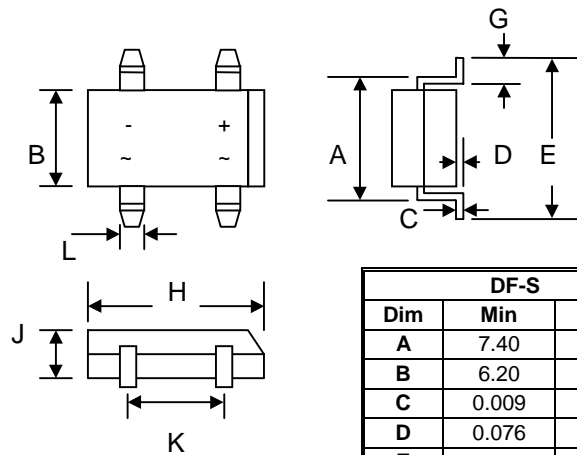


### Features

- 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 = 2.20~2.50mm) are available.  
Please consult factory.

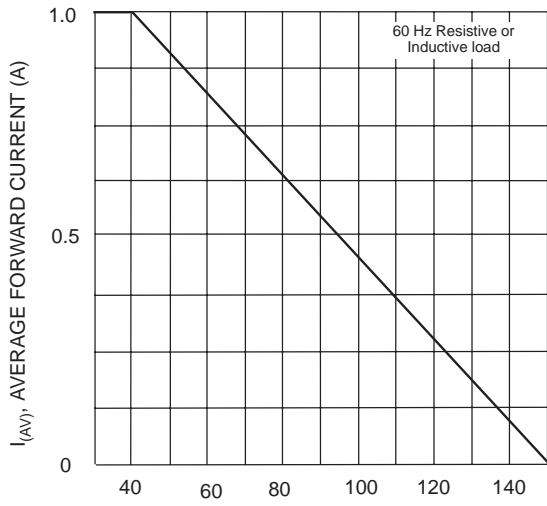
DF-S		
Dim	Min	Max
A	7.40	7.90
B	6.20	6.50
C	0.009	0.25
D	0.076	0.33
E	—	10.40
G	1.02	1.53
H	8.13	8.51
J*	3.20	3.40
K	5.0	5.20
L	1.00	1.20
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

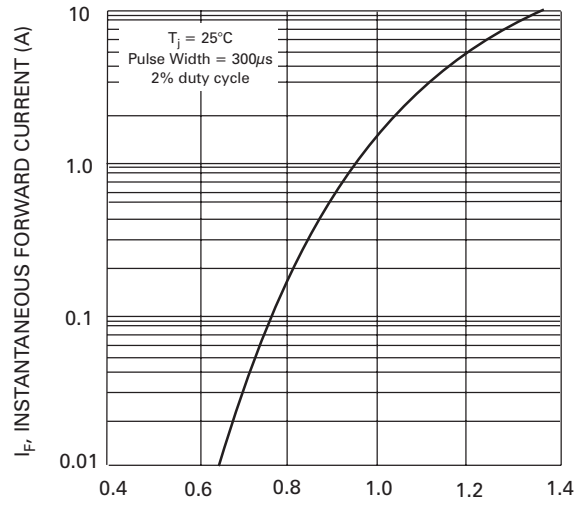
Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	DF 005S	DF 01S	DF 02S	DF 04S	DF 06S	DF 08S	DF 10S	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RWM}$								
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_A = 40^\circ\text{C}$	$I_O$	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30							A
Forward Voltage per element @ $I_F = 1.0\text{A}$	$V_{FM}$	1.1							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	$I_{RM}$	10 500							$\mu\text{A}$
Typical Junction Capacitance per element (Note 1)	$C_j$	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	110							K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150							$^\circ\text{C}$

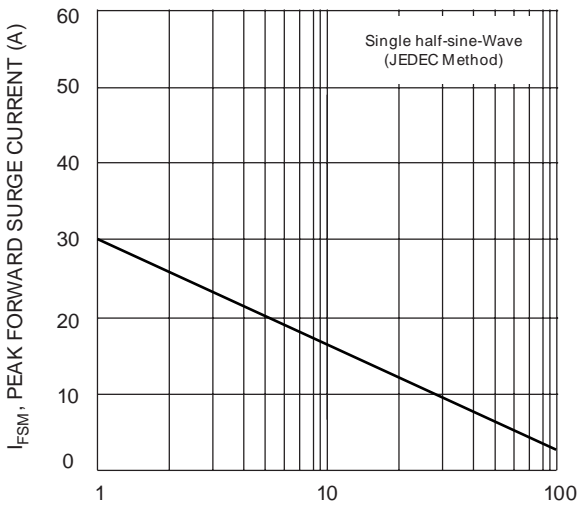
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Thermal resistance junction to ambient mounted on PC board with 5.0mm<sup>2</sup> (0.03mm thick) land areas.



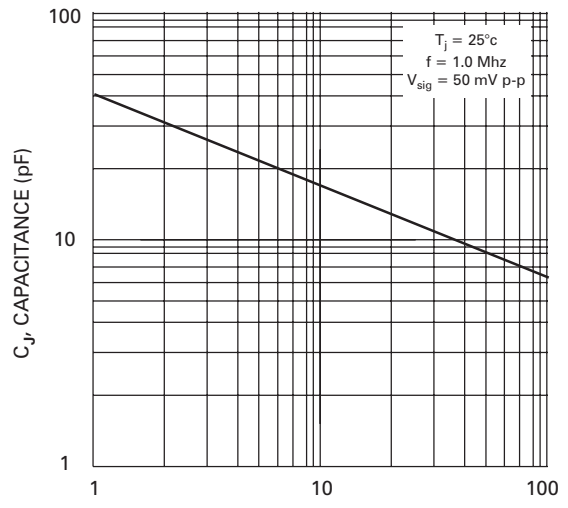
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Output Current Derating Curve



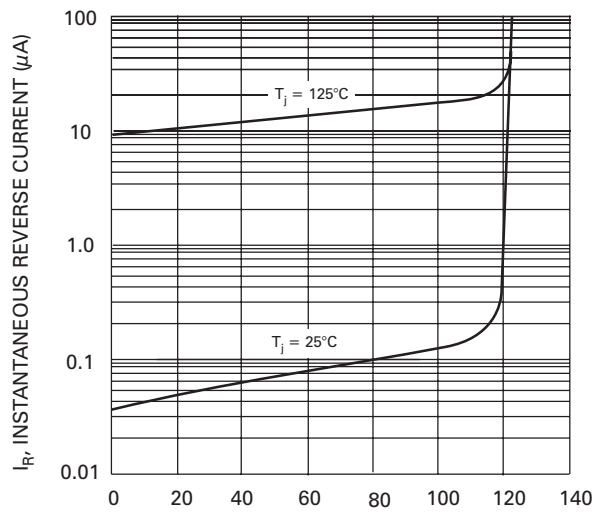
$V_{FR}$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typ Forward Characteristics (per element)



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



$V_R$ , 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

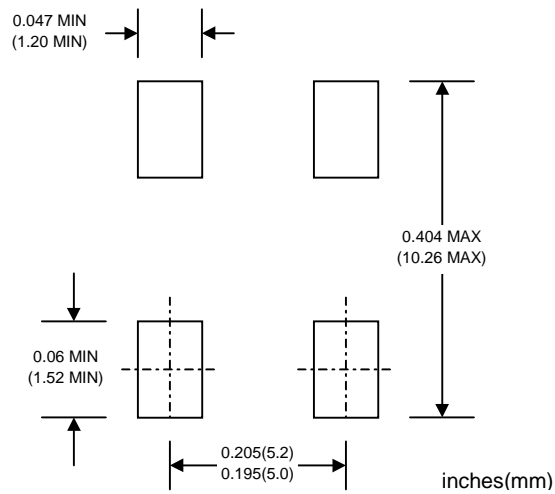
Product No. ♦	Package Type	Shipping Quantity
<b>DF005S-T3</b>	DIL Bridge SMD	1500/Tape & Reel
DF005S	DIL Bridge SMD	50 Units/Tube
<b>DF01S-T3</b>	DIL Bridge SMD	1500/Tape & Reel
DF01S	DIL Bridge SMD	50 Units/Tube
<b>DF02S-T3</b>	DIL Bridge SMD	1500/Tape & Reel
DF02S	DIL Bridge SMD	50 Units/Tube
<b>DF04S-T3</b>	DIL Bridge SMD	1500/Tape & Reel
DF04S	DIL Bridge SMD	50 Units/Tube
<b>DF06S-T3</b>	DIL Bridge SMD	1500/Tape & Reel
DF06S	DIL Bridge SMD	50 Units/Tube
<b>DF08S-T3</b>	DIL Bridge SMD	1500/Tape & Reel
DF08S	DIL Bridge SMD	50 Units/Tube
<b>DF10S-T3</b>	DIL Bridge SMD	1500/Tape & Reel
DF10S	DIL Bridge SMD	50 Units/Tube

Products listed in **bold** are WTE **Preferred** devices.

♦T3 suffix refers to a 13" reel.

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

## RECOMMENDED FOOTPRINT



Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**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.