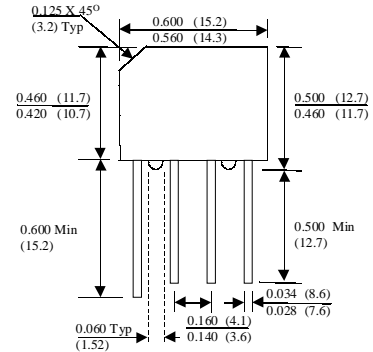


## 2KBP005M/3N253 - 2KBP10M/3N259

### Features

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



### 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 $25^\circ\text{C}$	4.7 33	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,** per leg	30	$^\circ\text{C}/\text{W}$
$T_{\text{stg}}$	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.

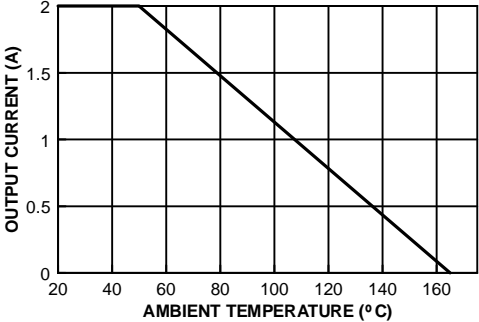
\*\* Device mounted on PCB with  $0.47 \times 0.47''$  (12 x 12 mm).

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

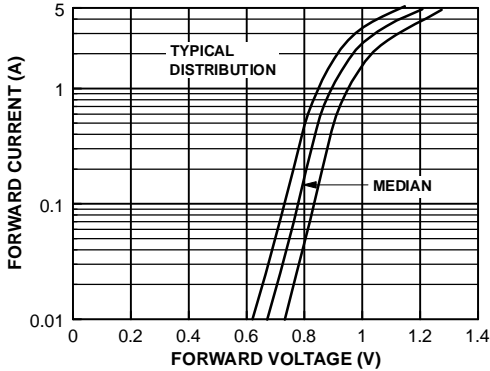
Parameter	Device							Units
	005M	01M	02M	04M	06M	08M	10M	
	253	254	255	256	257	258	259	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated $V_R$ )	50	100	200	400	600	800	1000	V
Maximum Reverse Leakage,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

Typical Characteristics

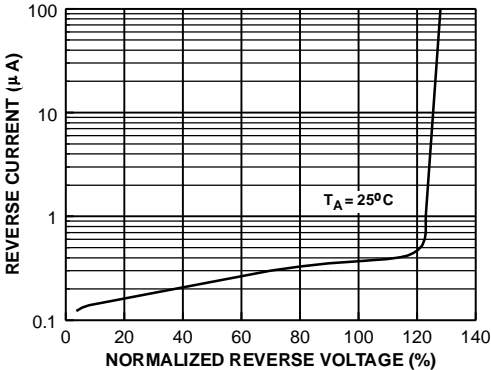
Output Current vs. Ambient Temperature



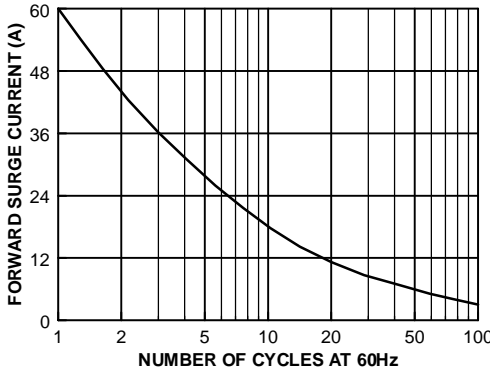
Forward Characteristics



Reverse Characteristics



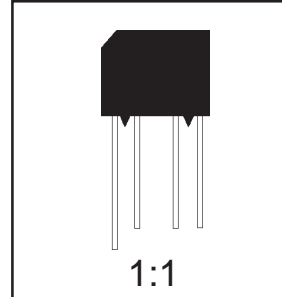
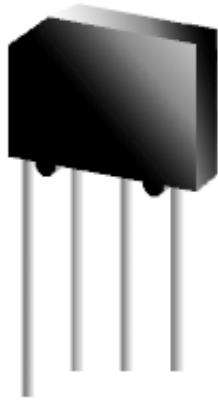
Non-Repetitive Surge Current



# KBPM Package Dimensions



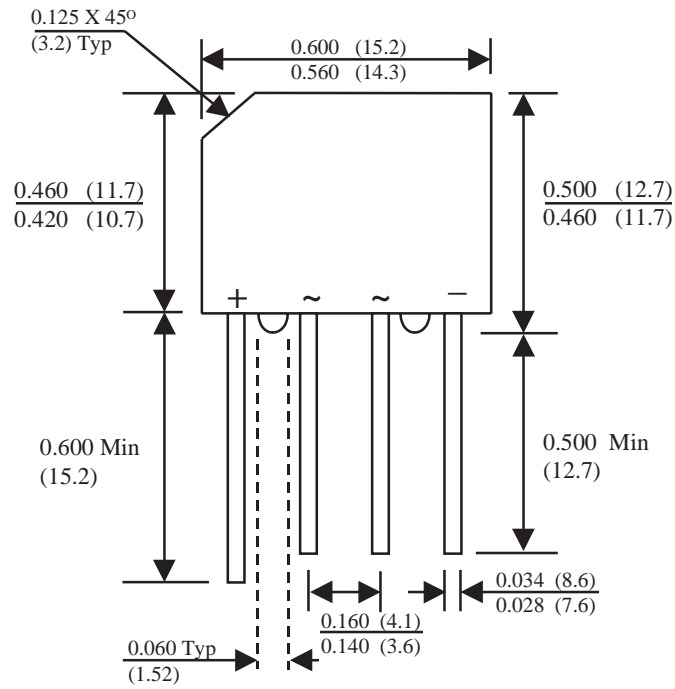
## KBPM (FS PKG Code R1)



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 <sup>2</sup> CMOS™	PowerTrench®	VCX™
FACT™	QFET™	
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FAST®	Quiet Series™	
FASTr™	SuperSOT™-3	
GTO™	SuperSOT™-6	

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