ShinDengen

M2FM3

Schottky Barrier Diodes

30V, 6A

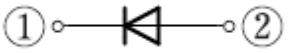
Feature

- 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

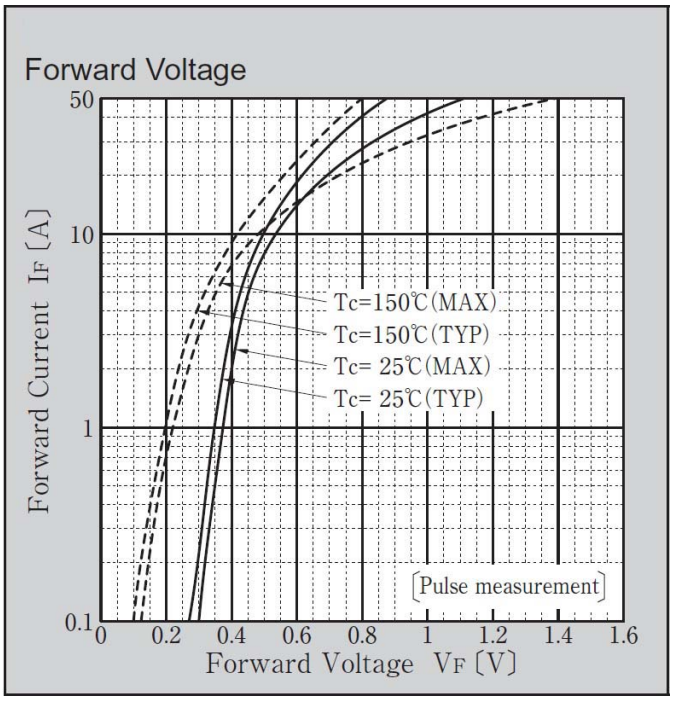
※ ：See the original Specifications

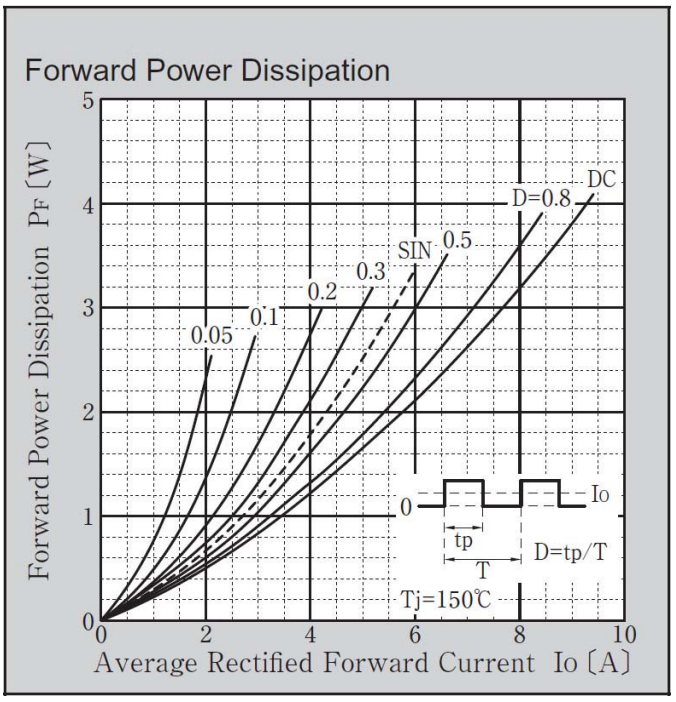
Electrical Characteristics (unless otherwise specified : Tc=25°C)

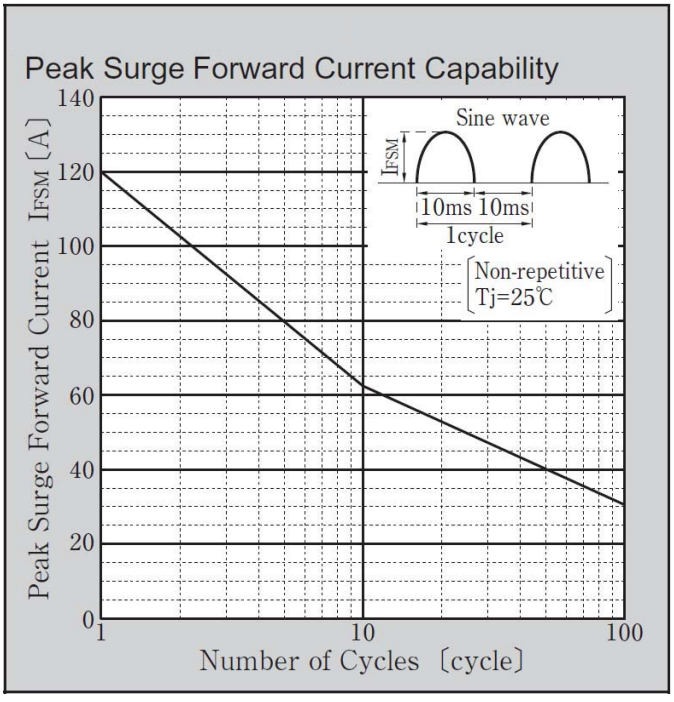
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=6A, Pulse measurement			0.46	V
Forward voltage	V_F	IF=2A, Pulse measurement			0.4	V
Reverse current	I_R	VR=30V, Pulse measurement			0.2	mA
Total capacitance	Ct	f=1MHz, VR=10V		240		pF
Thermal resistance	Rth(j-c)	Junction to 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

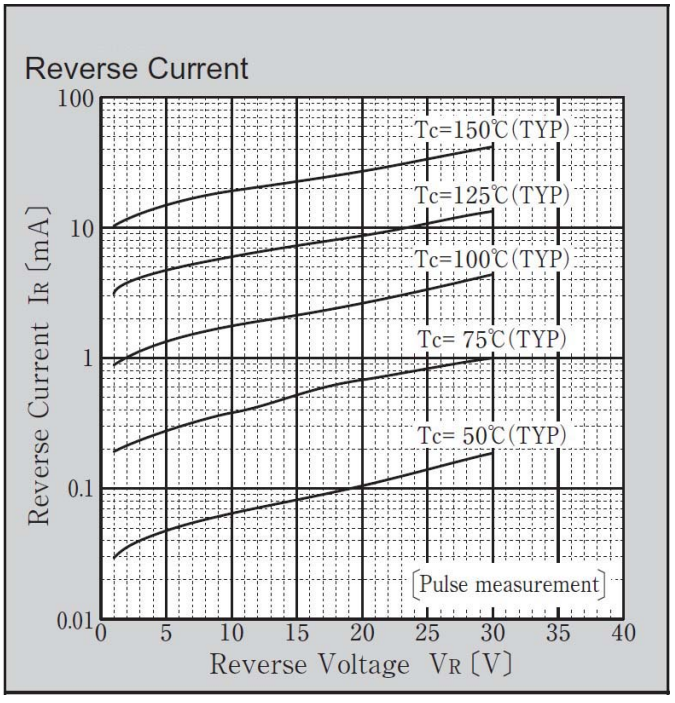
※ ：See the original Specifications

CHARACTERISTIC DIAGRAMS

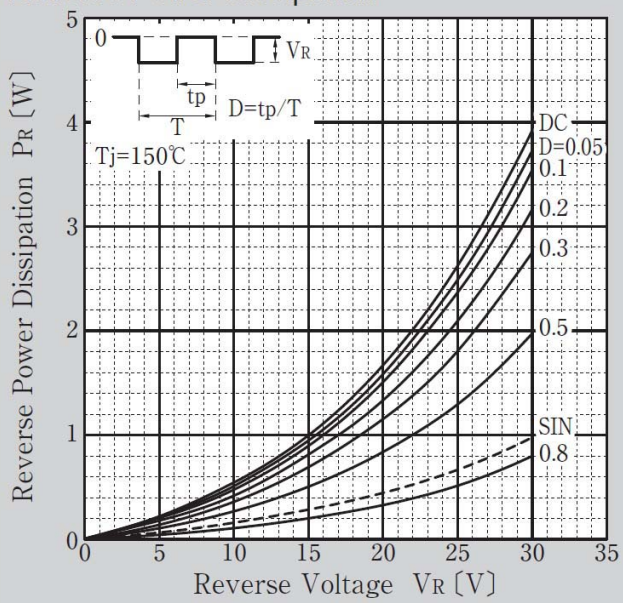




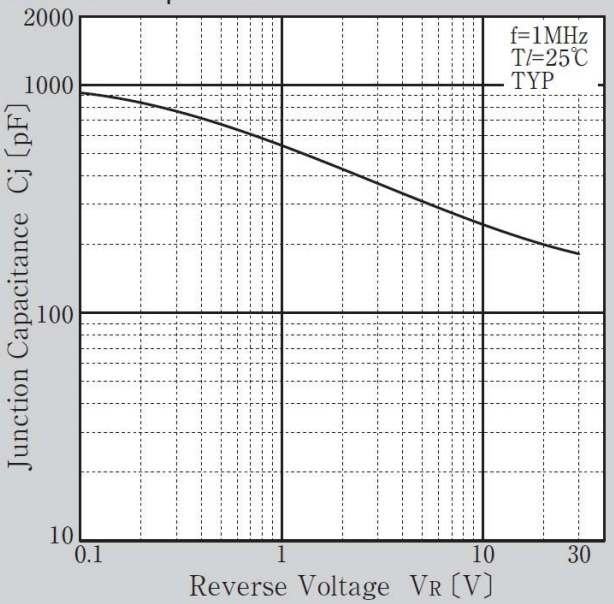




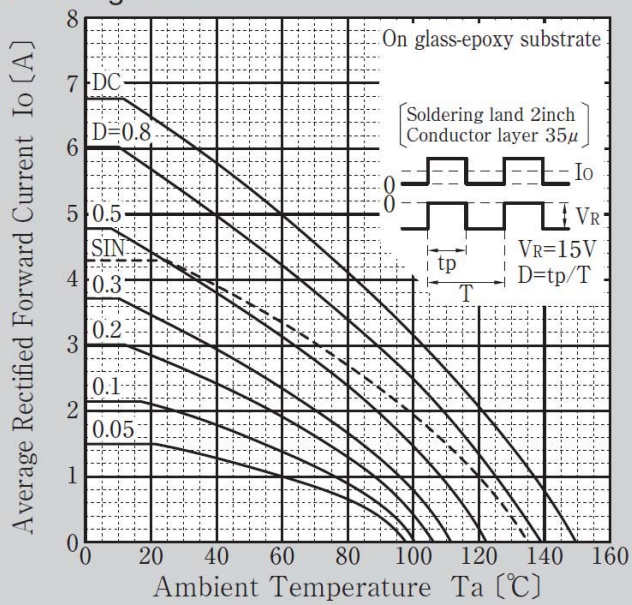
Reverse Power Dissipation



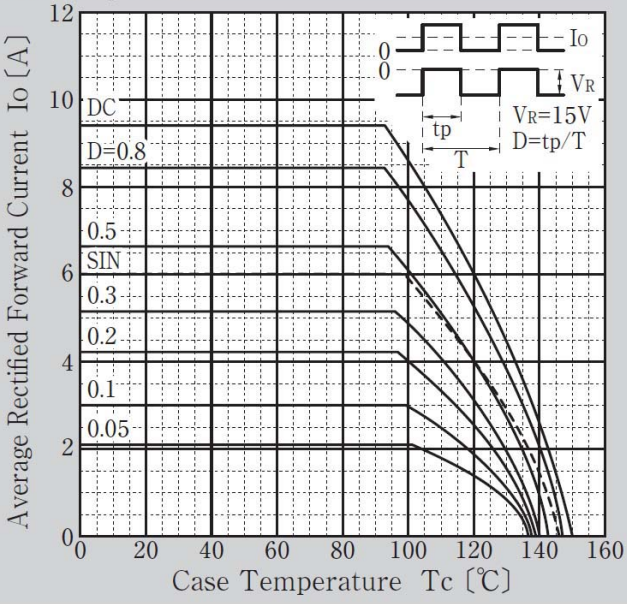
Junction Capacitance



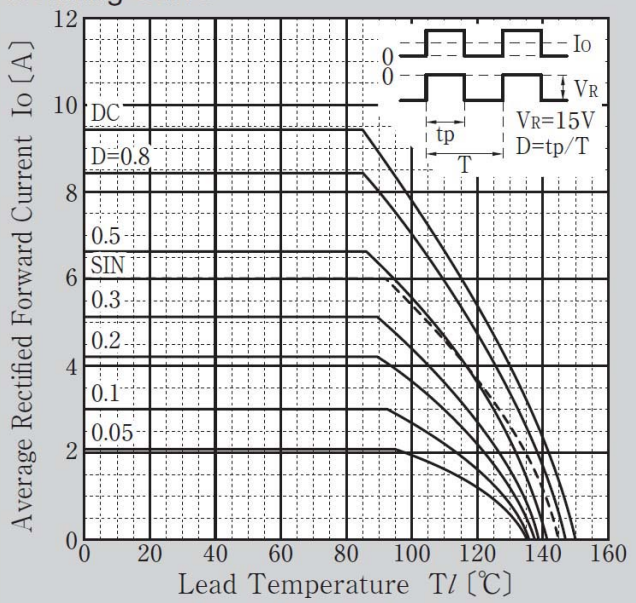
Derating Curve



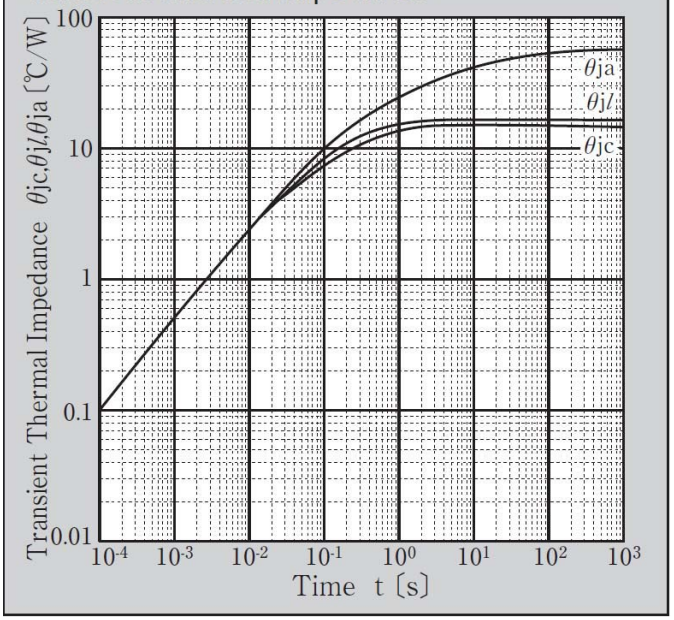
Derating Curve



Derating Curve



Transient Thermal Impedance



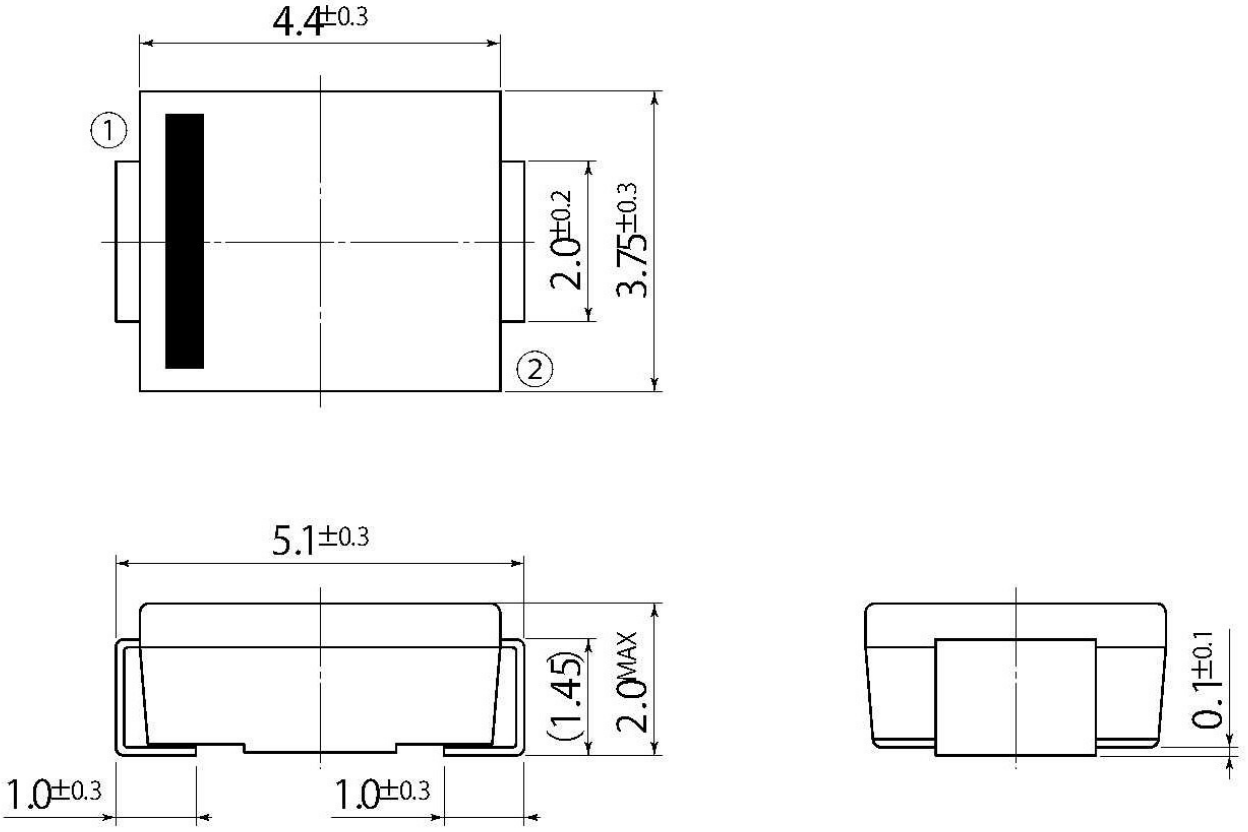
Outline Dimensions

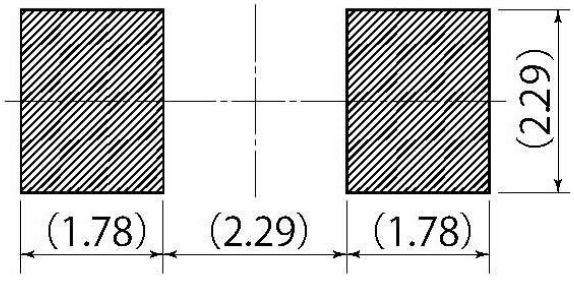
unit:mm

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 condi tion.

Notes

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