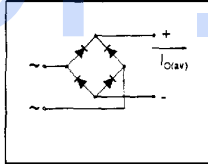


1A Single Phase D.I.L. Rectifier Bridge

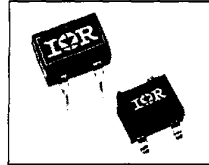
- Leads on standard 0.1" grid.
- Suitable for automatic insertion.
- High surge current capability.
- Fully characterised data.
- Wide temperature range.
- Surface mount option.



$I_{O(av)} = 1.0 \text{ A}$
 V_{RRM} range
 50 to 100V

Description

The DF Series of Single Phase Rectifier Bridges consists of four silicon junctions encapsulated in a 4 pin D.I.L. package. These devices are intended for general use in industrial and consumer equipment.



Electrical Specification

| | DF.... | Units | Conditions |
|----------------------------------------------------------------|-------------|-----------------------|------------------------------------------------------------|
| I_D Maximum DC output current | 1.0 | A | $T_{amb} = 40^\circ\text{C}$, Resistive or inductive load |
| | 0.8 | A | $T_{amb} = 40^\circ\text{C}$, Capacitive load |
| I_{FSM} Maximum peak one cycle, non-repetitive surge current | 30 | A | $t = 10\text{ms}, 20\text{ms}$ |
| | 31 | A | $t = 8.3\text{ms}, 16.7\text{ms}$ |
| I^2t Maximum I^2t capability for fusing | 4.5 | A^2s | $t = 10\text{ms}$ |
| | 4.1 | A^2s | $t = 8.3\text{ms}$ |
| | 6.4 | A^2s | $t = 10\text{ms}$ |
| | 5.8 | A^2s | $t = 8.3\text{ms}$ |
| I^2vt Maximum I^2vt capability for fusing | 64 | A^2vs | $t = 0.1$ to 10ms , no voltage reapplied |
| V_{FM} Maximum peak forward voltage per diode | 1.0 | V | $I_{FM} = 1.0\text{A}$, $T_j = 25^\circ\text{C}$ |
| I_{RM} Typical peak reverse leakage per diode | 5 | mA | $T_j = 25^\circ\text{C}$, 100% V_{RRM} |
| | 100 | mA | $T_j = 150^\circ\text{C}$, 100% V_{RRM} |
| f Operating frequency range | 400 to 1000 | Hz | |
| V_{RRM} Maximum repetitive peak reverse voltage range | 50 to 1000 | V | |

Thermal and Mechanical Specifications

| | DF.... | Units | Conditions |
|----------------------------------------------------------|------------|------------------|------------|
| T_{jT} Operating and storage temperature range | -40 to 150 | $^\circ\text{C}$ | |
| $R_{\theta JA}$ Thermal resistance, junctions to ambient | 60 | K/W | |
| W Approximate weight | 0.6 (0.02) | g (oz) | |

Voltage Specifications

| Part Number | V_{RRM} : Maximum repetitive peak reverse voltage | V_{RSM} : Maximum non-repetitive peak reverse voltage |
|-------------|-----------------------------------------------------|---------------------------------------------------------|
| | V | V |
| DF005 | 50 | 80 |
| DF01 | 100 | 150 |
| DF02 | 200 | 300 |
| DF04 | 400 | 500 |
| DF06 | 600 | 700 |
| DF08 | 800 | 900 |
| DF10 | 1000 | 1100 |

Part Numbering

To specify standard outline add 'M' suffix, e.g. DF06M etc.

To specify surface mount option (S.M.D.) add 'S' suffix, e.g. DF04S etc.

To specify tape reel option add 'TRR16' or 'TR16' suffix, e.g. 1B06STRR16, 1B02STR16 etc.

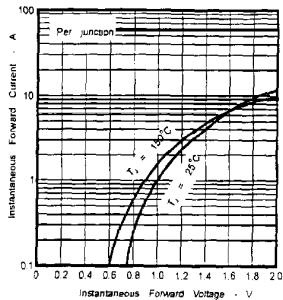


Fig. 1 - Forward Characteristics

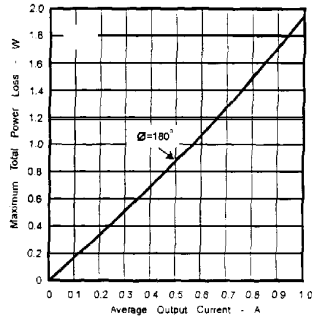


Fig. 2 - Power Loss Characteristics

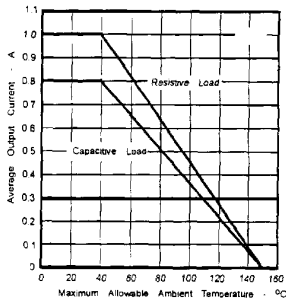


Fig. 3 - Current Ratings

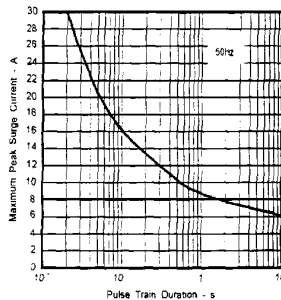
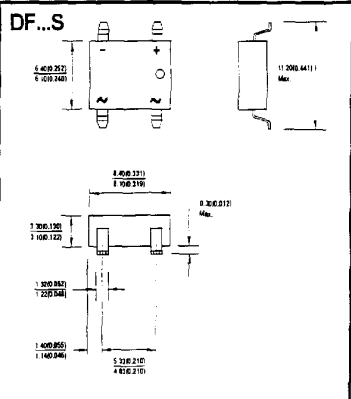
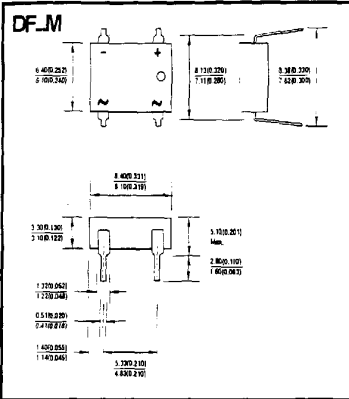


Fig. 4 - Non-Repetitive Surge Ratings

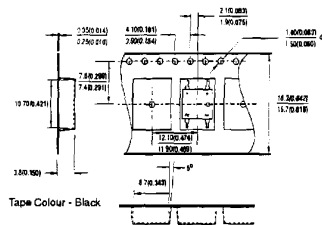


DF SERIES

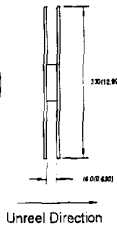
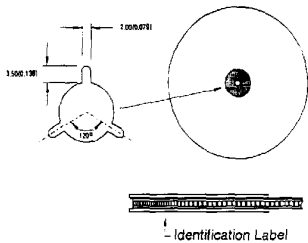
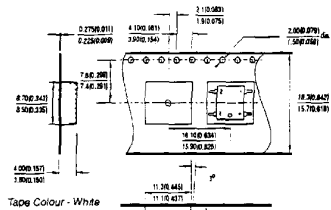


Tape Reel

Tape Reel Dimensions for DF..TRR16



Tape Reel Dimensions for DF..TR16



Footprint and Pad Dimensions

