

Single Phase Rectifier Bridge, 1.2 A



PRODUCT SUMMARY		
I _O	1.2 A	
V _{RRM}	100 V to 1000 V	
Package	D-38	
Circuit	Single phase bridge	

FEATURES

• Ease of assembly, installation, inventory



Compact

ROHS

 Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

DESCRIPTION

A 1.2 A diode bridge rectifier assembly designed for new circuits and for replacement service. For printed circuit board applications.

MAJOR RATINGS AND CHARACTERISTICS					
SYMBOL	CHARACTERISTICS	VALUES	UNITS		
Io		1.2	A		
I _{FSM}	50 Hz	50	٨		
	60 Hz	52	А		
l ² t	50 Hz	17.7	A ² s		
	60 Hz	16.1	A ² S		
V _{RRM}		100 to 1000	V		
T _J		-55 to 150	°C		

ELECTRICAL SPECIFICATIONS

VOLTAGE RATINGS						
CROSS REFER	OSS REFERENCE		V _{RMS}	MAXIMUM (1)	MINIMUM SOURCE RESISTANCE	
PART NUMBER	DIN CODE	V _{RRM} , V _{RSM} (V)	(RECOMMENDED) (V)	LOAD CAPACITANCE (μF)	(SEE FIGURE 3) (Ω)	
VS-1KAB10E	B40C1000	100	40	5000	0.5	
VS-1KAB20E	B80C1000	200	80	3300	0.8	
VS-1KAB40E	B125C1000	400	125	1600	1.5	
VS-1KAB60E	B250C1000	600	250	1200	2.6	
VS-1KAB80E	B380C1000	800	380	800	3.0	
VS-1KAB100E	B500C1000	1000	500	600	5.0	



FORWARD CONDUCTION					
PARAMETER	SYMBOL	TEST CONDITIONS		VALUES	UNITS
Maximum DC autaut august	Io	T _A = 45 °C, resistive or inductive load		1.2	А
Maximum DC output current		T _A = 45 °C, capacitive load		1.0	
Maximum peak one cycle, non-repetitive surge current	I _{FSM}	50 Hz half cycle sine wave or 6 ms rectangular pulse	Following any rated load condition, and with rated V _{RRM} applied following surge	50	А
		60 Hz half cycle sine wave or 5 ms rectangular pulse		52	
Maximum I ² t capability for fusing	l ² t	t = 10 ms	Rated V _{RRM} applied following surge, initial T _J = 150 °C	12.5	- A ² s
		t = 8.3 ms		11.3	
		t = 10 ms	V _{RRM} = 0 following surge, initial T _J = 150 °C	17.7	
		t = 8.3 ms		16.1	
Maximum $I^{2\sqrt{t}}$ capability for fusing	l 2√t (1)	t = 0.1 to 10 ms, V _{RRM} following surge = 0		177	A ^{2√} s
Maximum peak forward voltage per leg	V_{FM}	I _O = 1.2 A (1.88 A _{pk})		1.1	V
Typical peak reverse augrent per lea	I _{RM}	T _J = 25 °C, at rated V _{RRM}		10	μА
Typical peak reverse current per leg		$T_J = 150$ °C, at rated V_{RRM}		500	
Operating frequency range	f			40 to 2000	Hz

Note

(1) I^2t for time $t_x = I^2\sqrt{t} \times \sqrt{t_x}$

THERMAL AND MECHANICAL SPECIFICATIONS			
PARAMETER	SYMBOL	VALUES	UNITS
Operating junction and storage temperature range	T _J , T _{Stg}	-40 to 150	°C
Approvimento veright		3	g
Approximate weight		0.1	OZ.

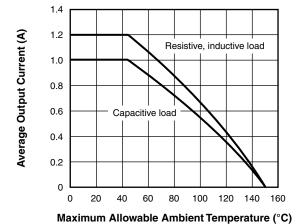


Fig. 1 - Average (DC) Output Current vs. Maximum Allowable Ambient Temperature

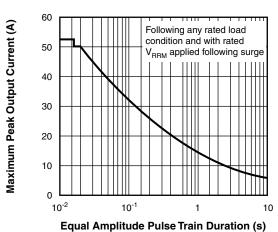


Fig. 2 - Maximum Non-Repetitive Surge Current vs. Pulse Train Duration (f = 50 Hz)



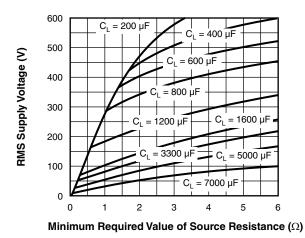


Fig. 3 - Minimum Required Source Resistance vs. RMS Supply Voltage and Load Capacitance

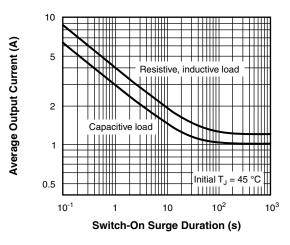
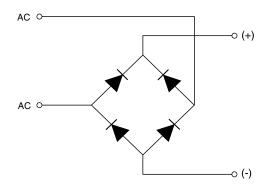


Fig. 4 - Maximum Switch-On Surge Current vs. Surge Duration

CIRCUIT CONFIGURATION

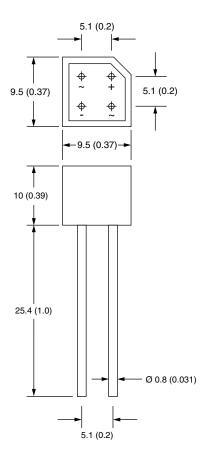


LINKS TO RELATED DOCUMENTS		
Dimensions	www.vishay.com/doc?95327	



D-38

DIMENSIONS in millimeters (inches)





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