

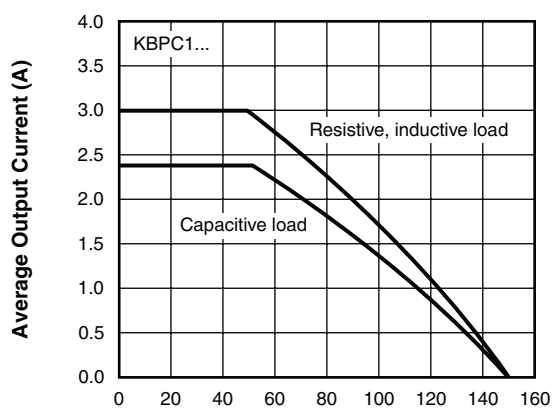
KBPC1, KBPC6 Series



Vishay High Power Products Single Phase Rectifier
Bridge, 3 A, 6 A

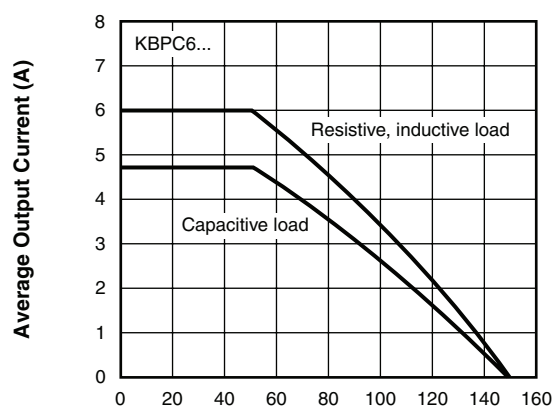
FORWARD CONDUCTION						
PARAMETER	SYMBOL	TEST CONDITIONS		KBPC1	KBPC6	UNITS
Maximum DC output current	I_O	$T_C = 50\text{ }^\circ\text{C}$, resistive or inductive load		3.0	6.0	A
		$T_C = 50\text{ }^\circ\text{C}$, capacitive load		2.4	4.7	
Maximum peak one cycle, non-repetitive surge current	I_{FSM}	$t = 10\text{ ms}$, 20 ms	Following any rated load condition and with rated V_{RRM} reapplied	50	125	A
		$t = 8.3\text{ ms}$, 16.7 ms		55	137	
Maximum I^2t capability for fusing	I^2t	$t = 10\text{ ms}$	Initial $T_J = T_J$ maximum 100 % V_{RRM} reapplied	12.5	78	A^2s
		$t = 8.3\text{ ms}$		11.4	71	
		$t = 10\text{ ms}$		17.7	110	
		$t = 8.3\text{ ms}$		16.1	1000	
Maximum $I^2\sqrt{t}$ capability for fusing	$I^2\sqrt{t}$	$t = 0.1\text{ ms}$ to 10 ms, no voltage reapplied		177	1105	$A^2\sqrt{s}$
Maximum peak forward voltage per diode	V_{FM}	$I_{FM} = 0.5 \times I_O$, $T_J = 25\text{ }^\circ\text{C}$		1.1	1.2	V
Typical peak reverse leakage per diode	I_{RM}	$T_J = 25\text{ }^\circ\text{C}$, 100 % V_{RRM}		10	10	mA
		$T_J = 150\text{ }^\circ\text{C}$, 100 % V_{RRM}		1.0	1.0	
Operating frequency range	f			40 to 1000		Hz
Maximum repetitive peak reverse voltage range	V_{RRM}			50 to 1000		V

THERMAL AND MECHANICAL SPECIFICATIONS				
PARAMETER	SYMBOL	KBPC1	KBPC6	UNITS
Operating and storage temperature range	T_J , T_{Stg}	- 40 to 150		$^\circ\text{C}$
Thermal resistance, junction to case	R_{thJC}	-	-	K/W
Approximate weight		5	6	g
		0.18	0.21	oz.



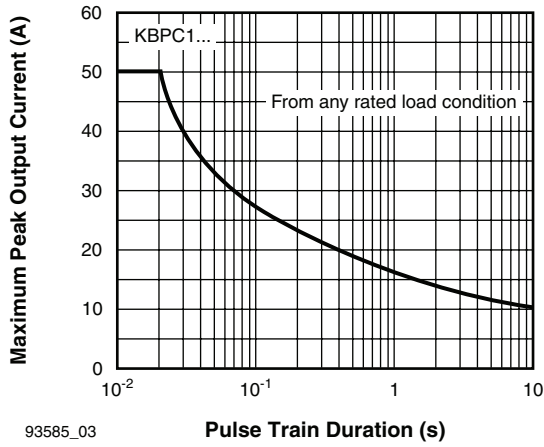
93585_01 Maximum Allowable Case Temperature ($^\circ\text{C}$)

Fig. 1 - Case Temperature Ratings



93585_02 Maximum Allowable Case Temperature ($^\circ\text{C}$)

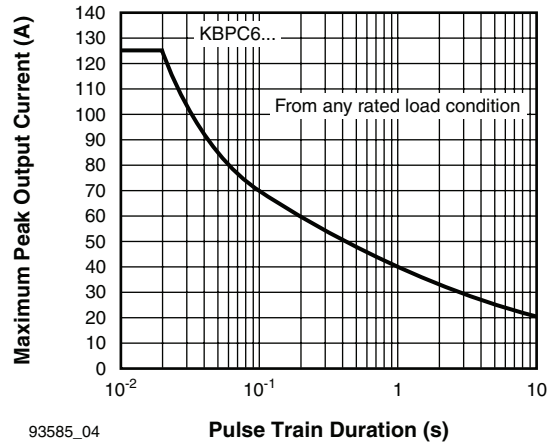
Fig. 2 - Case Temperature Ratings



93585_03

Pulse Train Duration (s)

Fig. 3 - Non-Repetitive Surge Ratings

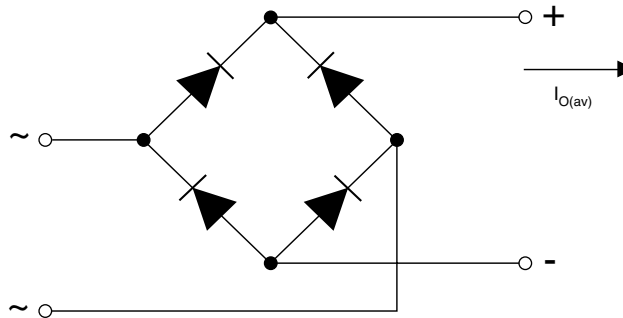


93585_04

Pulse Train Duration (s)

Fig. 4 - Non-Repetitive Surge Ratings

CIRCUIT CONFIGURATION



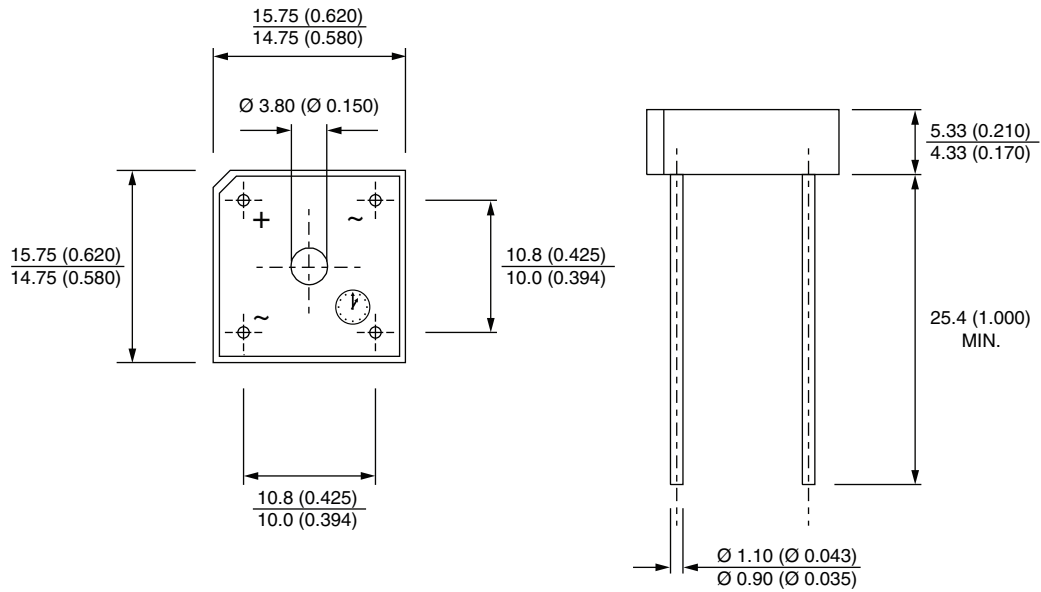
LINKS TO RELATED DOCUMENTS

Dimensions

www.vishay.com/doc?95250

D-72

DIMENSIONS in millimeters (inches)





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