

2KBP005M/3N253 - 2KBP10M/3N259

Features

- Surge overload rating: 60 amperes peak.
- Reliable low cost construction utilizing molded plastic technique.
- UL certified, UL #E111753.



2.0 Ampere Bridge Rectifiers

Absolute Maximum Ratings*

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

Symbol	Parameter	Value	Units
$I_{F(AV)}$	Average Rectified Current	2.0	A
I_{FSM}	Non-repetitive Peak Forward Surge Current	60	A
P_D	Total Device Dissipation	4.7	W
	Derate above 25°C	33	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 $0.47 \times 0.47"$ ($12 \times 12 \text{ mm}$).

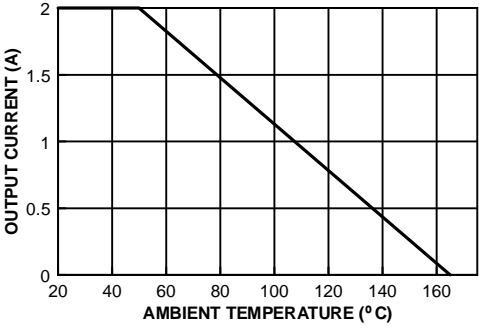
Electrical Characteristics

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

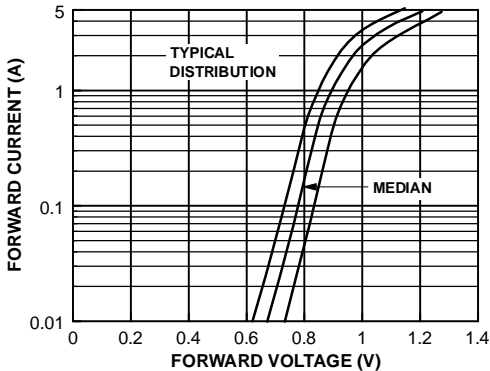
Symbol	Parameter	Device							Units
		005M	01M	02M	04M	06M	08M	10M	
		253	254	255	256	257	258	259	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
V_{RMS}	Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
V_R	DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000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

Typical Characteristics

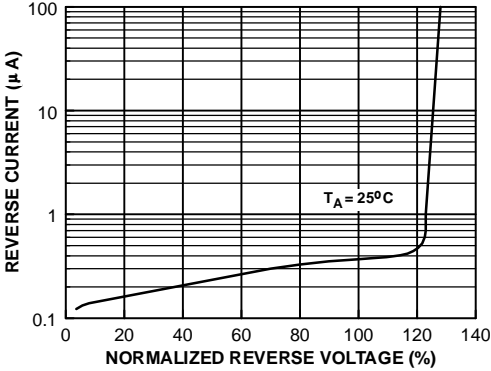
Output Current vs. Ambient Temperature



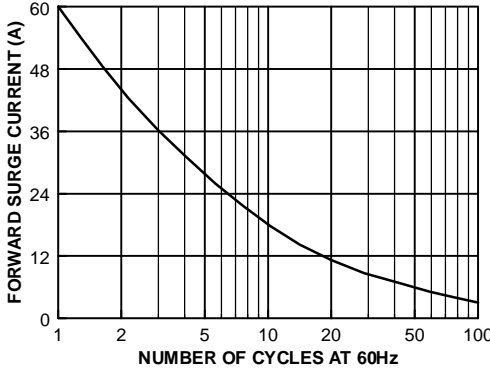
Forward Characteristics



Reverse Characteristics



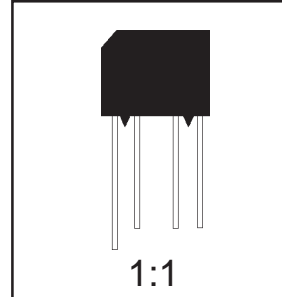
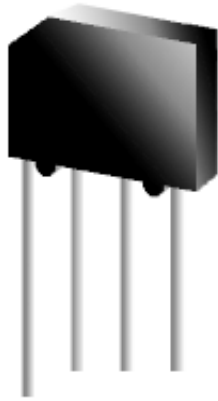
Non-Repetitive Surge Current



KBPM Package Dimensions



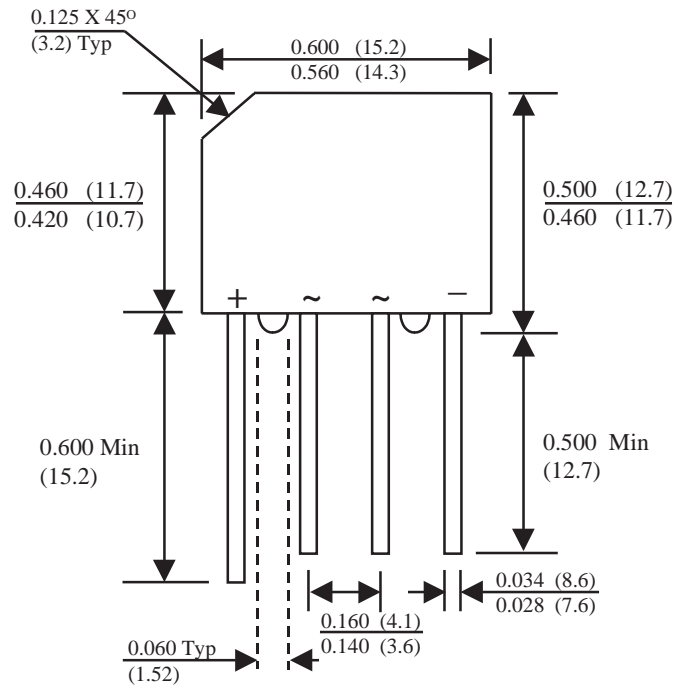
KBPM (FS PKG Code R1)



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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