

M2FM3
Schottky Barrier Diodes
30V, 6A

Feature

- Small SMD
- High Recovery Speed
- Low V_F
- 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 : Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		30	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tc=99°C ※	6	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=91°C ※	6	A
Average forward current	$I_F(AV)$	50Hz, Sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	4.3	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25°C	120	A

※ :See the original Specifications

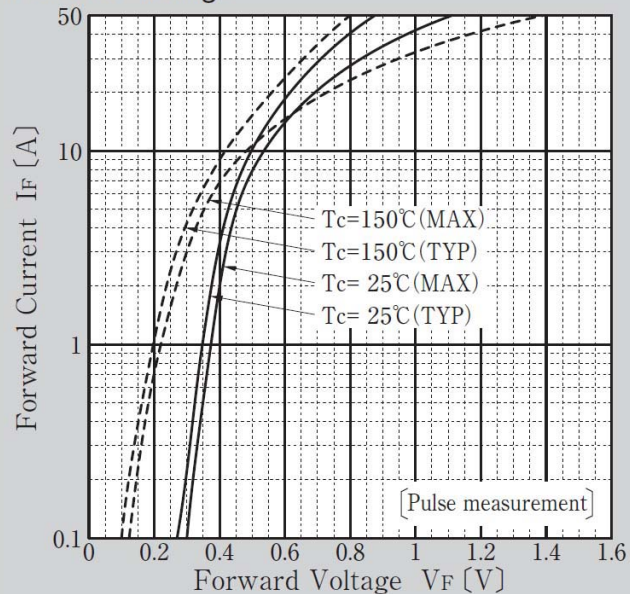
Electrical Characteristics (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=6A, Pulse measurement			0.46	V
Forward voltage	V_F	IF=2A, Pulse measurement			0.4	V
Reverse current	I_R	VR=30V, Pulse measurement			0.2	mA
Total capacitance	C_t	f=1MHz, VR=10V		240		pF
Thermal resistance	Rth(j-c)	Junction to case, On glass-epoxy substrate ※			14	°C/W
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate ※			16	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			55	°C/W

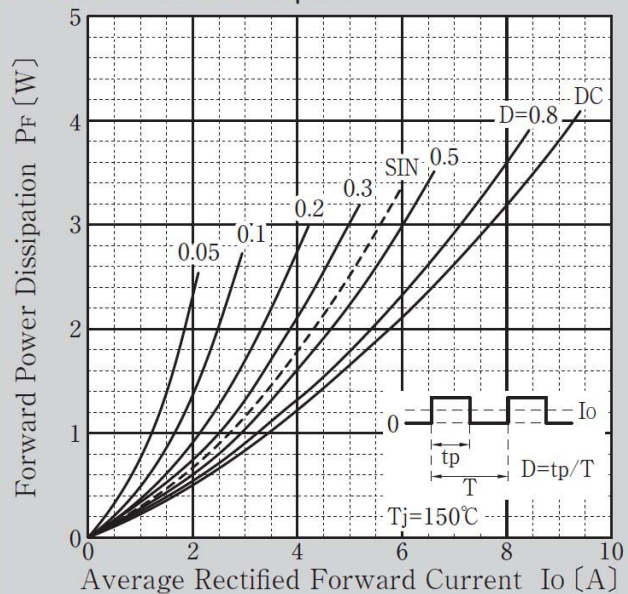
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

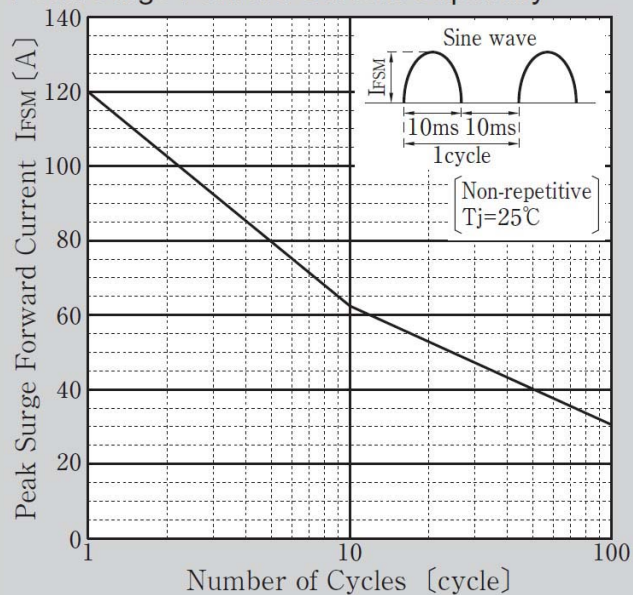
Forward Voltage



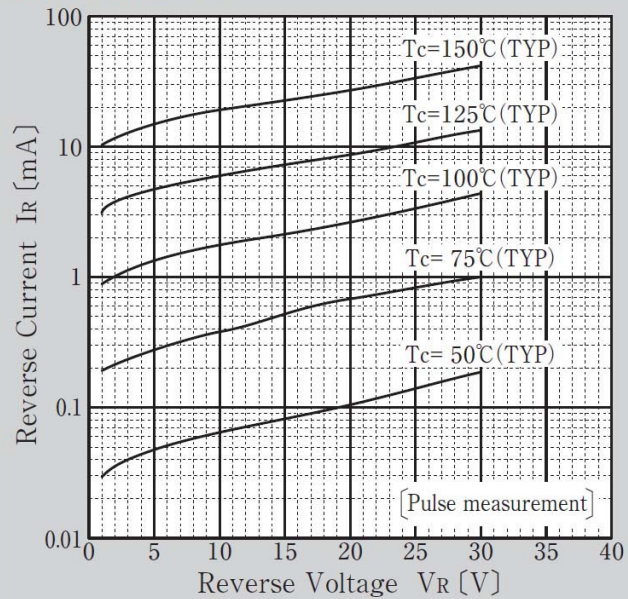
Forward Power Dissipation



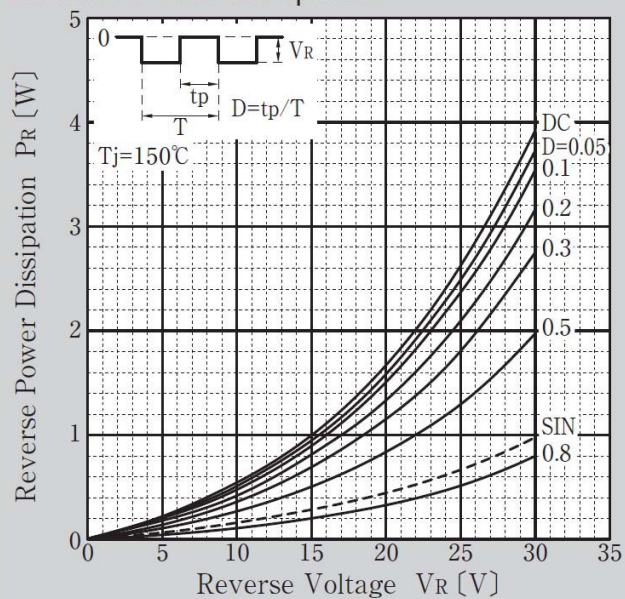
Peak Surge Forward Current Capability



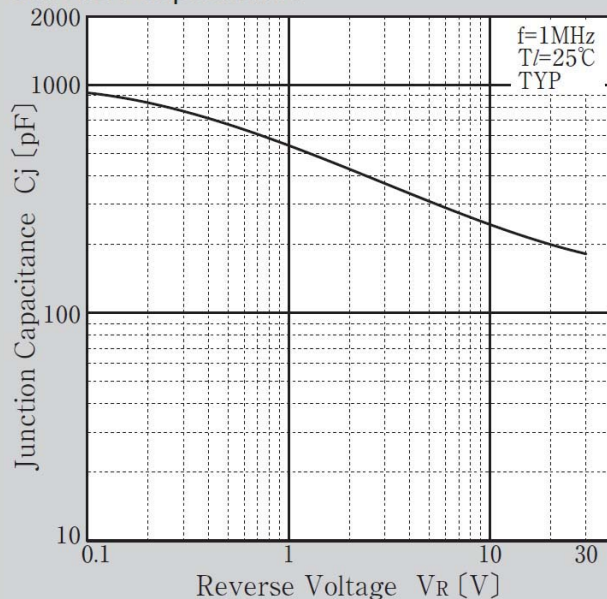
Reverse Current



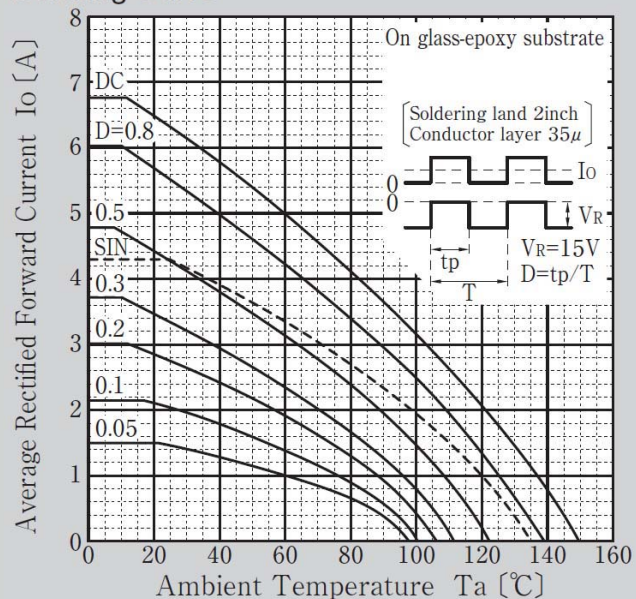
Reverse Power Dissipation



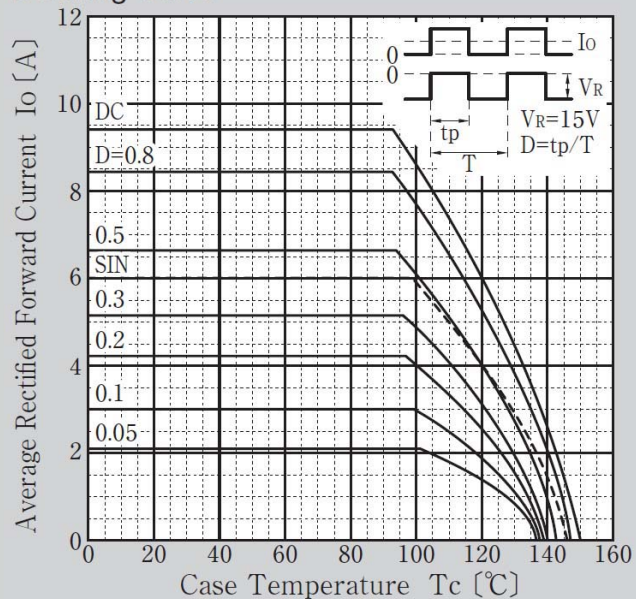
Junction Capacitance



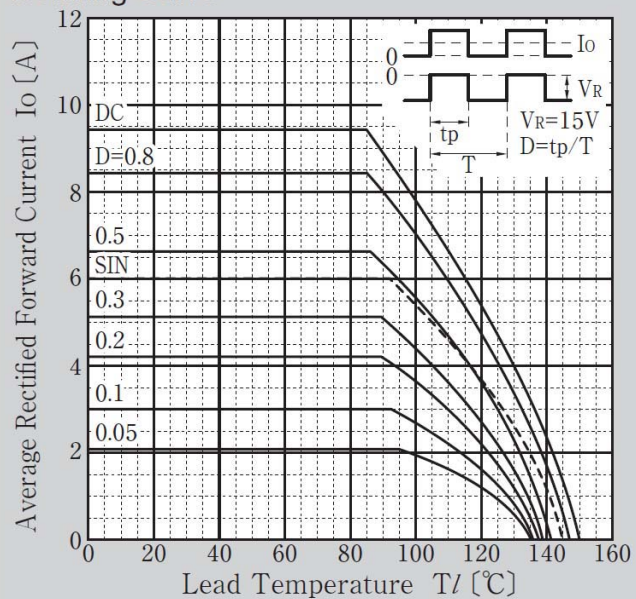
Derating Curve



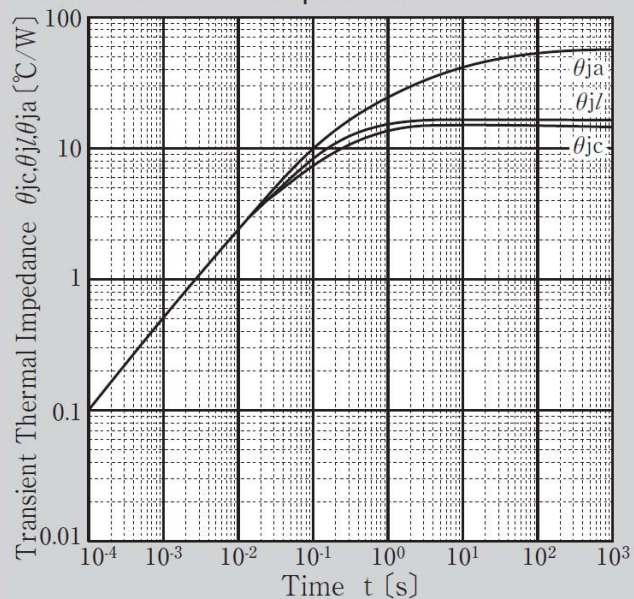
Derating Curve



Derating Curve

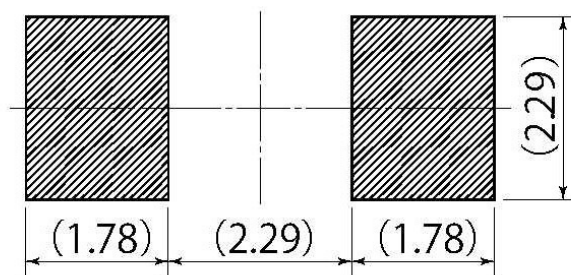
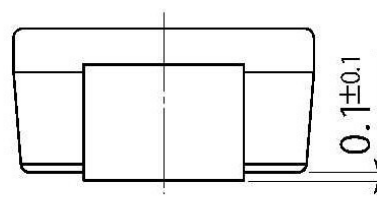
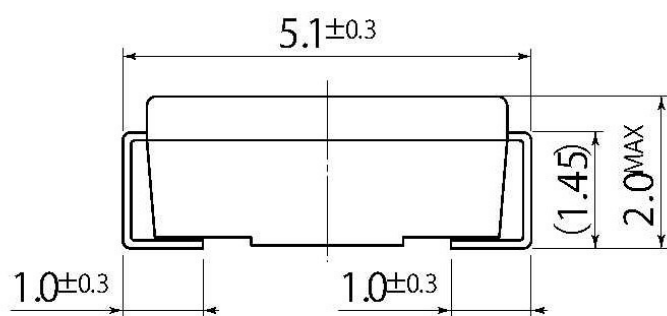
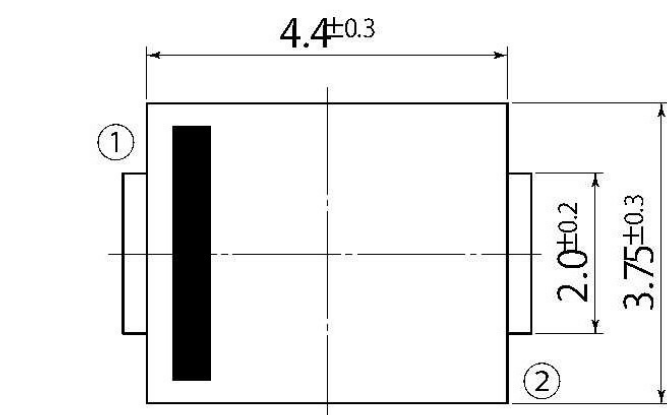


Transient Thermal Impedance



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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