

# M3FE60

## General Rectifying Diodes

600V, 3.0A

### Feature

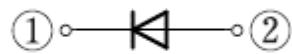
- Small SMD
- High ESD Capability
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

### OUTLINE

Package (House Name): M2F  
 Package (JEDEC Code): DO-214AA similar



### Equivalent circuit



### Absolute Maximum Ratings (unless otherwise specified : $T_{l}=25^{\circ}\text{C}$ )

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	$T_{stg}$		-55 to 150	$^{\circ}\text{C}$
Junction temperature	$T_j$		-55 to 150	$^{\circ}\text{C}$
Repetitive peak reverse voltage	$V_{RRM}$		600	V
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, $T_l=76^{\circ}\text{C}$	3	A
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, $T_l=90^{\circ}\text{C}$	2.5	A
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, On glass-epoxy substrate, $T_a=25^{\circ}\text{C}$ $\ddagger$	1.3	A
Surge forward current	$I_{FSM}$	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^{\circ}\text{C}$	90	A
Surge forward current	$I_{FSM1}$	$tp=1\text{ms}$ , sine wave, Non-repetitive, peak value, $T_j=25^{\circ}\text{C}$	230	A

$\ddagger$  :See the original Specifications

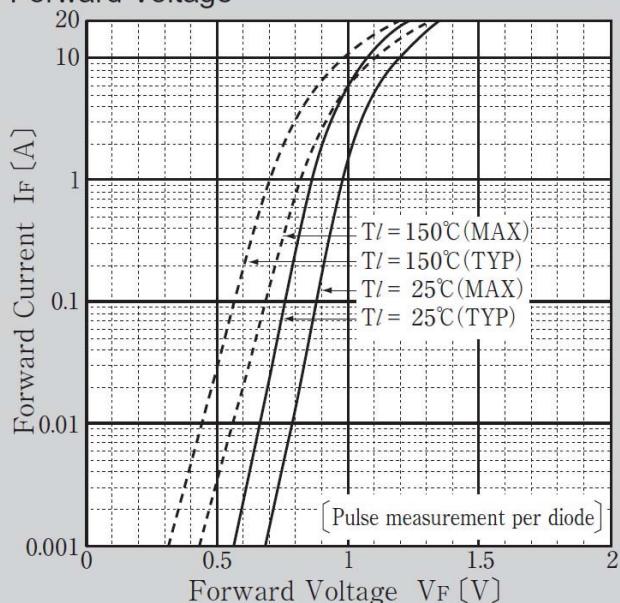
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	$V_F$	IF=3A, Pulse measurement			1.05	V
Reverse current	$I_R$	VR=600V, Pulse measurement			10	$\mu A$
Electro static dischange Capability	$V_{ESD}$	C=330pF, R=330Ω, Polarity±, Aerial discharge		25		kV
Thermal resistance	$R_{th(j-l)}$	Junction to lead			25	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate	※		110	°C/W

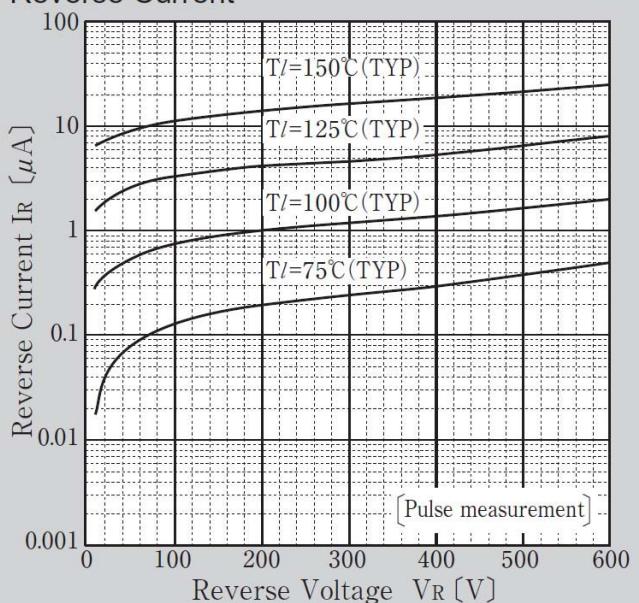
※ :See the original Specifications

## CHARACTERISTIC DIAGRAMS

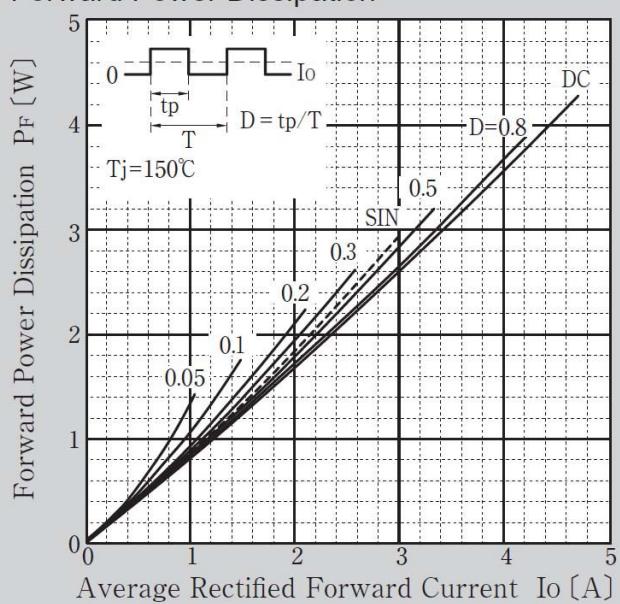
Forward Voltage



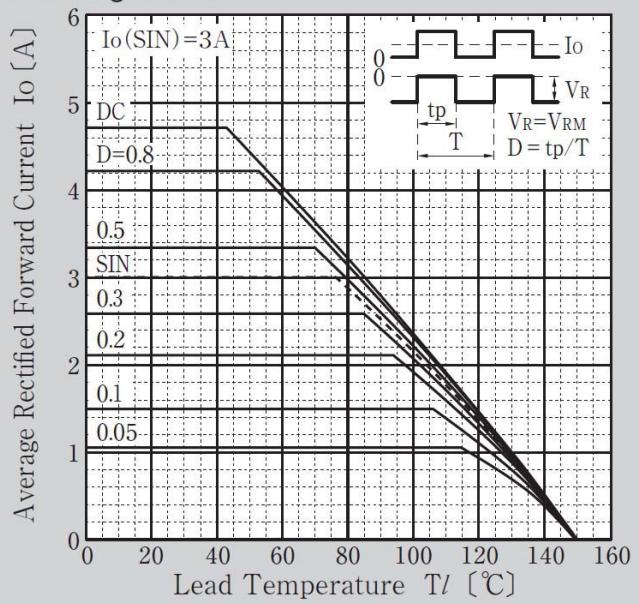
Reverse Current



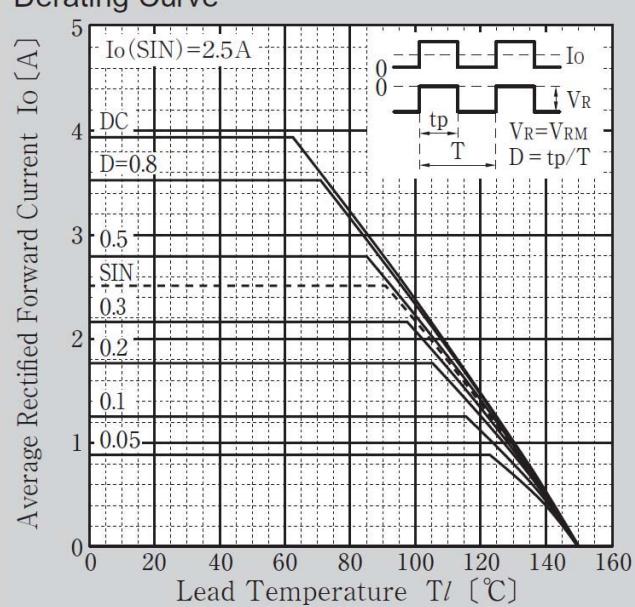
Forward Power Dissipation



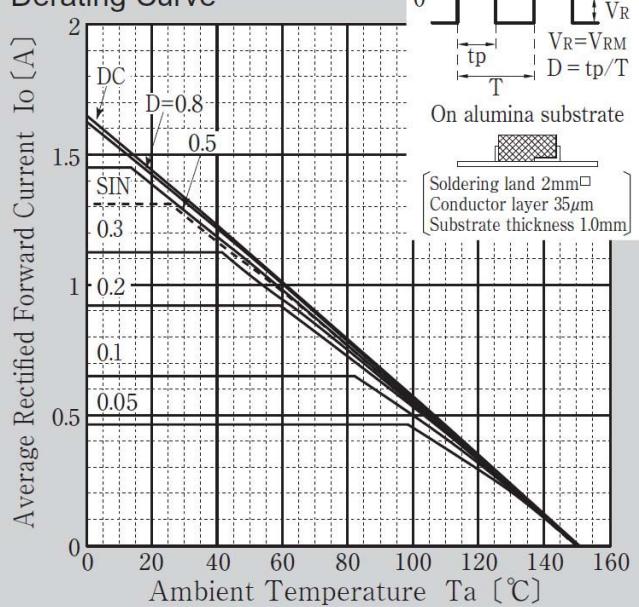
Derating Curve



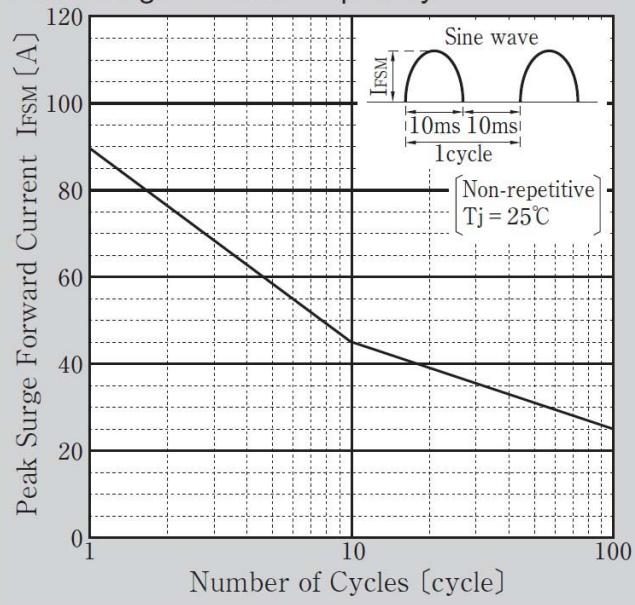
### Derating Curve



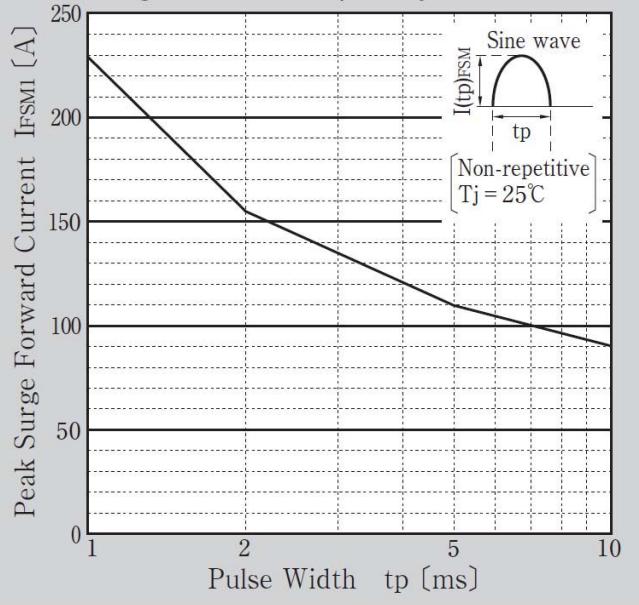
### Derating Curve

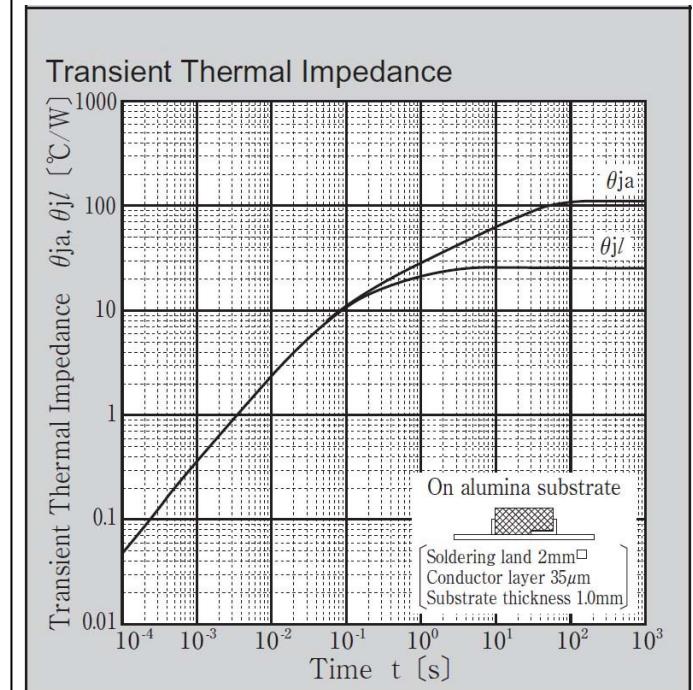
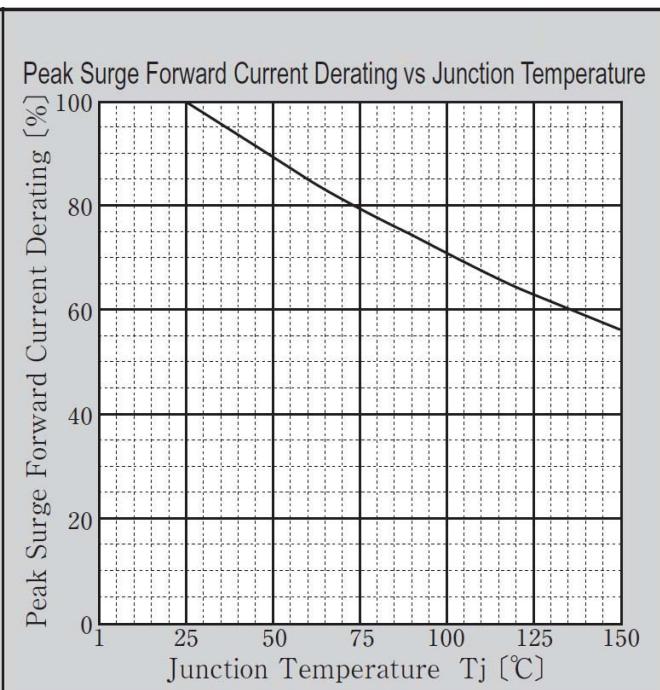


### Peak Surge Forward Capability



### Peak Surge Forward Capability





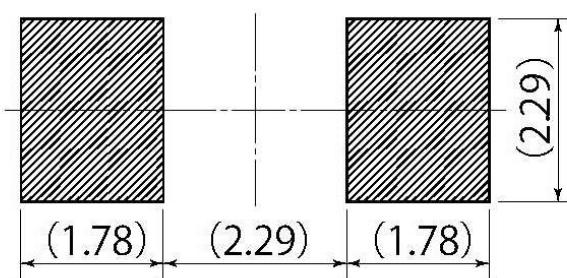
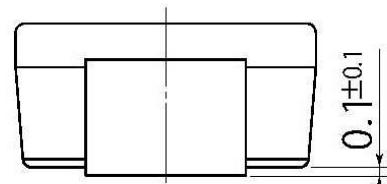
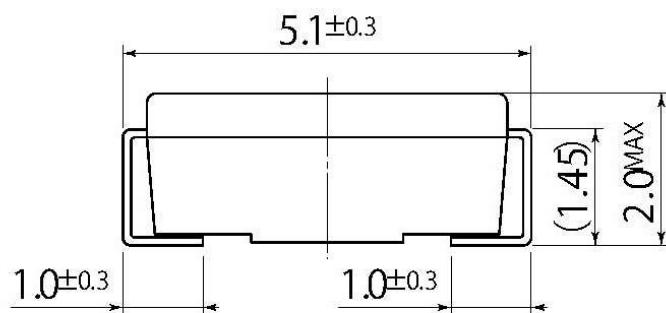
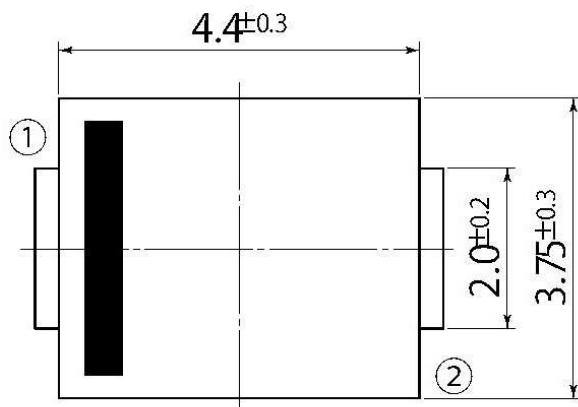
## Outline Dimensions

unit:mm

scale: 10/1

B6

JEDEC Code	DO-214AA similar
JEITA Code	—
House Name	M2F



Referential Soldering Pad

- Optimize soldering pad to the board design and soldering condition.

## Notes

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