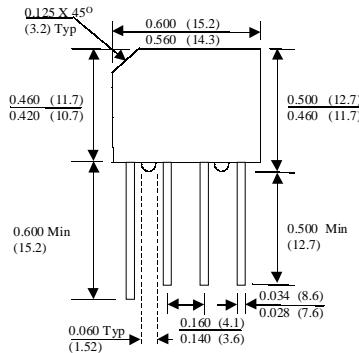


2KBP005M/3N253 - 2KBP10M/3N259

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_0	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	$^\circ\text{C}$

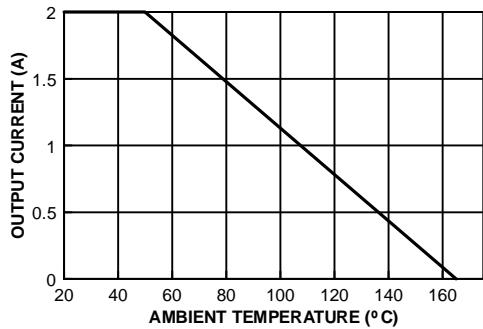
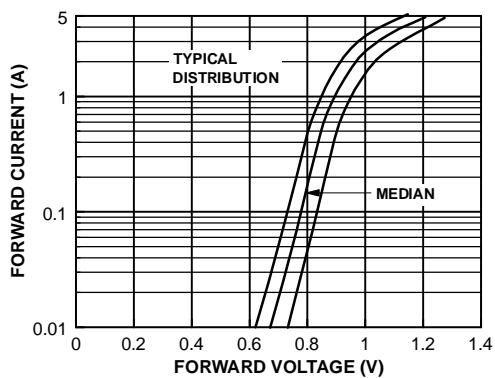
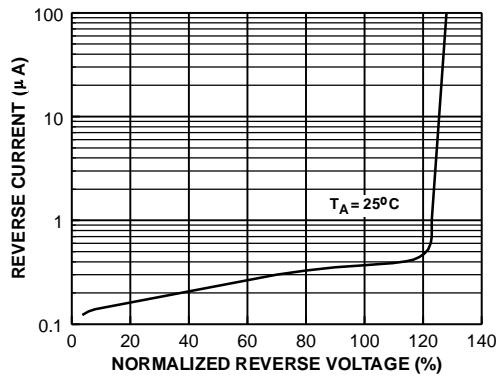
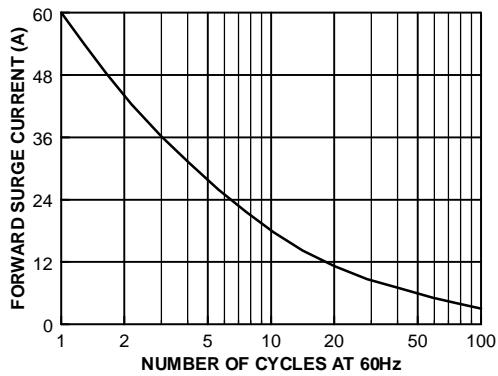
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**Device mounted on PCB with 0.47×0.47 " (12 x 12 mm).

Electrical Characteristics

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

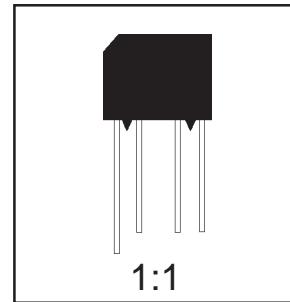
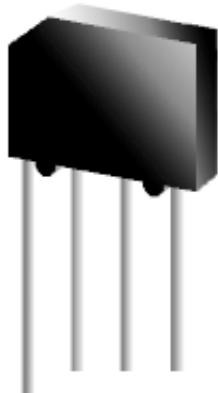
Parameter	Device							Units
	005M	01M	02M	04M	06M	08M	10M	
	253	254	255	256	257	258	259	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	V
Maximum Reverse Leakage, total bridge @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$				5.0 500				μA 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

Bridge Rectifiers
(continued)**Typical Characteristics****Output Current vs.
Ambient Temperature****Forward Characteristics****Reverse Characteristics****Non-Repetitive Surge Current**

KBPM Package Dimensions

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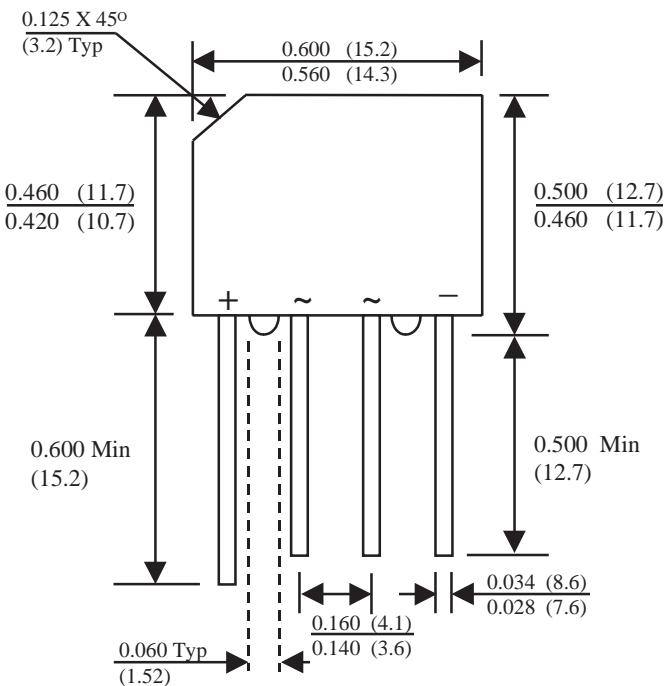
KBPM (FS PKG Code R1)



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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CROSSVOLT TM	POP TM	UHC TM
E ² CMOS TM	PowerTrench [®]	VCX TM
FACT TM	QFET TM	
FACT Quiet Series TM	QST TM	
FAST [®]	Quiet Series TM	
FAST TM	SuperSOT TM -3	
GTO TM	SuperSOT TM -6	

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