

M2FM3

Schottky Barrier Diodes

30V, 6A

Feature

- Small SMD
- High Recovery Speed
- Low V_F
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

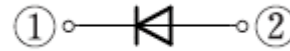
OUTLINE

Package (House Name): M2F

Package (JEDEC Code): DO-214AA similar



Equivalent circuit



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

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}		30	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, $T_c=99^\circ\text{C}$ *	6	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, $T_l=91^\circ\text{C}$ *	6	A
Average forward current	$I_F(AV)$	50Hz, Sine wave, Resistance load, On glass-epoxy substrate, $T_a=25^\circ\text{C}$ *	4.3	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, $T_j=25^\circ\text{C}$	120	A

* : See the original Specifications

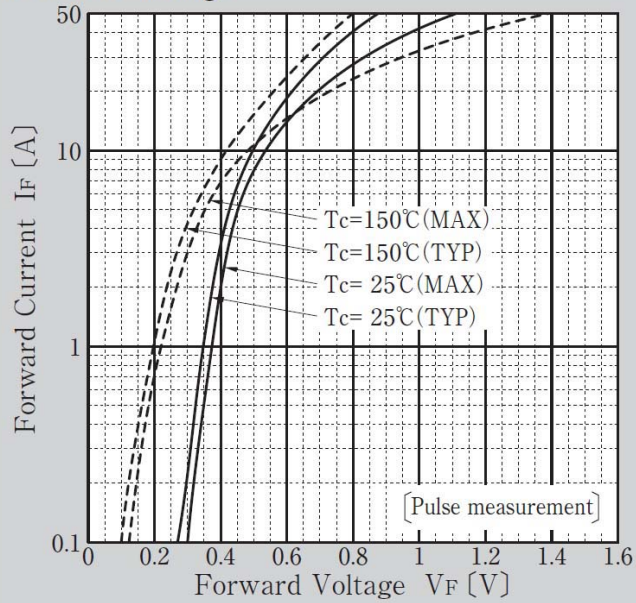
Electrical Characteristics (unless otherwise specified : Tc=25°C)

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	R _{th(j-c)}	Junction to case, On glass-epoxy substrate ※			14	°C/W
Thermal resistance	R _{th(j-l)}	Junction to lead, On glass-epoxy substrate ※			16	°C/W
Thermal resistance	R _{th(j-a)}	Junction to ambient, On glass-epoxy substrate ※			55	°C/W

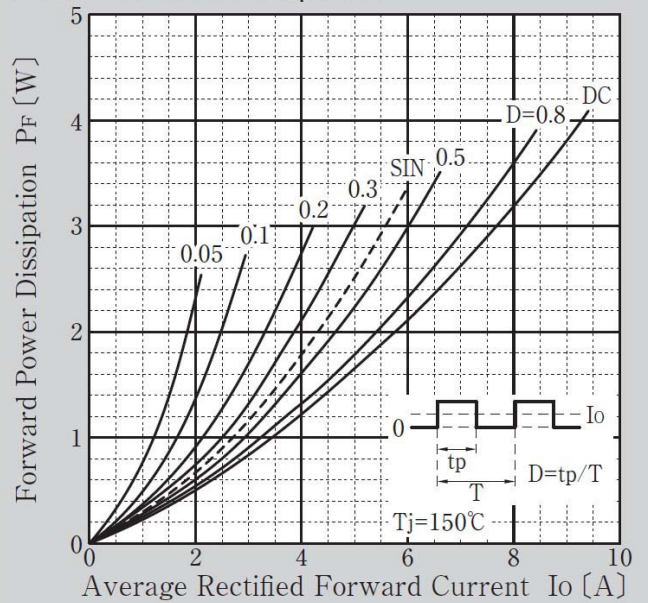
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

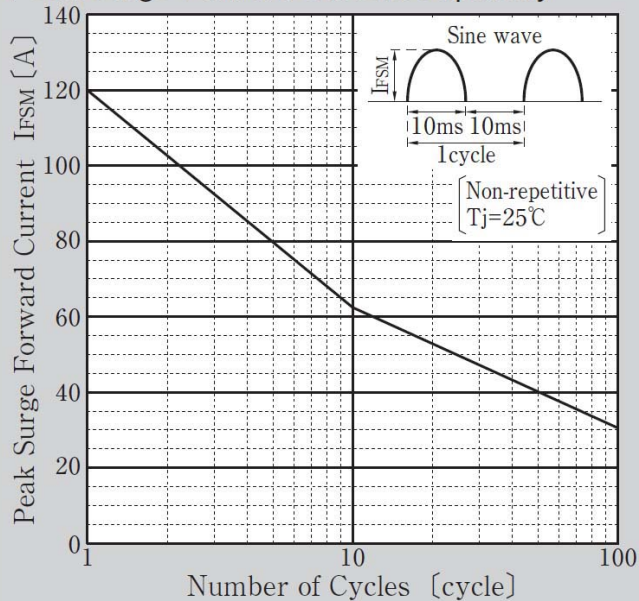
Forward Voltage



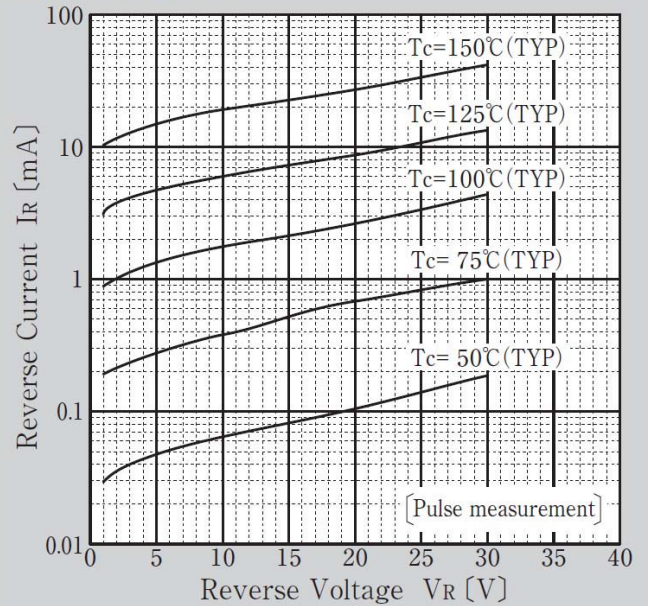
Forward Power Dissipation

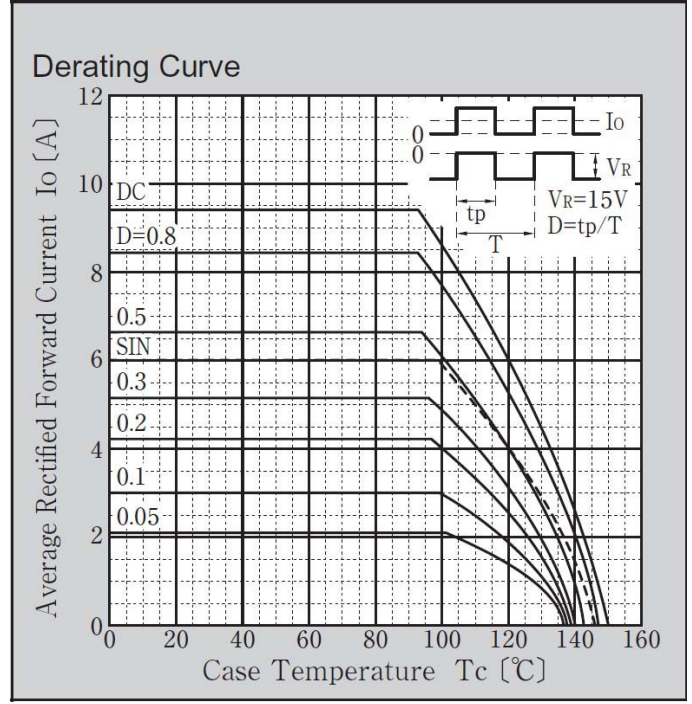
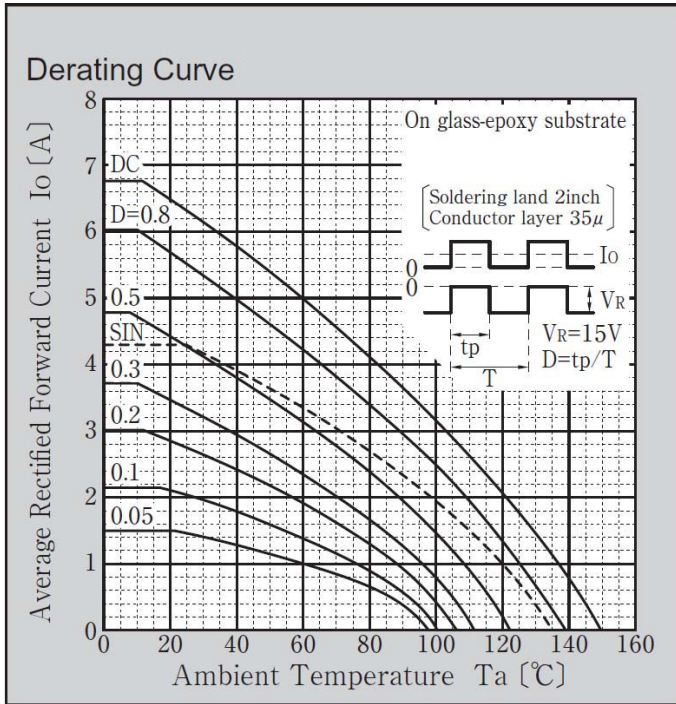
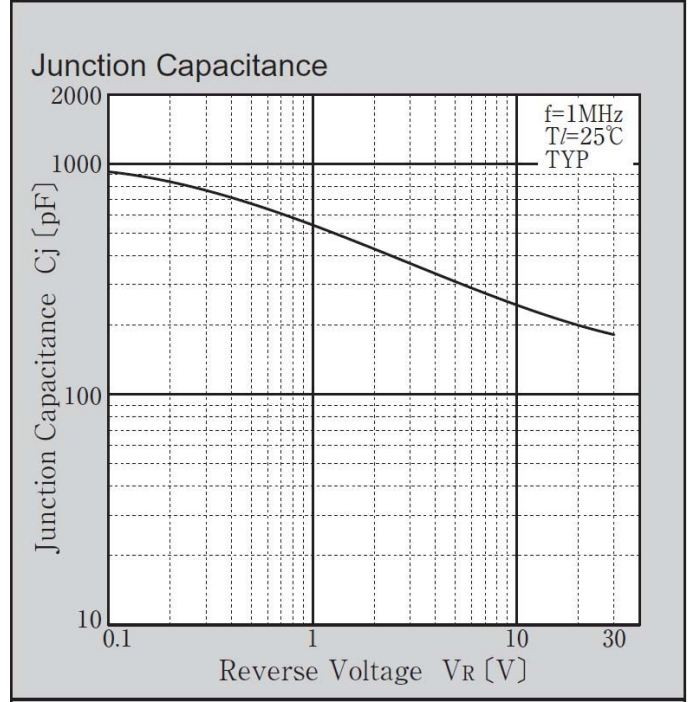
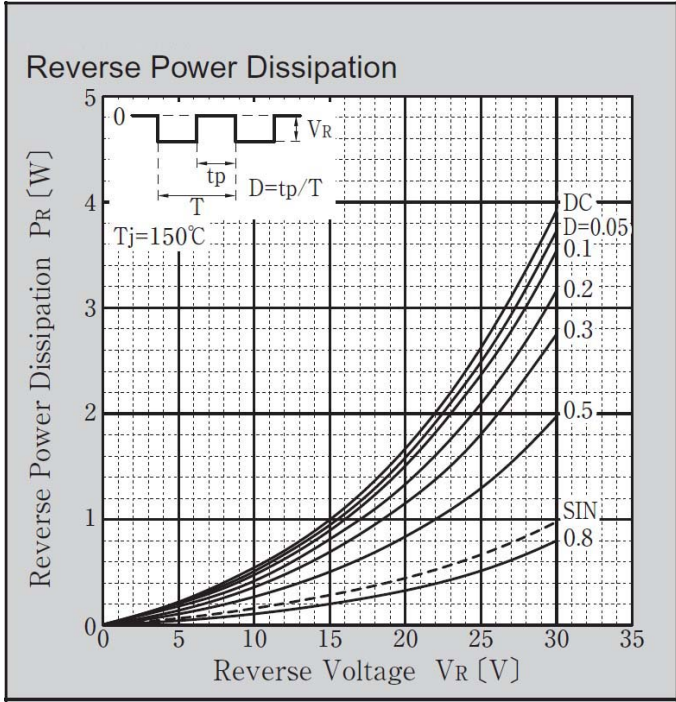


Peak Surge Forward Current Capability

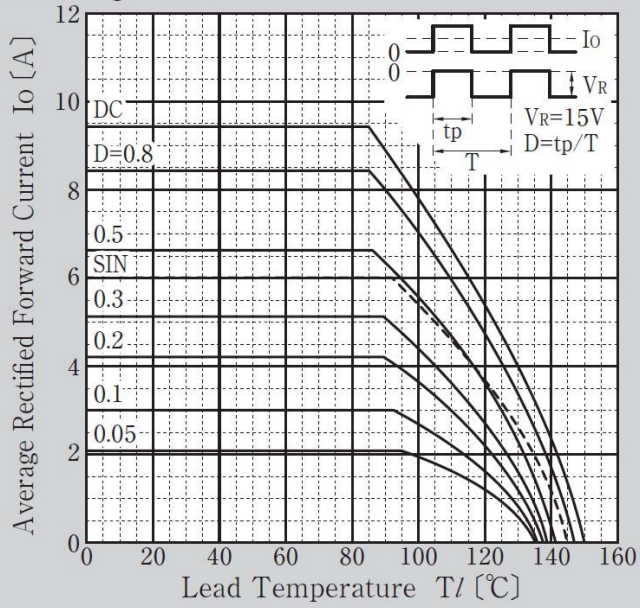


Reverse Current

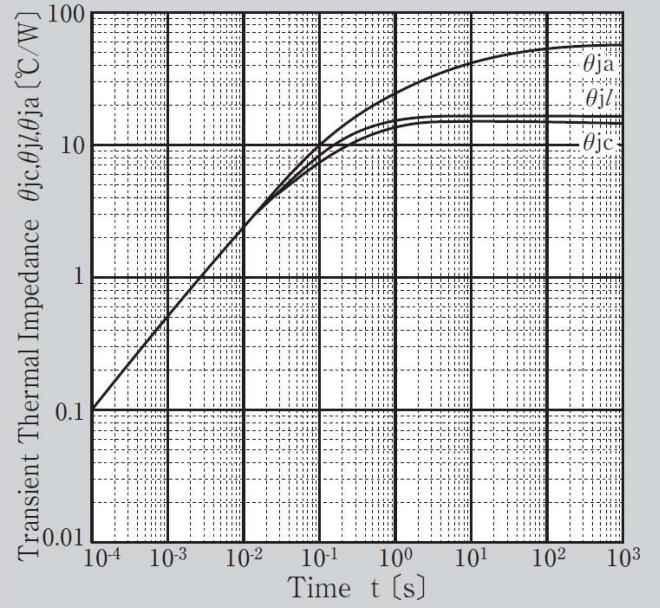




Derating Curve

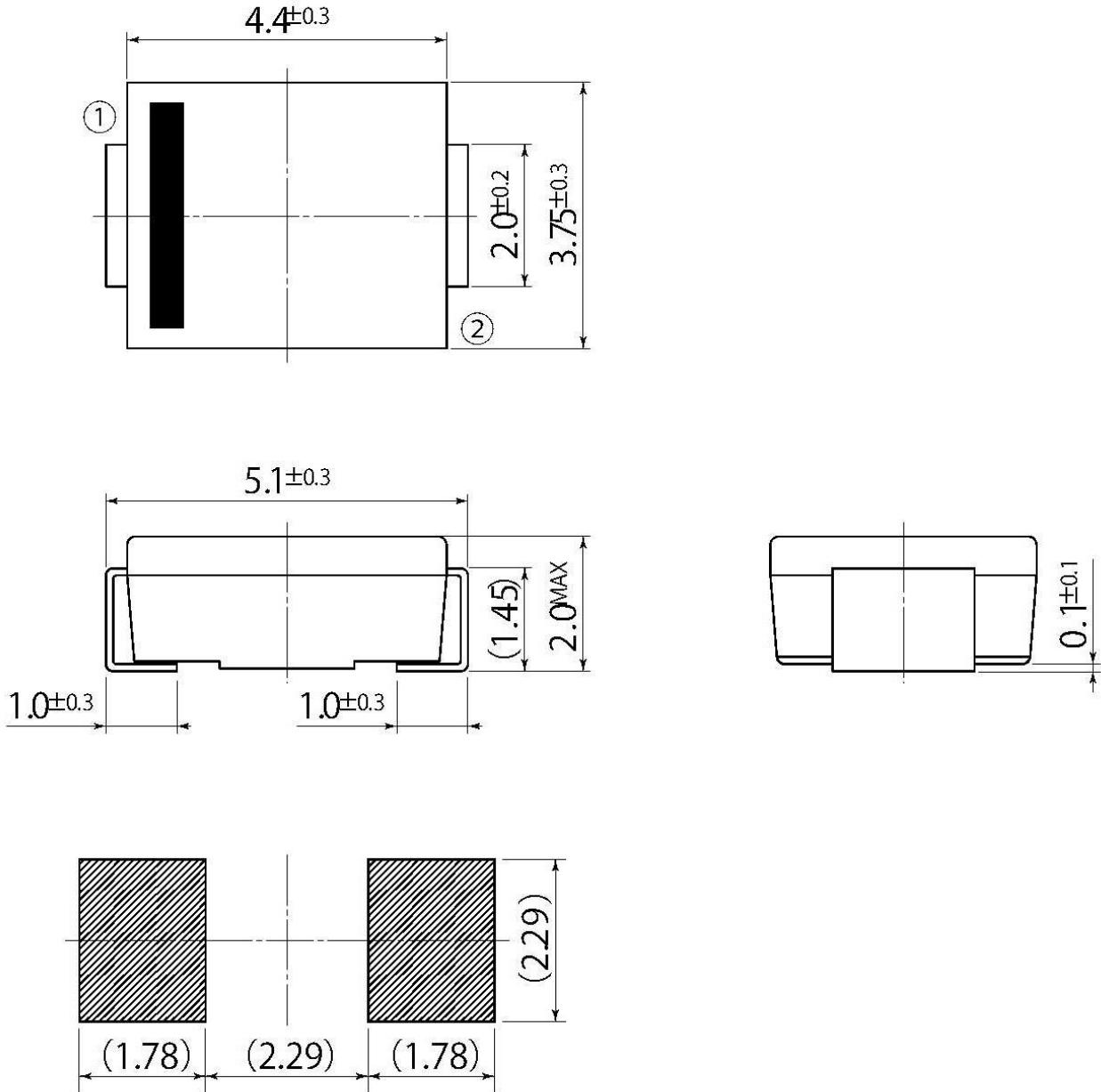


Transient Thermal Impedance



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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