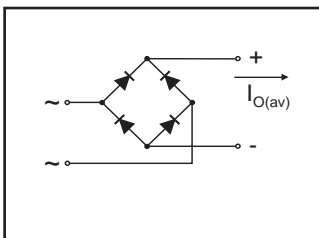


### 1A Single Phase D.I.L. Rectifier Bridge

- \* 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 1000V**

### 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
$I_O$ 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	$\text{A}^2\text{s}$	$t = 10\text{ms}$
	4.1	$\text{A}^2\text{s}$	$t = 8.3\text{ms}$
	6.4	$\text{A}^2\text{s}$	$t = 10\text{ms}$
	5.8	$\text{A}^2\text{s}$	$t = 8.3\text{ms}$
$I^2\sqrt{t}$ Maximum $I^2\sqrt{t}$ capability for fusing	64	$\text{A}^2\sqrt{\text{s}}$	$t = 0.1$ to $10\text{ms}$ , 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
$T_J, T_{stg}$ Operating and storage temperature range	-40 to 150	$^\circ\text{C}$	
$R_{thJA}$ Thermal resistance, junctions to ambient	60	KW	
$W$ Approximate weight	0.6 (0.02)	g (oz)	

# DF SERIES



## 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. DF06STRR16, DF02STR16 etc.

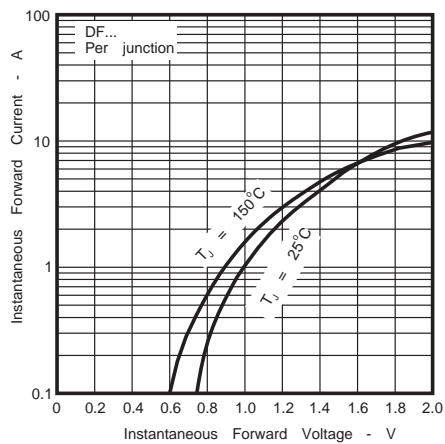


Fig. 1 - Forward Characteristics

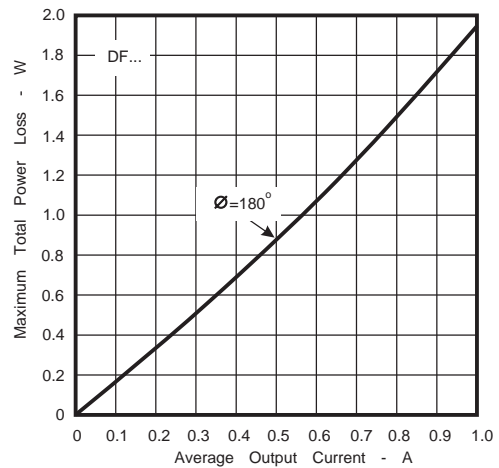


Fig. 2 - Power Loss Characteristics

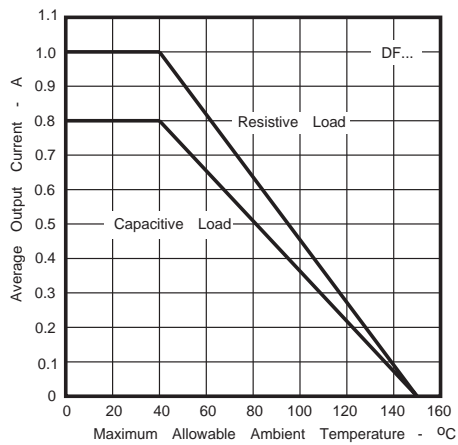


Fig. 3 - Current Ratings

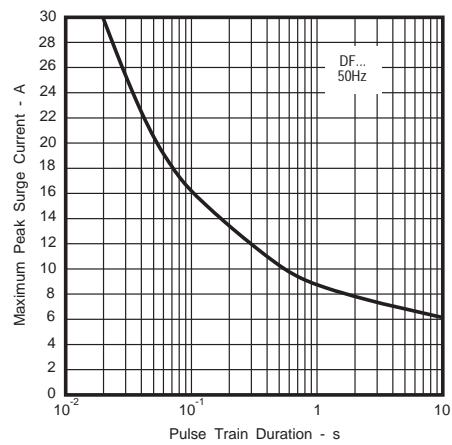
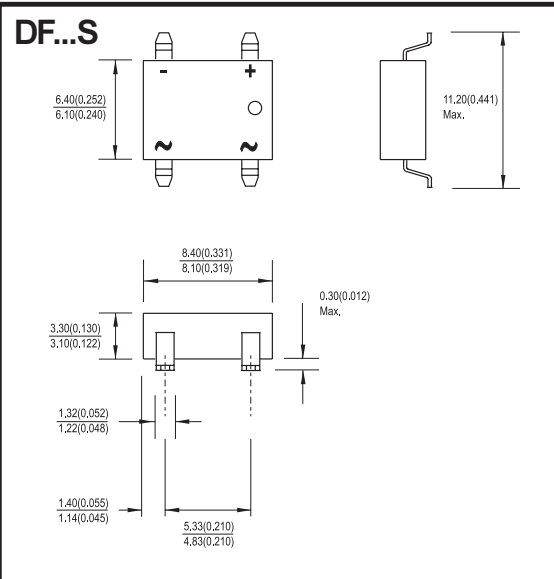
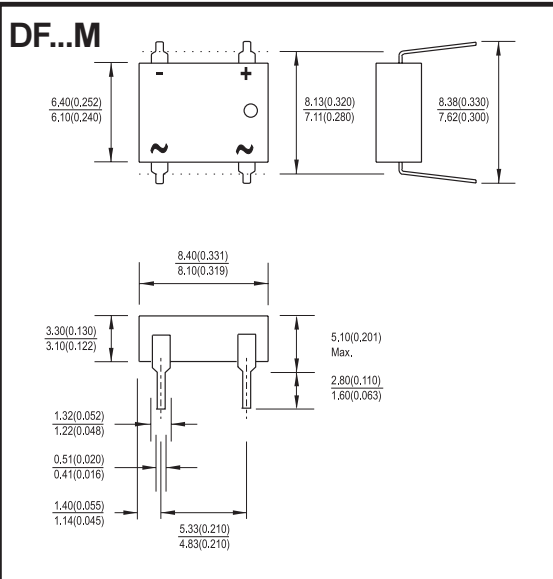


Fig. 4 - Non-Repetitive Surge Ratings

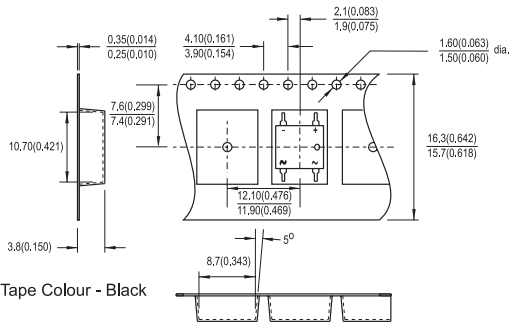


# DF SERIES

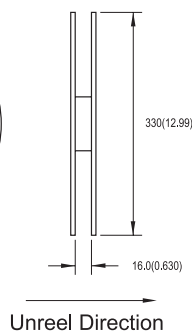
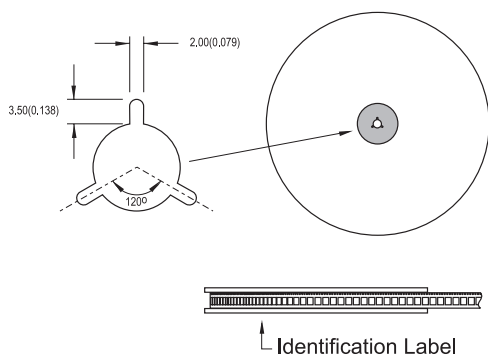
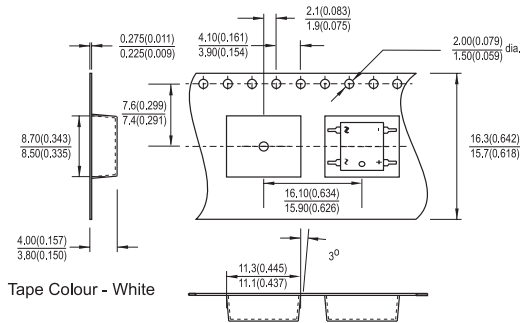


## Tape Reel

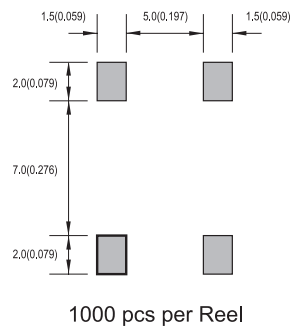
Tape Reel Dimensions for DF..TRR16



Tape Reel Dimensions for DF..TR16



## Footprint and Pad Dimensions



All dimensions in millimetres(inches)