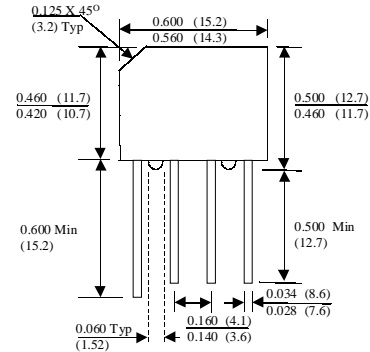


2KBP005M/3N253 - 2KBP10M/3N259

Features

- Surge overload rating: 60 amperes peak.
- Reliable low cost construction utilizing molded plastic technique.



Dimensions are in: inches (mm)

2.0 Ampere Bridge Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
I_O	Average Rectified Current	2.0	A
$I_{f(\text{surge})}$	Peak Forward Surge Current	60	A
P_D	Total Device Dissipation Derate above 25°C	4.7 33	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,** per leg	30	$^\circ\text{C}/\text{W}$
T_{stg}	Storage Temperature Range	-55 to +165	$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +165	$^\circ\text{C}$

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

** Device mounted on PCB with $0.47 \times 0.47"$ (12×12 mm).

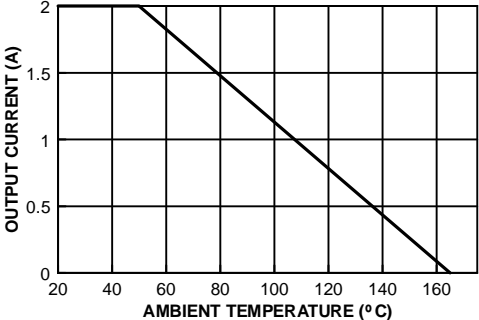
Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

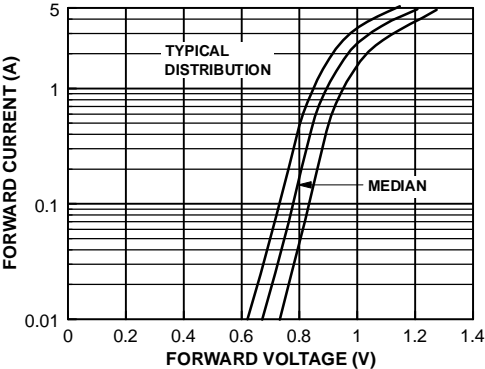
Parameter	Device								Units
	005M	01M	02M	04M	06M	08M	10M		
	253	254	255	256	257	258	259		
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V	
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V	
DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	V	
Maximum Reverse Leakage, total bridge @ rated V_R $T_A = 25^\circ\text{C}$	5.0							μA	
$T_A = 125^\circ\text{C}$	500							μA	
Maximum Forward Voltage Drop, per bridge @ 3.14 A	1.1							V	
I^2t rating for fusing $t < 8.35$ ms	15							A^2Sec	
Typical Junction Capacitance, per leg $V_R = 4.0$ V, $f = 1.0$ MHz	25							pF	

Typical Characteristics

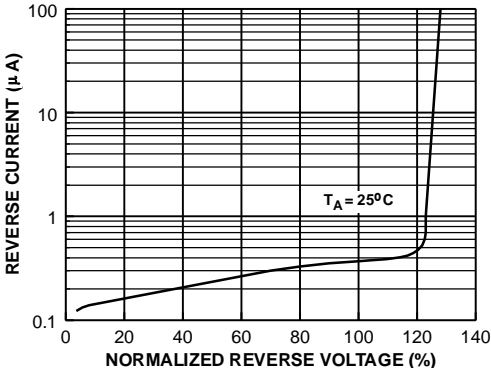
Output Current vs. Ambient Temperature



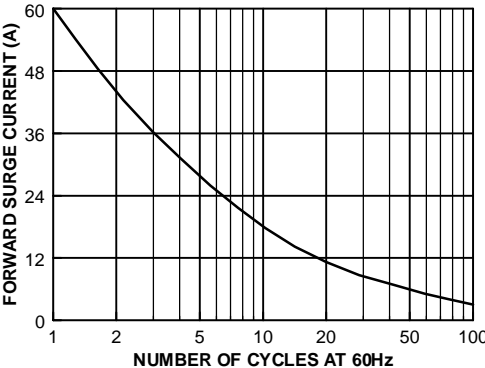
Forward Characteristics



Reverse Characteristics



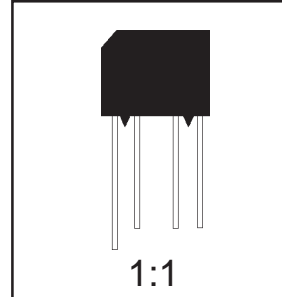
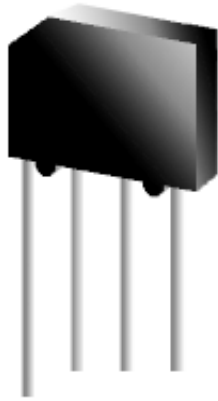
Non-Repetitive Surge Current



KBPM Package Dimensions



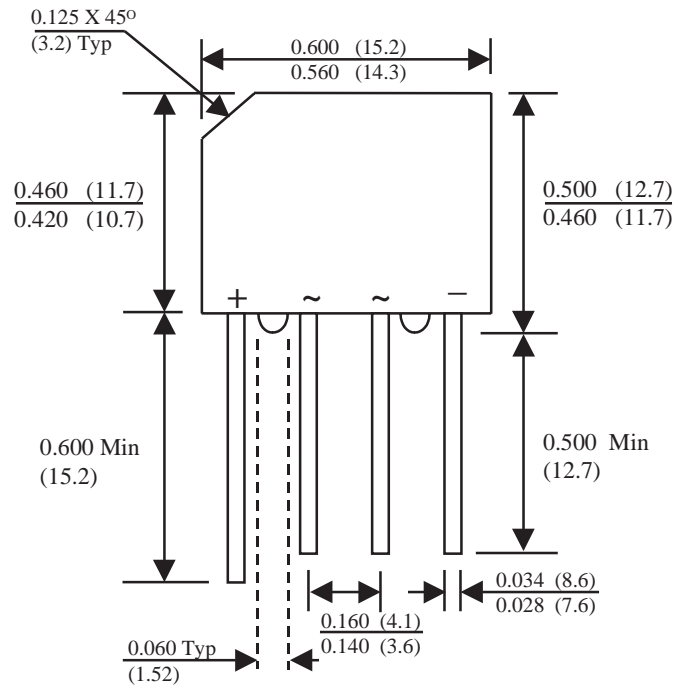
KBPM (FS PKG Code R1)



Scale 1:1 on letter size paper

Dimensions shown below are in:
inches [millimeters]

Part Weight per unit (gram): 1.7



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E ² CMOS™	PowerTrench®	VCX™
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FACT Quiet Series™	QS™	
FAST®	Quiet Series™	
FASTr™	SuperSOT™-3	
GTO™	SuperSOT™-6	

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