









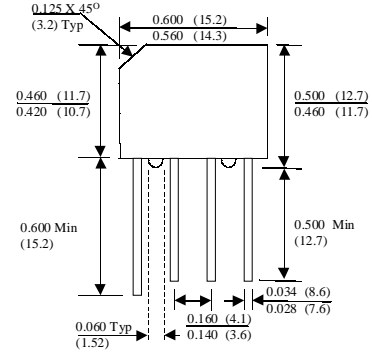
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2KBPM005M/3N253 - 2KBPM10M/3N259

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°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).

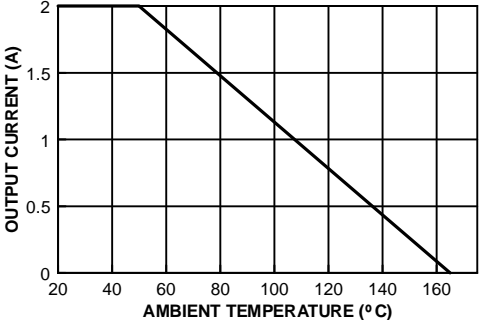
Electrical Characteristics

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

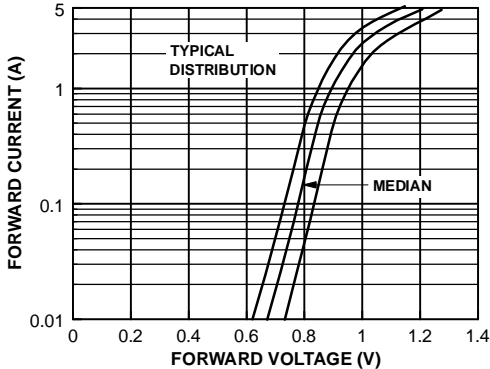
Parameter	Device							Units
	M005M	M01M	M02M	M04M	M06M	M08M	M10M	
	253	254	255	256	257	258	259	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V_R)	50	100	200	400	600	800	1000	V
Maximum Reverse Leakage, total bridge @ rated V_R $T_A = 25^\circ\text{C}$	5.0							μA
								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

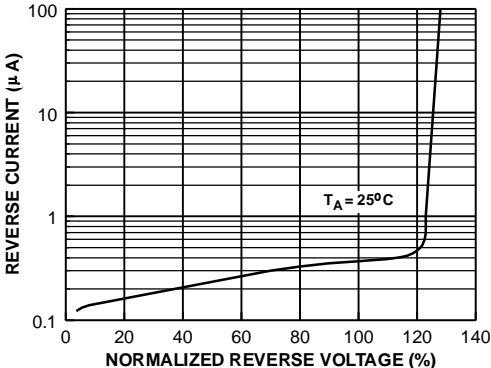
Output Current vs. Ambient Temperature



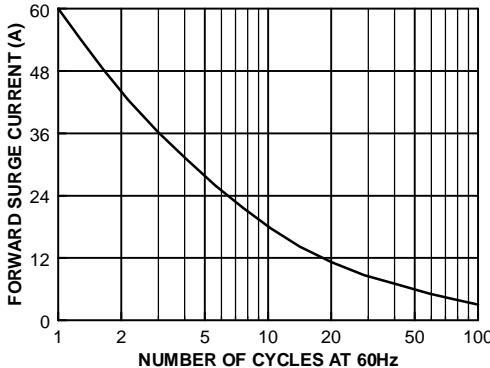
Forward Characteristics



Reverse Characteristics



Non-Repetitive Surge Current



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FACT™	QS™
FACT Quiet Series™	Quiet Series™
FAST®	SuperSOT™-3
FASTr™	SuperSOT™-6
GTO™	SuperSOT™-8
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Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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