

2KBP005M/3N253 - 2KBP10M/3N259

Bridge Rectifiers

Features

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



Absolute Maximum Ratings * T_a = 25°C unless otherwise noted

Symbol	Parameter	Value							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 _{F(AV)}	Average Rectified Forward Current, @ T _A = 50°C	2.0							A
I _{FSM}	Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave	60							A
T _{STG}	Storage Temperature Range	-55 to +150							°C
T _J	Junction Temperature	-55 to +150							°C

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

Thermal Characteristics

Symbol	Parameter	Value	Units
P _D	Power Dissipation	4.7	W
R _{θJA}	Thermal Resistance, Junction to Ambient, * per leg	18	°C/W

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

Electrical Characteristics T_C = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _F	Forward Voltage, per element @ 3.14A	1.1	V
I _R	Reverse Current, per element @ Rated V _R T _A = 25°C T _A = 125°C	50 500	μA μA
	I ² t Rating for Fusing t < 8.35ms	15	A ² s
C _T	Total Capacitance, per leg V _R = 4.0 V, f = 1.0 MHz	25	pF

Typical Performance Characteristics

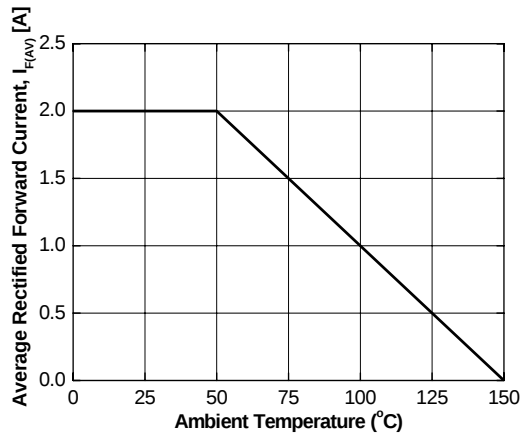


Figure 1. Forward Current Derating Curve

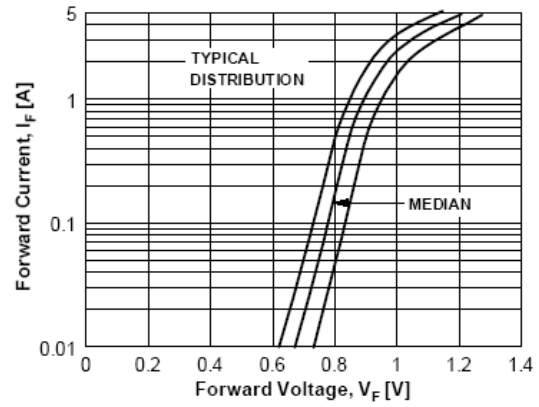


Figure 2. Forward Voltage Characteristics

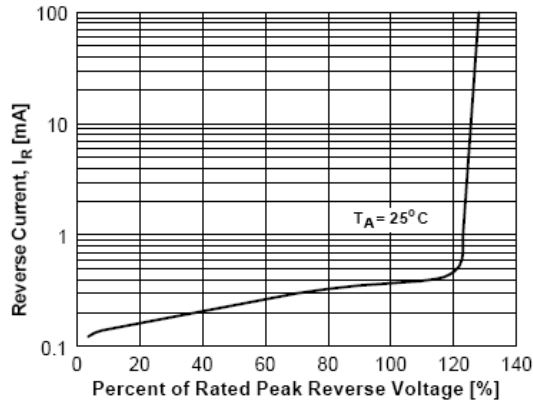


Figure 3. Reverse Current vs Reverse Voltage

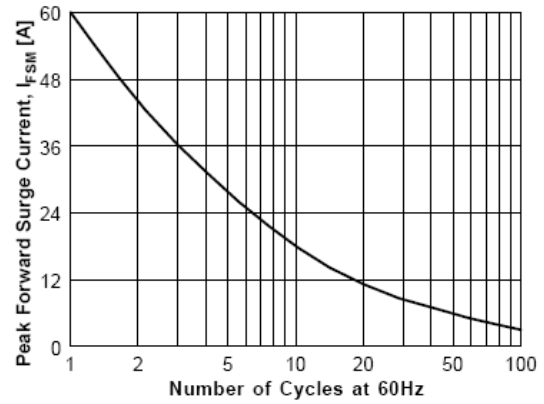


Figure 4. Non-Repetitive Surge Current

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Rev. 118