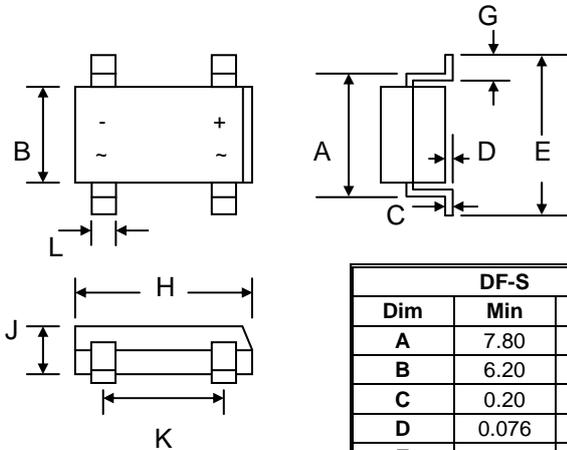


### Features

- 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-0



| DF-S                 |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 7.80  | 8.50  |
| B                    | 6.20  | 6.50  |
| C                    | 0.20  | 0.35  |
| D                    | 0.076 | 0.33  |
| E                    | —     | 10.40 |
| G                    | 1.02  | 1.53  |
| H                    | 8.13  | 8.80  |
| J                    | 2.20  | 2.50  |
| K                    | 5.00  | 5.20  |
| L                    | 1.00  | 1.20  |
| All Dimensions in mm |       |       |

### Mechanical Data

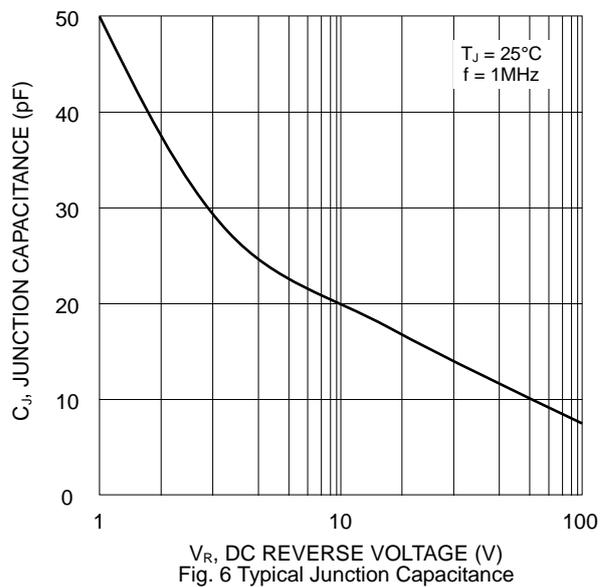
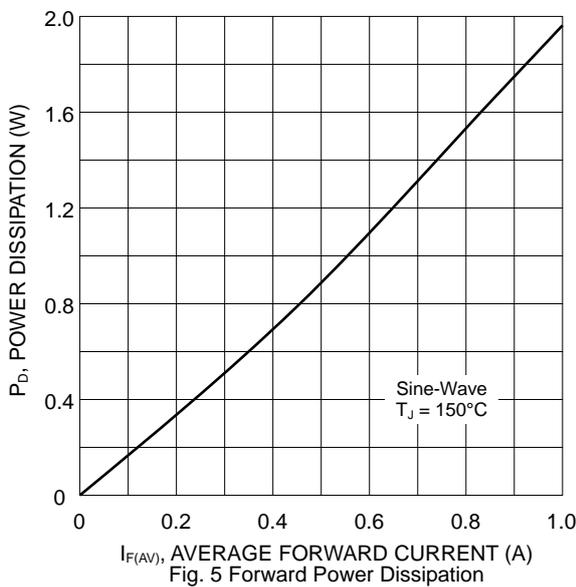
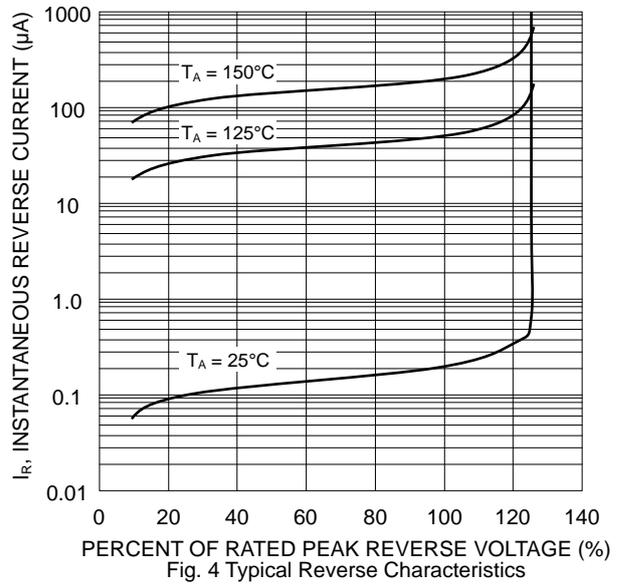
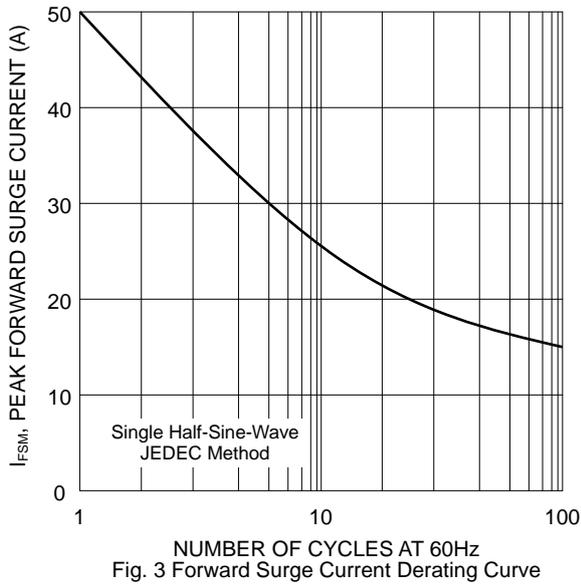
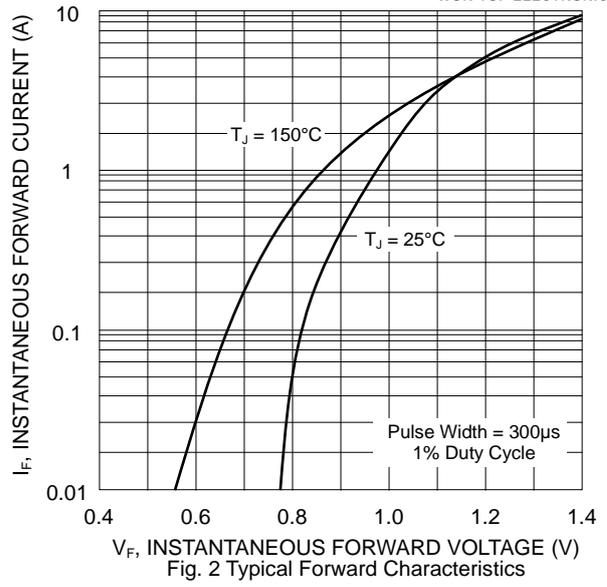
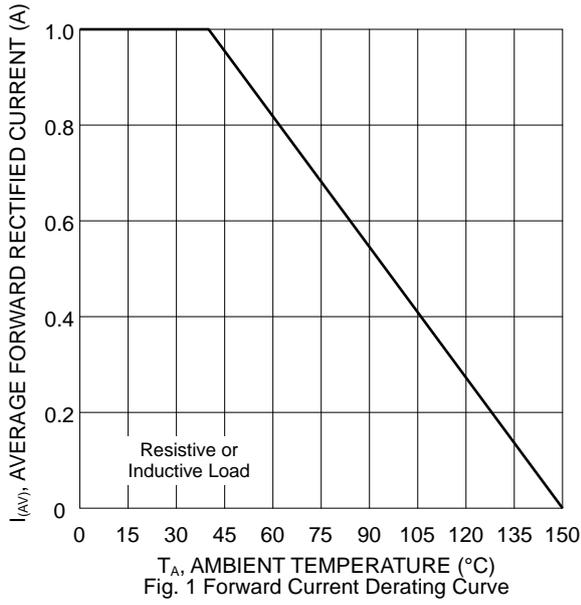
- Case: DF-S, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Weight: 0.38 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

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

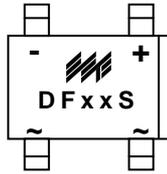
Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristic  | Symbol               | DF          | DF  | DF  | DF  | DF  | DF  | DF   | Unit                 |
|---|----------------------|-------------|-----|-----|-----|-----|-----|------|----------------------|
|   |                      | 005S        | 01S | 02S | 04S | 06S | 08S | 10S  |                      |
| Peak Repetitive Reverse Voltage   | $V_{RRM}$            |             |     |     |     |     |     |      | V                    |
| Working Peak Reverse Voltage  | $V_{RWM}$            | 50          | 100 | 200 | 400 | 600 | 800 | 1000 |                      |
| 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<br>8.3ms Single Half Sine-Wave Superimposed on<br>Rated Load (JEDEC Method) | $I_{FSM}$            | 50          |     |     |     |     |     |      | A                    |
| Forward Voltage per element @ $I_F = 1.0\text{A}$   | $V_{FM}$             | 1.1         |     |     |     |     |     |      | V                    |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$           | $I_{RM}$             | 5.0<br>500  |     |     |     |     |     |      | $\mu\text{A}$        |
| $I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )   | $I^2t$               | 10          |     |     |     |     |     |      | $\text{A}^2\text{s}$ |
| Typical Junction Capacitance per leg (Note 1)   | $C_J$                | 25          |     |     |     |     |     |      | pF                   |
| Typical Thermal Resistance per leg (Note 2)   | $R_{JA}$<br>$R_{JL}$ | 40<br>15    |     |     |     |     |     |      | $^\circ\text{C/W}$   |
| 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. Mounted on PC board with 13 x 13mm copper pad.

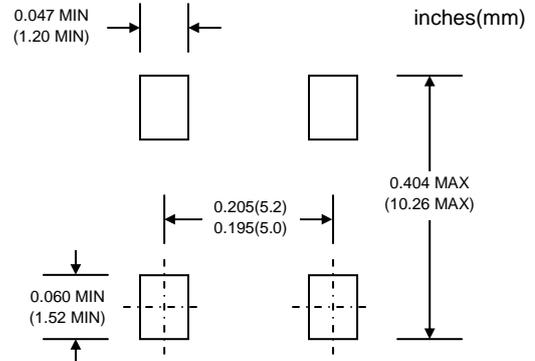


## MARKING INFORMATION



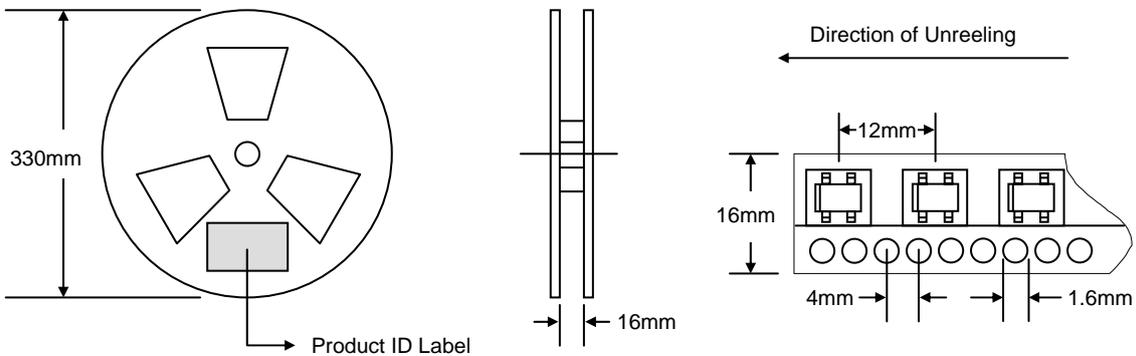
DFxxS = Device Number  
 xx = 005, 01, 02, 04, 06, 08 or 10  
 Polarity = As Marked on Body

## RECOMMENDED FOOTPRINT



## PACKAGING INFORMATION

### TAPE & REEL



| Reel Diameter (mm) | Quantity (PCS) | Inner Box Size L x W x H (mm) | Quantity (PCS) | Carton Size L x W x H (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|--------------------|----------------|-------------------------------|----------------|----------------------------|----------------|---------------------------|
| 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  |

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / 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.

**Won-Top Electronics Co., Ltd.**  
No. 44 Yu Kang North 3rd Road,  
Chine Chen Dist., Kaohsiung 806, 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.*