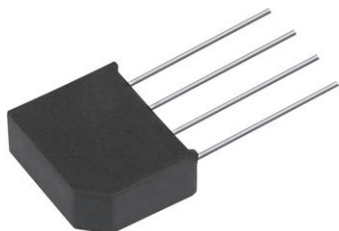


Single Phase Bridge Rectifier, 2 A



D-44

FEATURES

- Suitable for printed circuit board mounting
- Compact construction
- High surge current capability
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

DESCRIPTION

A 2 A single phase encapsulated bridge rectifier consisting of four single diodes connected as a full bridge. They are intended for general applications in industrial and consumer equipment.

PRIMARY CHARACTERISTICS

I_O	2 A
V_{RRM}	50 V to 1000 V
Package	D-44
Circuit configuration	Single phase bridge

MAJOR RATINGS AND CHARACTERISTICS

SYMBOL	CHARACTERISTICS	VALUES	UNITS
I_O		2.0	A
I_{FSM}	50 Hz	60	A
	60 Hz	63	
I^2t	50 Hz	18	A ² s
	60 Hz	16	
V_{RRM}		50 to 1000	V
T_J		-40 to +150	°C

ELECTRICAL SPECIFICATIONS

VOLTAGE RATINGS

PART NUMBER	V_{RRM} , MAXIMUM REPETITIVE PEAK REVERSE VOLTAGE (V)	V_{RSM} , MAXIMUM NON-REPETITIVE PEAK REVERSE VOLTAGE (V)	V_{RMS} , MAXIMUM RECOMMENDED RMS SUPPLY VOLTAGE (V)
VS-2KBP005	50	50	20
VS-2KBP01	100	100	50
VS-2KBP02	200	200	80
VS-2KBP04	400	400	125
VS-2KBP06	600	600	250
VS-2KBP08	800	800	380
VS-2KBP10	1000	1000	500



FORWARD CONDUCTION						
PARAMETER	SYMBOL	TEST CONDITIONS			VALUES	UNITS
Maximum DC output current	I _O	T _A = 50 °C, resistive or inductive load			2.0	A
		T _A = 50 °C, capacitive load			1.6	
Maximum peak one cycle, non-repetitive surge current	I _{FSM}	t = 10 ms, 20 ms	Following any rated load condition and with rated V _{RRM} reapplied		60	A
		t = 8.3 ms, 16.7 ms			63	
Maximum I ² t capability for fusing	I ² t	t = 10 ms	100 % V _{RRM} reapplied	Initial T _J = T _J maximum	18	A ² s
		t = 8.3 ms			16	
		t = 10 ms	No voltage reapplied		26	
		t = 8.3 ms		23		
Maximum I ² √t capability for fusing	I ² √t	t = 0.1 to 10 ms, no voltage reapplied			255	A ² √s
Maximum peak forward voltage per diode	V _{FM}	I _{FM} = 1 A, T _J = 25 °C			1.0	V
Typical peak reverse leakage current per diode	I _{RM}	T _J = 25 °C, 100 % V _{RRM}			10	μA
		T _J = 150 °C, 100 % V _{RRM}			1.0	mA
Operating frequency range	f				40 to 1000	Hz

THERMAL AND MECHANICAL SPECIFICATIONS			
PARAMETER	SYMBOL	VALUES	UNITS
Operating junction and storage temperature range	T_J , T_{Stg}	-40 to 150	$^{\circ}\text{C}$
Approximate weight		4	g
		0.14	oz.

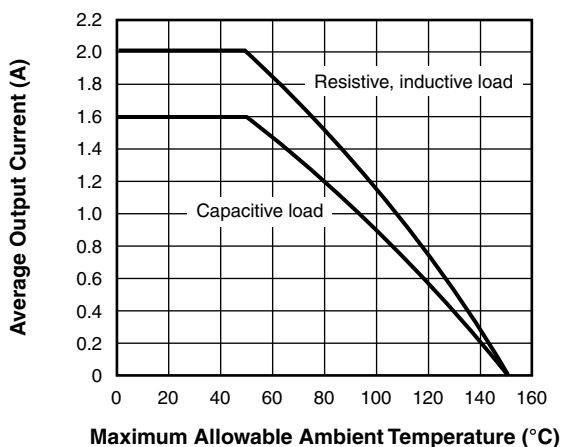


Fig. 1 - Ambient Temperature Ratings

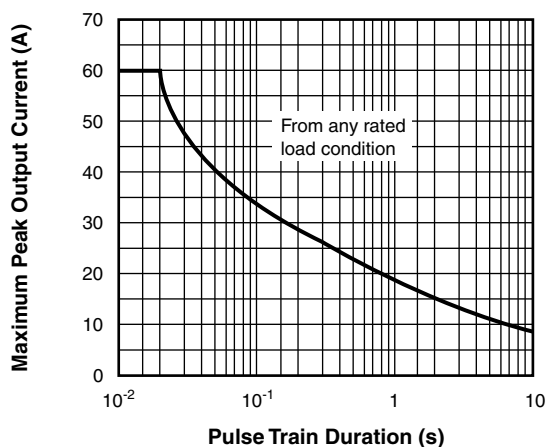
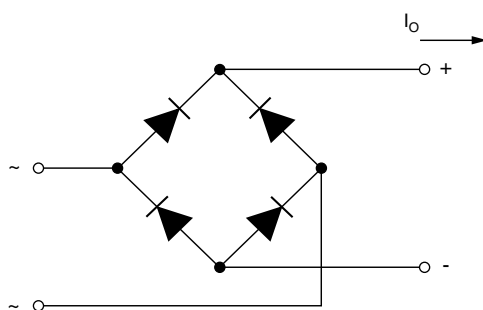


Fig. 2 - Non-Repetitive Surge Ratings



CIRCUIT CONFIGURATION



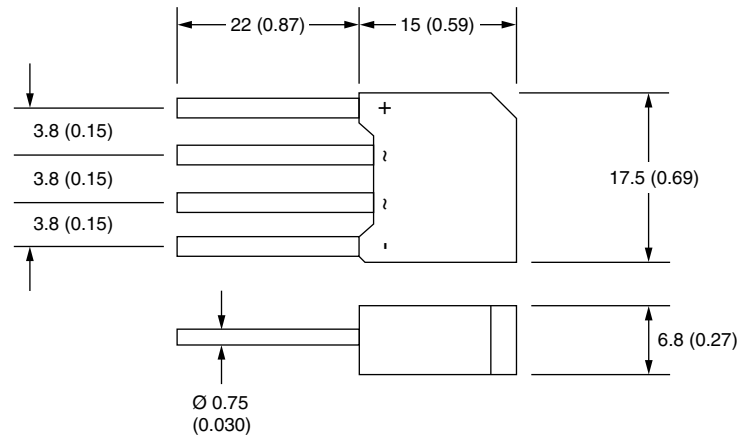
LINKS TO RELATED DOCUMENTS

Dimensions

www.vishay.com/doc?95329

D-44

DIMENSIONS in millimeters (inches)





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