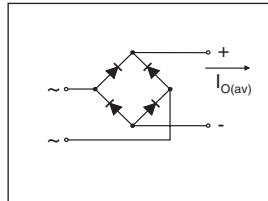


### 1A Single Phase D.I.L. Rectifier Bridge

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



$$I_{O(av)} = 1.0 \text{ A}$$

$$V_{RRM} \text{ range}$$

$$50 \text{ to } 1000\text{V}$$

#### 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	$\text{A}^2\sqrt{\text{s}}$	$t = 0.1 \text{ to } 10\text{ms}$ , 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	$\mu\text{A}$	$T_J = 25^\circ\text{C}$ , 100% $V_{RRM}$
		100	$\mu\text{A}$	$T_J = 150^\circ\text{C}$ , 100% $V_{RRM}$
$f$	Operating frequency range	50 to 1000	Hz	
$V_{RRM}$	Maximum repetitive peak reverse voltage range	50 to 1000	V	

#### Thermal and Mechanical Specifications

		DF...	Units	Conditions
$T_J$	Operating and storage temperature range	- 55 to 150	$^\circ\text{C}$	
$T_{stg}$	Operating and storage temperature range			
$R_{thJA}$	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	$V_{RSM}$ Maximum non-repetitive peak reverse voltage 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 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.

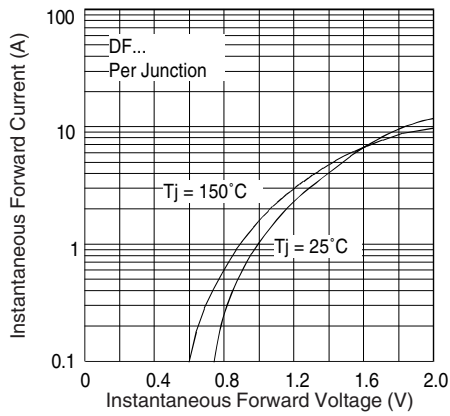


Fig. 1 - Forward Characteristics

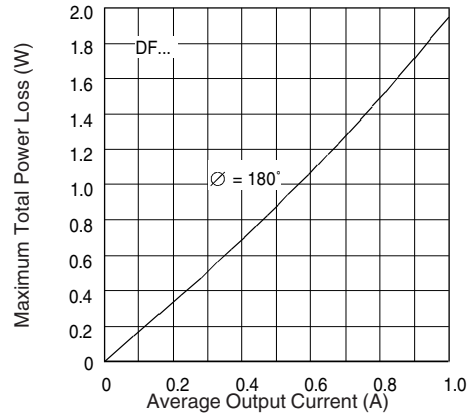


Fig. 2 - Power Loss Characteristics

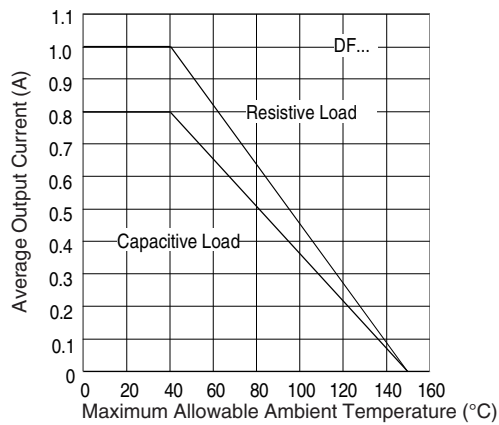


Fig. 3 - Current Ratings

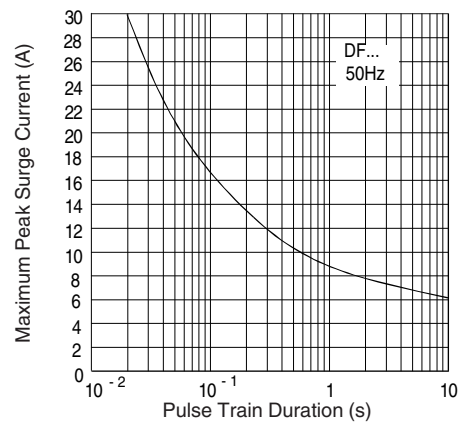
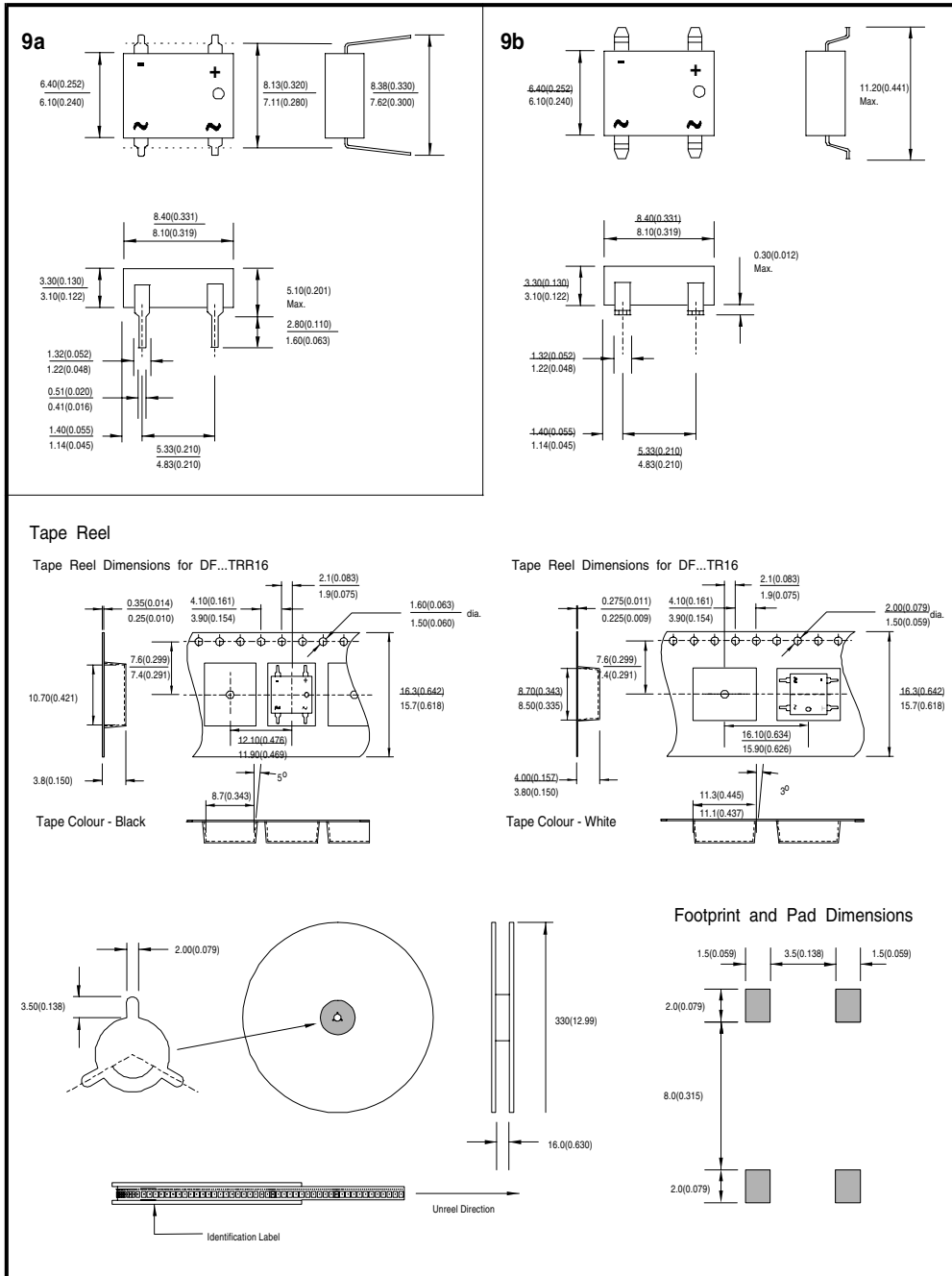


Fig. 4 - Non-Repetitive Surge Ratings

**DF...**

**DF...S**



All dimensions in millimetres(inches)

## DF SERIES

Bulletin U2788 rev.D 04/00

---

International  
**IOR** Rectifier

International  
**IOR** Rectifier

**WORLD HEADQUARTERS:** 233 Kansas St., El Segundo, California 90245 U.S.A. Tel: (310) 322 3331. Fax: (310) 322 3332.  
**EUROPEAN HEADQUARTERS:** Hurst Green, Oxted, Surrey RH8 9BB, U.K. Tel: ++ 44 1883 732020. Fax: ++ 44 1883 733408.  
**IR CANADA:** 15 Lincoln Court, Brampton, Markham, Ontario L6T3Z2. Tel: (905) 453 2200. Fax: (905) 475 8801.  
**IR GERMANY:** Saalburgstrasse 157, 61350 Bad Homburg. Tel: ++ 49 6172 96590. Fax: ++ 49 6172 965933.  
**IR ITALY:** Via Liguria 49, 10071 Borgaro, Torino. Tel: ++ 39 11 4510111. Fax: ++ 39 11 4510220.  
**IR FAR EAST:** K&H Bldg., 2F, 30-4 Nishi-Ikebukuro 3-Chome, Toshima-Ku, Tokyo, Japan 171. Tel: 81 3 3983 0086.  
**IR SOUTHEAST ASIA:** 1 Kim Seng Promenade, Great World City West Tower, 13-11, Singapore 237994. Tel: ++ 65 838 4630.  
**IR TAIWAN:** 16 Fl. Suite D.207, Sec. 2, Tun Haw South Road, Taipei, 10673, Taiwan. Tel: 886 2 2377 9936.