

M3FE40

General Rectifying Diodes

400V, 3A

Feature

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

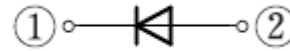
OUTLINE

Package (House Name): M2F

Package (JEDEC Code): DO-214AA similar



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T _{stg}		-55 to 150	°C
Junction temperature	T _j		-55 to 150	°C
Repetitive peak reverse voltage	V _{RRM}		400	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=76°C ※	3	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=32°C ※	1.2	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, T _j =25°C	75	A
Current squared time	I ² t	1ms ≤ tp < 10ms, T _j =25°C	28	A ² s

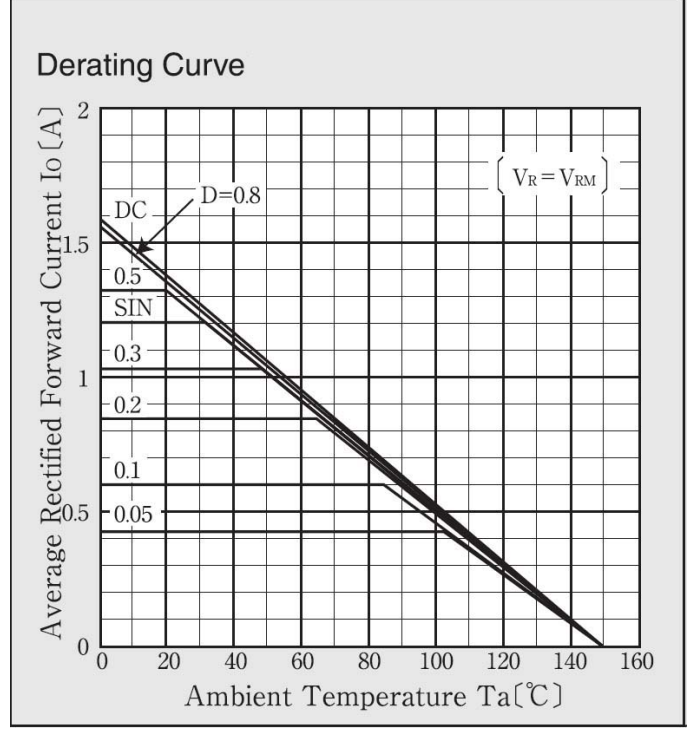
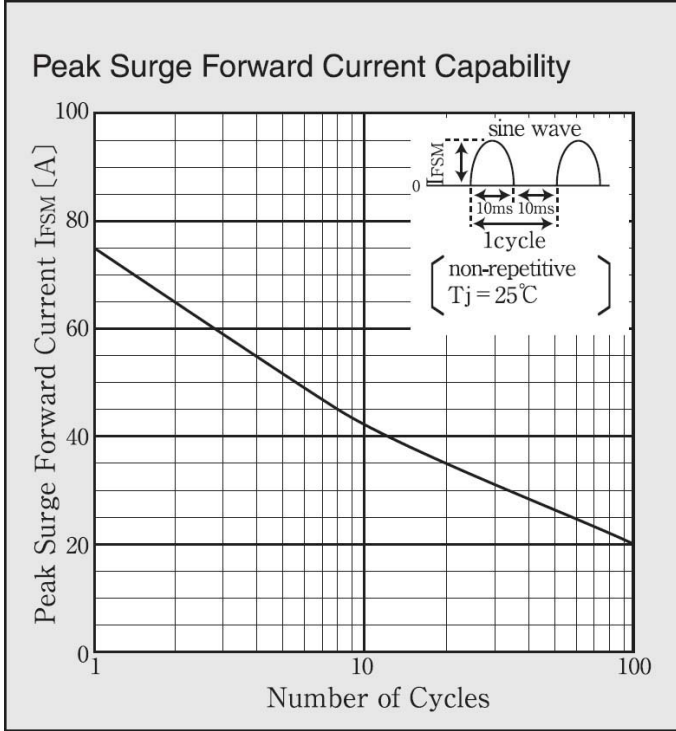
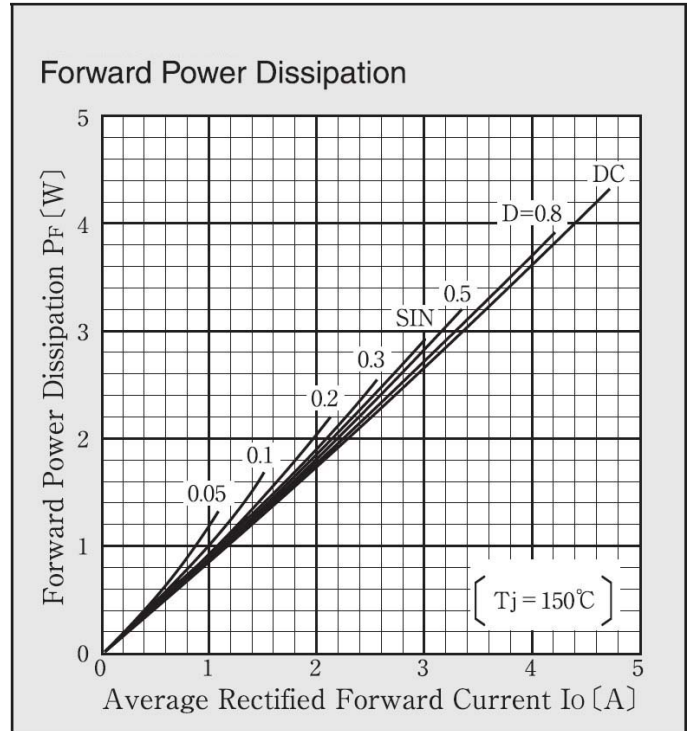
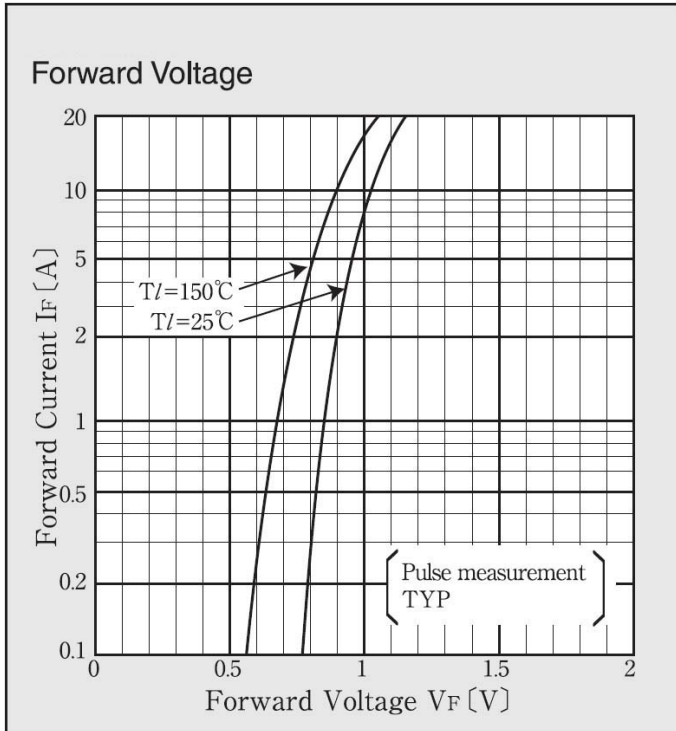
※ : See the original Specifications

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

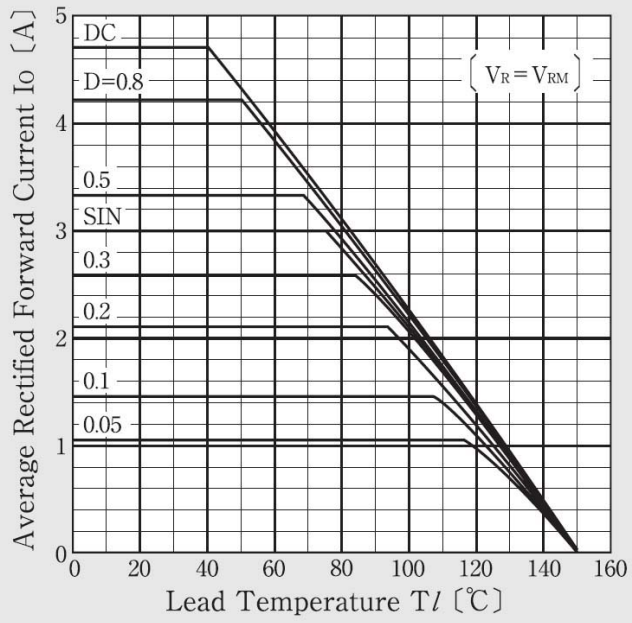
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=3A$, Pulse measurement			1.1	V
Reverse current	I_R	$V_R=400V$, Pulse measurement			10	μA
Electro static discharge Capability	V_{ESD}	$C=150pF$, $R=150\Omega$, Polarity \pm , Aerial discharge		30		kV
Thermal resistance	$R_{th(j-c)}$	Junction to case, On glass-epoxy substrate *			25	$^{\circ}C/W$
Thermal resistance	$R_{th(j-l)}$	Junction to lead, On glass-epoxy substrate *			25	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate *			110	$^{\circ}C/W$

* :See the original Specifications

CHARACTERISTIC DIAGRAMS

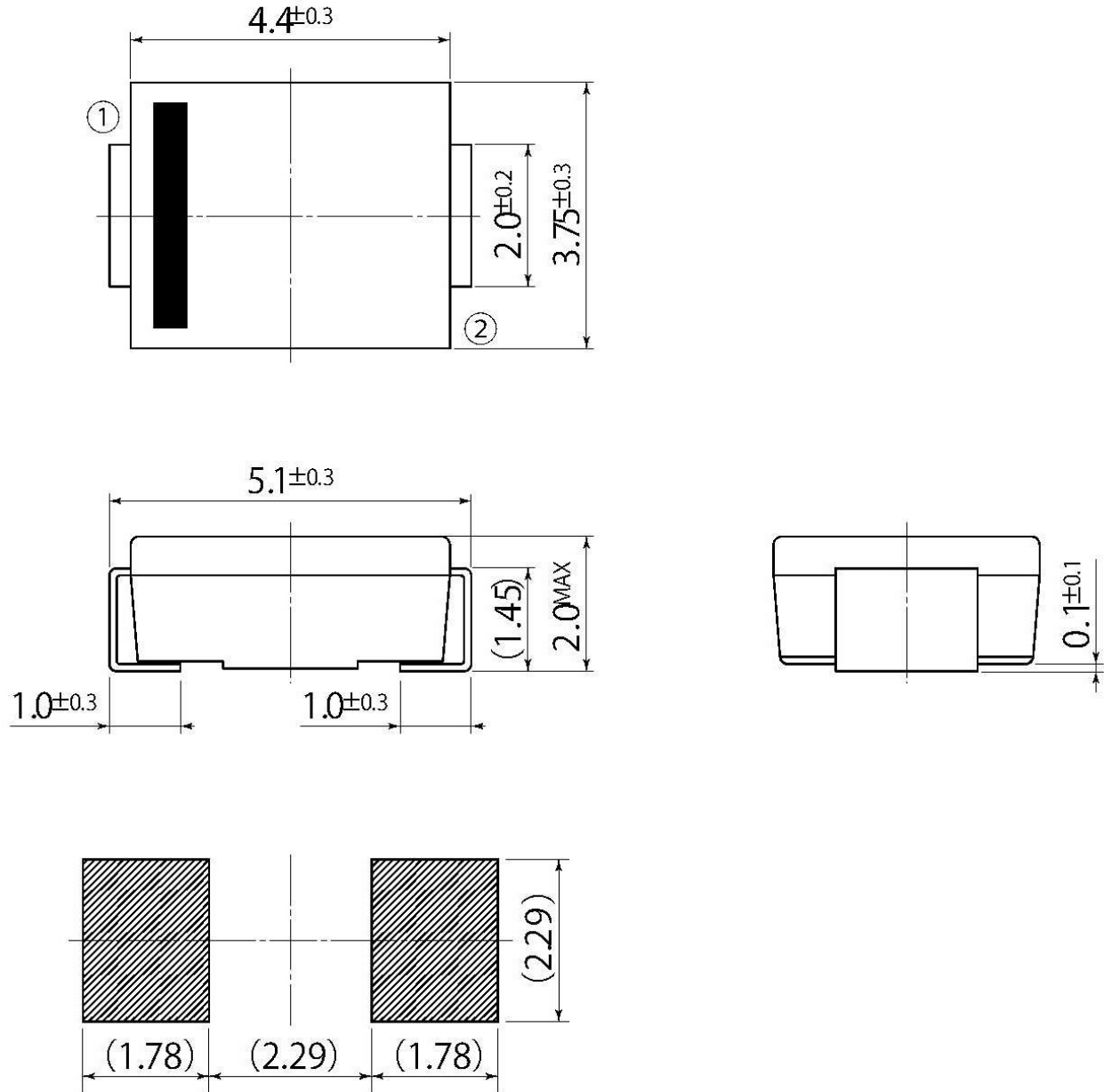


Derating Curve



B6

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



Referential Soldering Pad

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

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