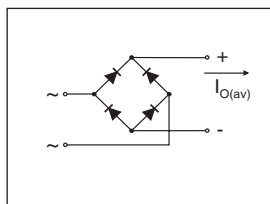


International IOR Rectifier

1B SERIES

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 1B 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

		1B...	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	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	$t = 8.3\text{ms}$
$I^2\sqrt{t}$	Maximum $I^2\sqrt{t}$ capability for fusing	64	$\text{A}^2\sqrt{\text{s}}$	$t = 0.1$ 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	μA	$T_J = 25^\circ\text{C}$, 100% V_{RRM}
		100	μA	$T_J = 150^\circ\text{C}$, 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

		1B...	Units	Conditions
T_J T_{stg}	Operating and storage temperature range	- 55 to 150	$^\circ\text{C}$	
R_{thJA}	Thermal resistance, junctions to ambient	60	K/W	
W	Approximate weight	0.6 (0.02)	g (oz)	

1B SERIES

Bulletin E2788 rev. D 04/00

Voltage Specifications

Part Number	V_{RRM} Maximum repetitive peak reverse voltage V	V_{RSM} Maximum non-repetitive peak reverse voltage V
1B005.	50	80
1B01.	100	150
1B02.	200	300
1B04.	400	500
1B06.	600	700
1B08.	800	900
1B10	1000	1100

Part Numbering

To specify surface mount option (S.M.D.) add 'S' suffix. e.g. 1B04S etc.

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

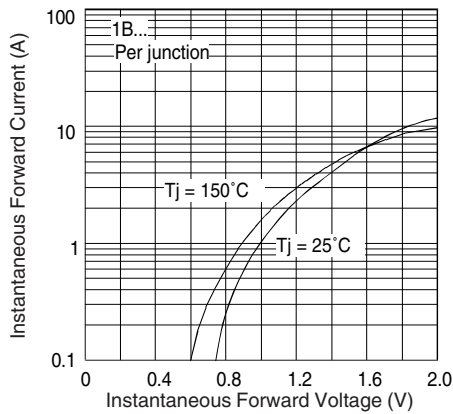


Fig. 1 - Forward Characteristics

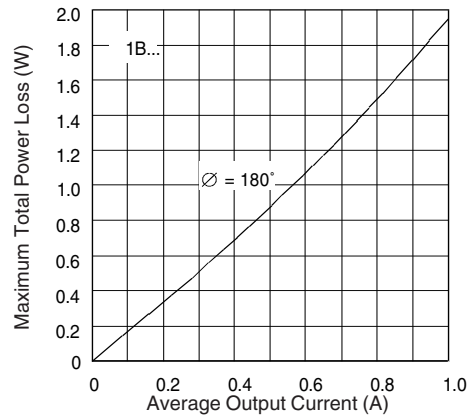


Fig. 2 - Power Loss Characteristics

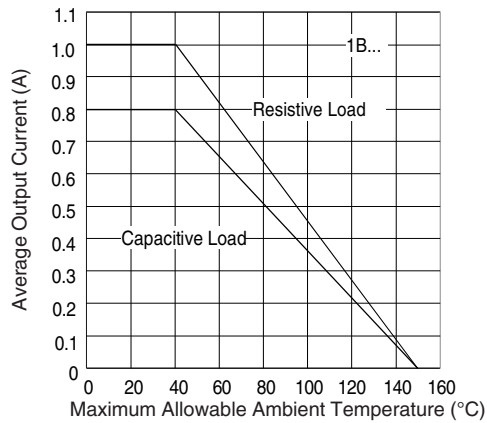


Fig. 3 - Current Ratings

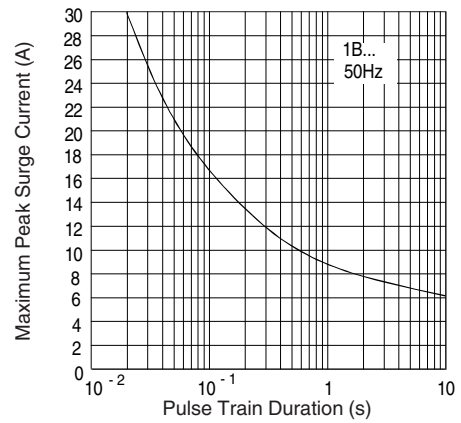
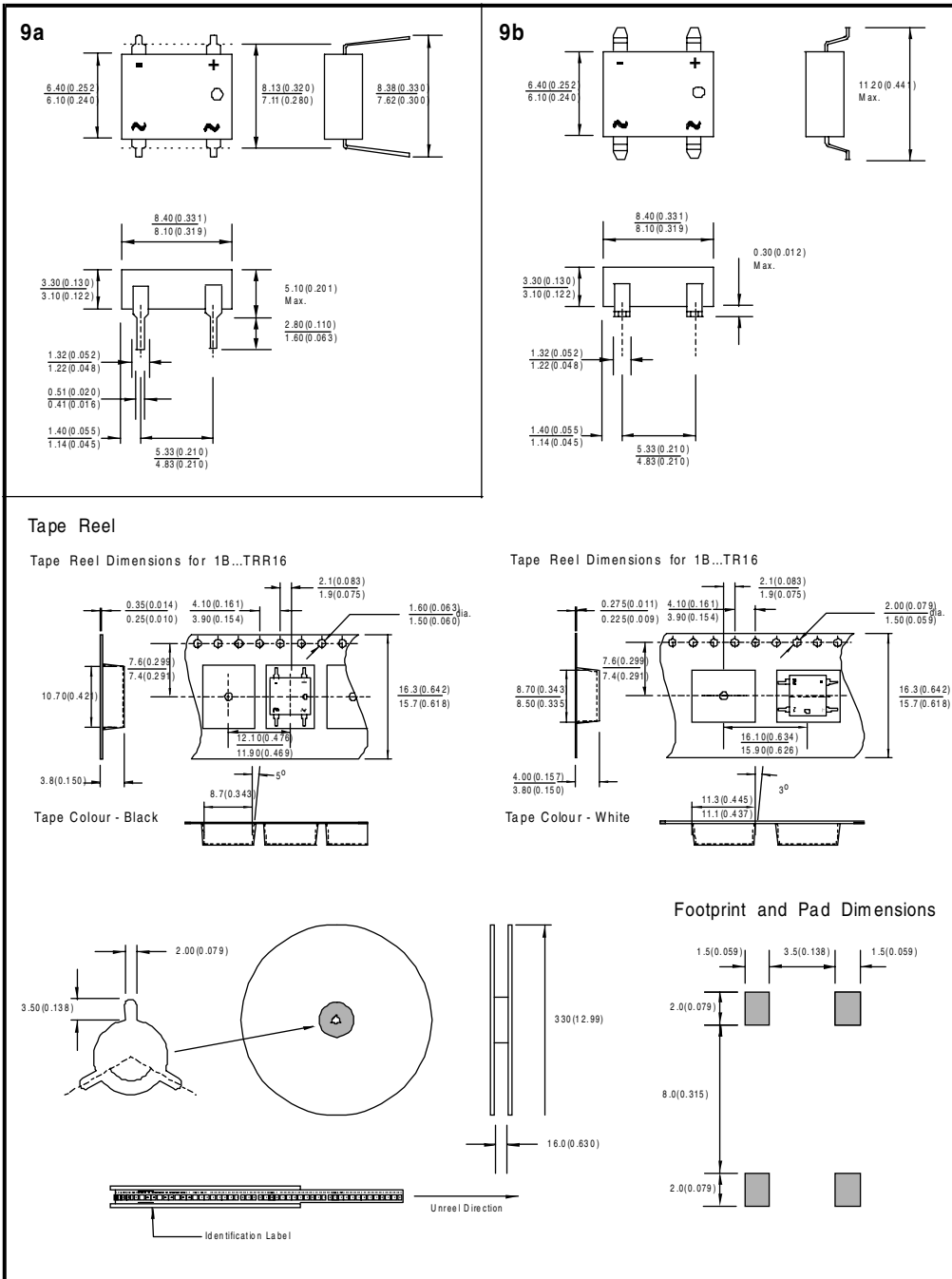


Fig. 4 - Non-Repetitive Surge Ratings

1B...

1B...S



All dimensions in millimetres(inches)

1B SERIES

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