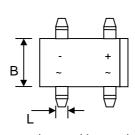


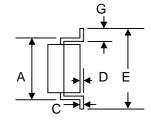
DF150S - DF1510S

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 | | | | | |

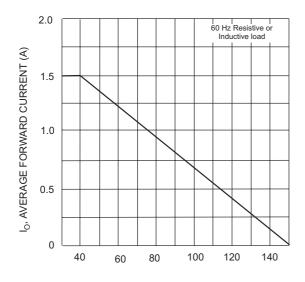
Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

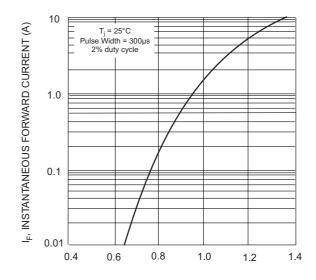
| Characteristic | Symbol | DF 150S | DF 151S | DF 152S | DF 154S | DF 156S | DF 158S | DF 1510S | Unit |
|---|--------------------|-------------|------------|------------|------------|------------|------------|-------------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking 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 _A = 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 $@T_A = 125^{\circ}C$ | | 10 500 | | | | | μΑ | | |
| Typical Junction Capacitance per element (Note 1) | Cj | 25 | | | | | pF | | |
| Typical Thermal Resistance (Note 2) | R_{θ} JA | 74 | | | | K/W | | | |
| Operating and Storage Temperature Range | Тj, Tsтg | -65 to +150 | | | | | °C | | |

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

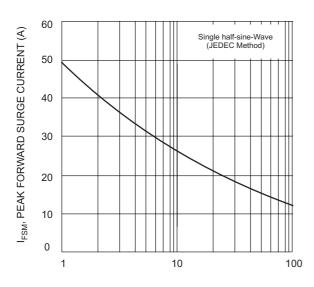
2. Thermal resistance junction to ambient mounted on PC board with 5.0mm² (0.03mm thick) land areas.



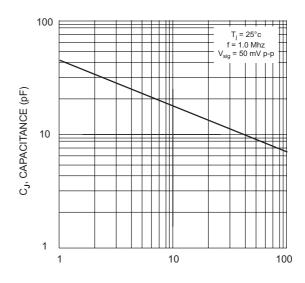
T_A, AMBIENT TEMPERATURE (°C) Fig. 1 Output Current Derating Curve



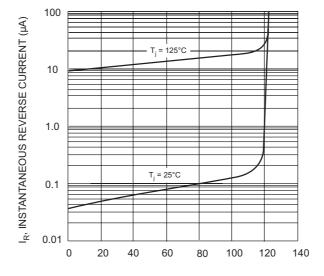
V_F, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typ Forward Characteristics (per element)



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)



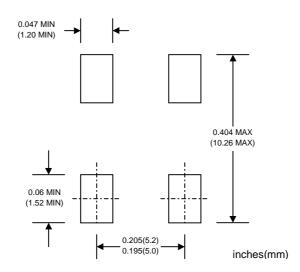
PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typ Reverse Characteristics (per element)

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