

M3FE40
General Rectifying Diodes
400V, 3A

Feature

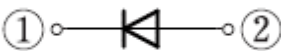
- Small SMD
- High ESD Capability
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

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 temperrature	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, Tj=25°C	75	A
Current squared time	I^2t	1ms≤tp<10ms, Tj=25°C	28	A ² s

※ :See the original Specifications

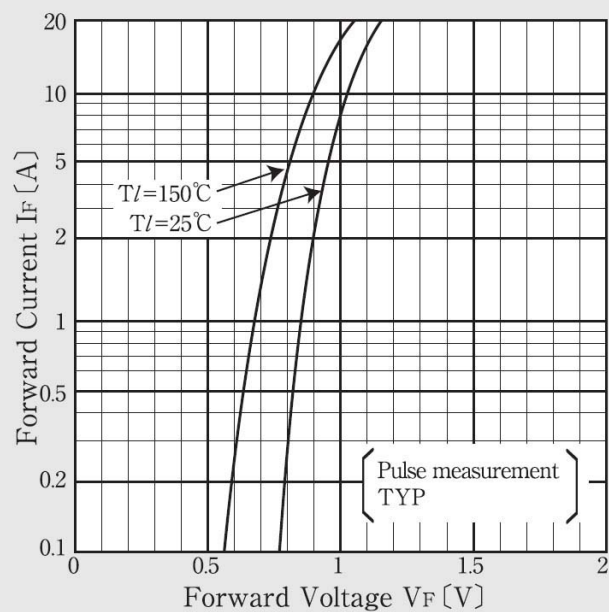
Electrical Characteristics (unless otherwise specified : Tl=25°C)

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

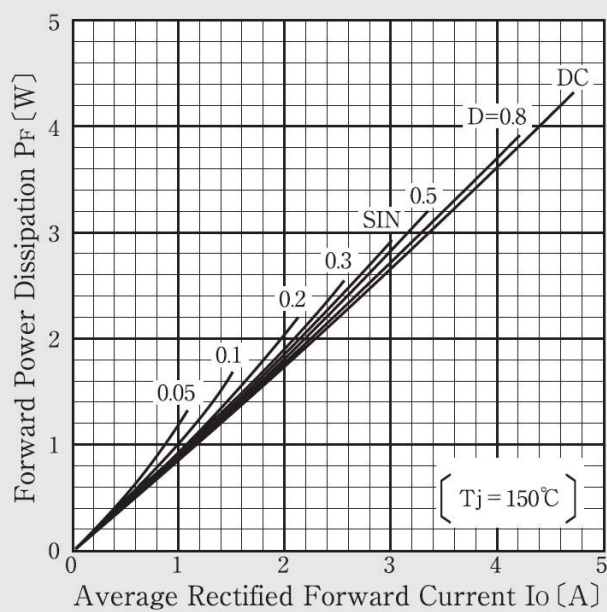
※ : See the original Specifications

CHARACTERISTIC DIAGRAMS

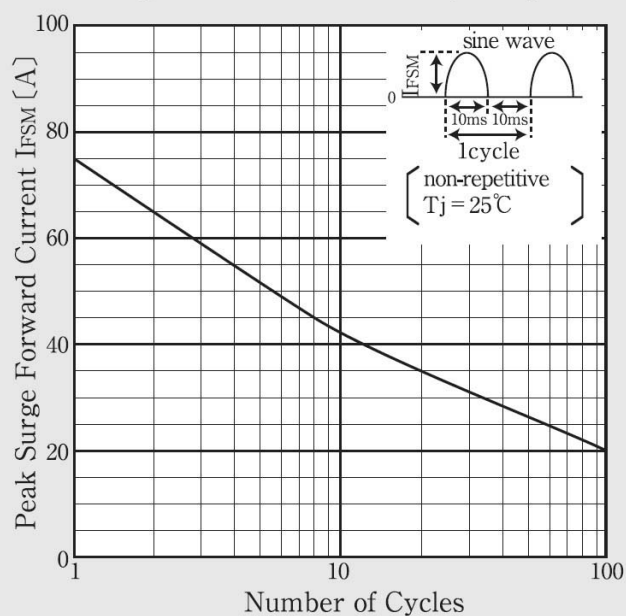
Forward Voltage



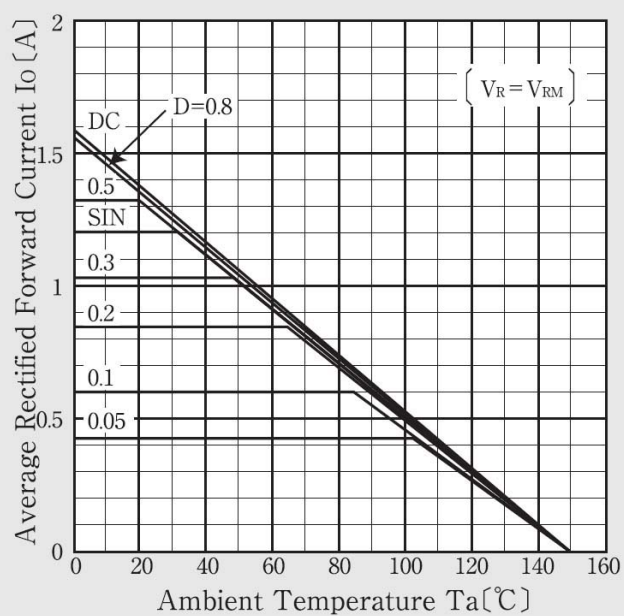
Forward Power Dissipation



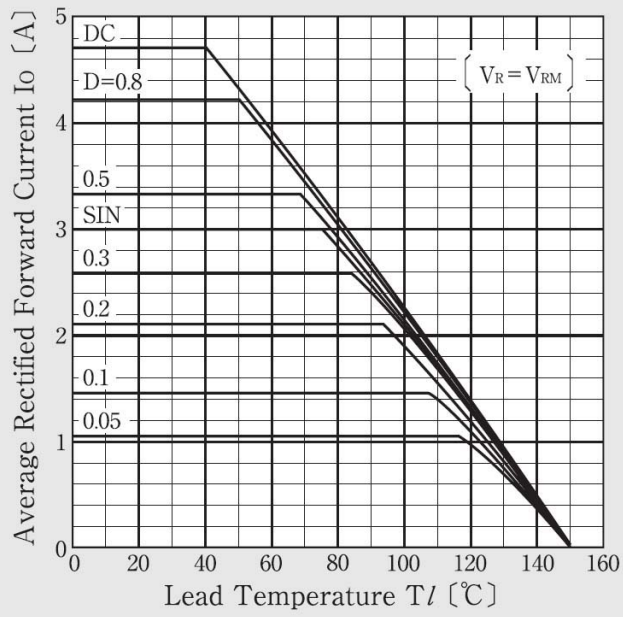
Peak Surge Forward Current Capability



Derating Curve

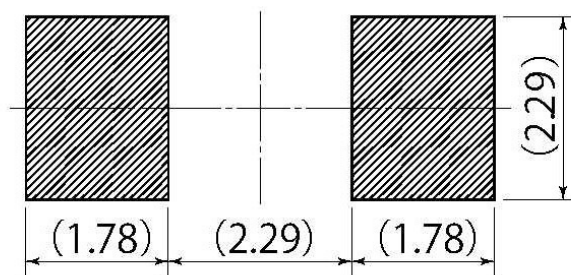
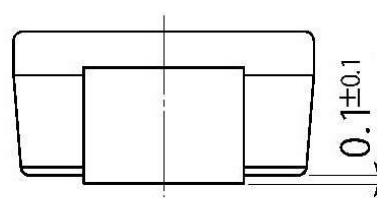
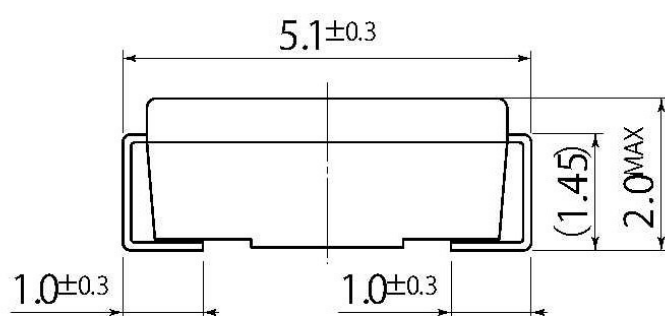
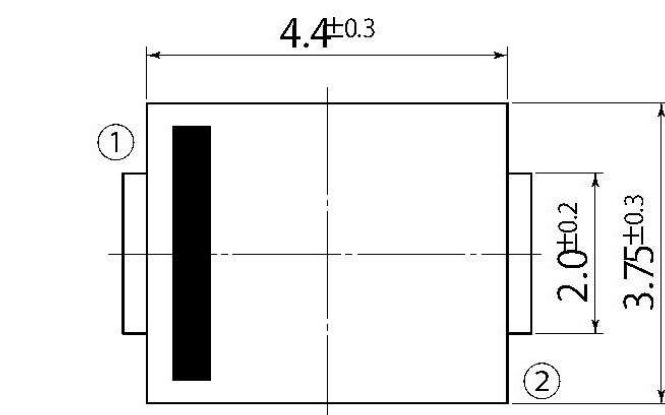


Derating Curve



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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