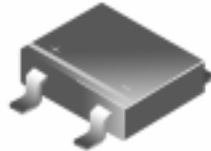


DF005S - DF10S

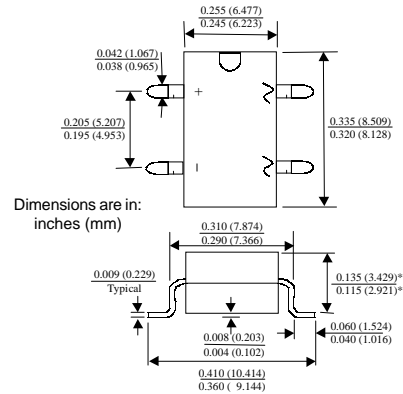
Features

- Surge overload rating: 50 amperes peak.
- Glass passivated junction.
- Low leakage.



SDIP

LOW PROFILE ALSO AVAILABLE
BODY -- 0.102 (2.591)*
0.095 (2.413)*



1.5 Ampere Bridge Rectifiers

Absolute Maximum Ratings* $T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|-----------------------|---|-------------|---------------------------|
| I_O | Average Rectified Current @ $T_A = 40^\circ\text{C}$ | 1.5 | A |
| $i_{f(\text{surge})}$ | Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method) | 50 | A |
| P_D | Total Device Dissipation Derate above 25°C | 3.1 25 | W mW/ $^\circ\text{C}$ |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient,** per leg | 40 | $^\circ\text{C}/\text{W}$ |
| T_{stg} | Storage Temperature Range | -55 to +150 | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | -55 to +150 | $^\circ\text{C}$ |

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

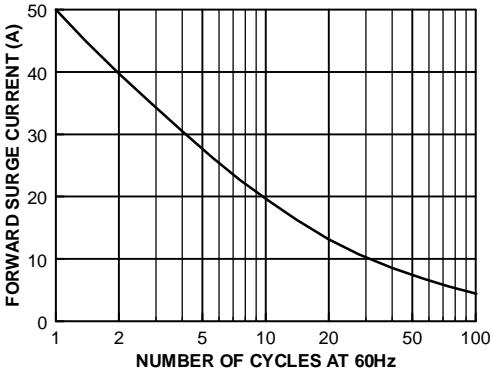
**Device mounted on PCB with $0.5 \times 0.5"$ ($13 \times 13 \text{ mm}$).

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

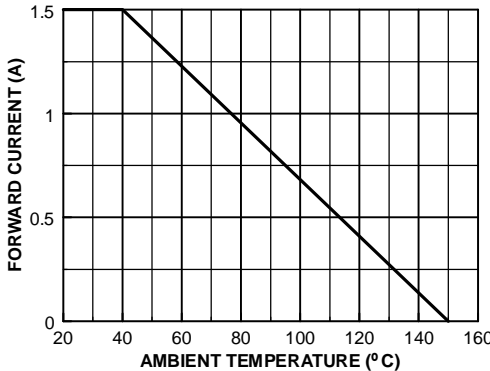
| Parameter | Device | | | | | | | Units |
|--|------------|-----|-----|-----|-----|-----|------|--------------------------------|
| | 005S | 01S | 02S | 04S | 06S | 08S | 10S | |
| Peak Repetitive Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Bridge Input Voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| DC Reverse Voltage (Rated V_R) | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Reverse Leakage, total bridge @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ | 5.0 500 | | | | | | | μA μA |
| Maximum Forward Voltage Drop, per bridge @ 1.0 A | 1.1 | | | | | | | V |
| I^2t rating for fusing $t < 8.35 \text{ ms}$ | 10 | | | | | | | A^2Sec |
| Typical Junction Capacitance, per leg $V_R = 4.0 \text{ V}$, $f = 1.0 \text{ MHz}$ | 25 | | | | | | | pF |

Typical Characteristics

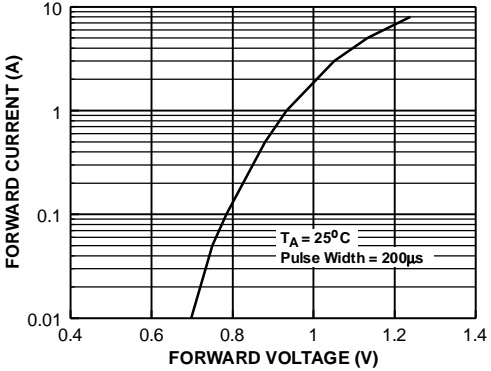
Non-Repetitive Surge Current



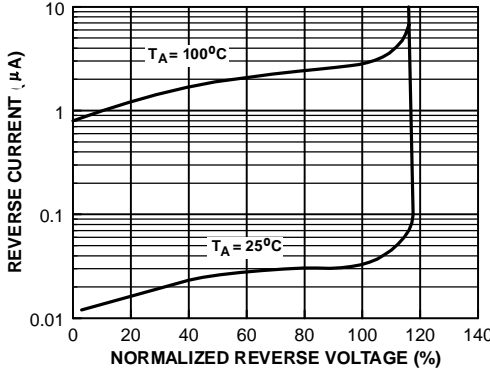
Output Rectified Current



Forward Characteristics



Reverse Characteristics



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| | |
|----------------------|---------------|
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| CoolFET™ | MICROWIRE™ |
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| E ² CMOS™ | PowerTrench™ |
| FACT™ | QS™ |
| FACT Quiet Series™ | Quiet Series™ |
| FAST® | SuperSOT™-3 |
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Definition of Terms

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|--------------------------|------------------------|---|
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