

M3FL20U

Fast Recovery Diodes

200V, 3A

Feature

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

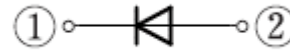
OUTLINE

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}		200	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Tl=75°C ※	3	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=28°C ※	1.4	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, T _j =25°C	75	A

※ :See the original Specifications

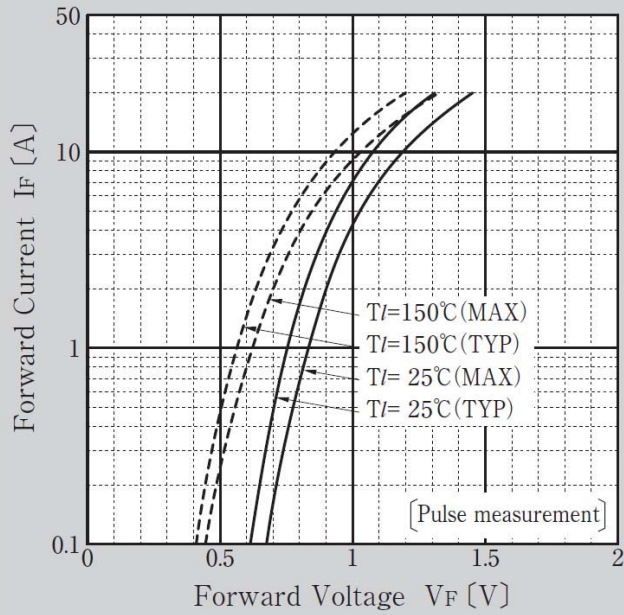
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=3A, Pulse measurement			0.95	V
Reverse current	I_R	VR=200V, Pulse measurement			10	μ A
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.1IR			35	ns
Total capacitance	Ct	f=1MHz, VR=10V		58		pF
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate *			25	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate *			110	°C/W

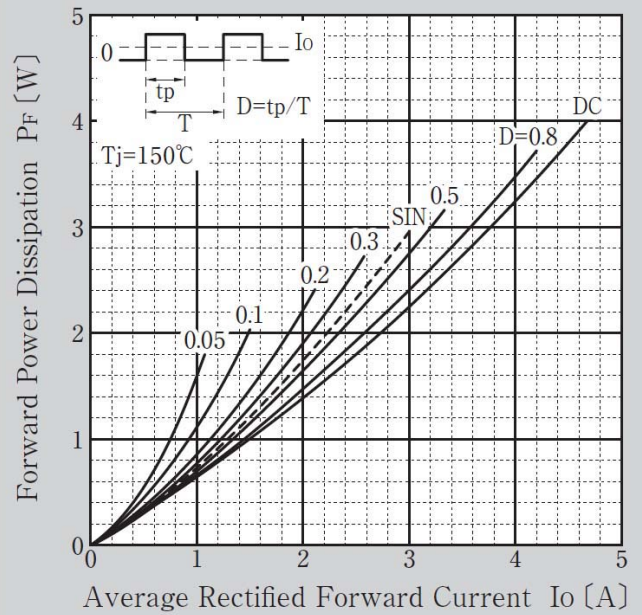
* :See the original Specifications

CHARACTERISTIC DIAGRAMS

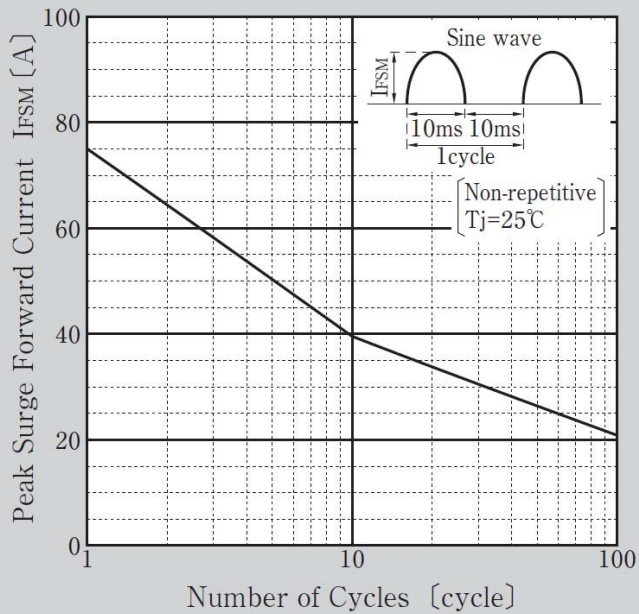
Forward Voltage



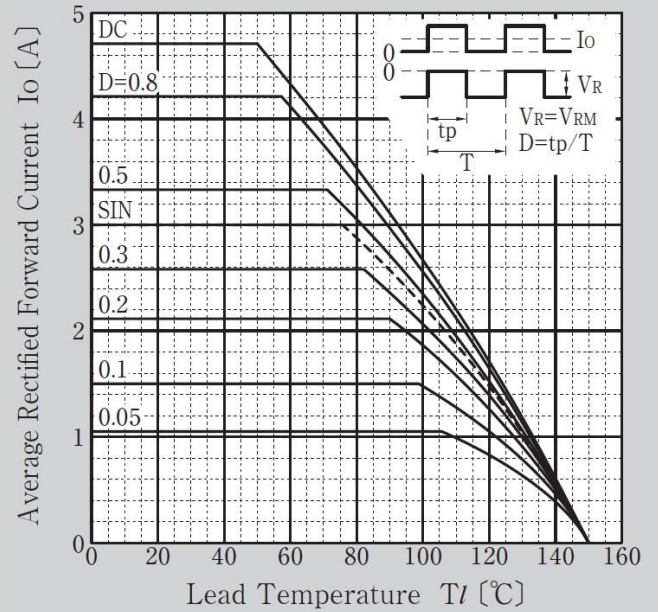
Forward Power Dissipation



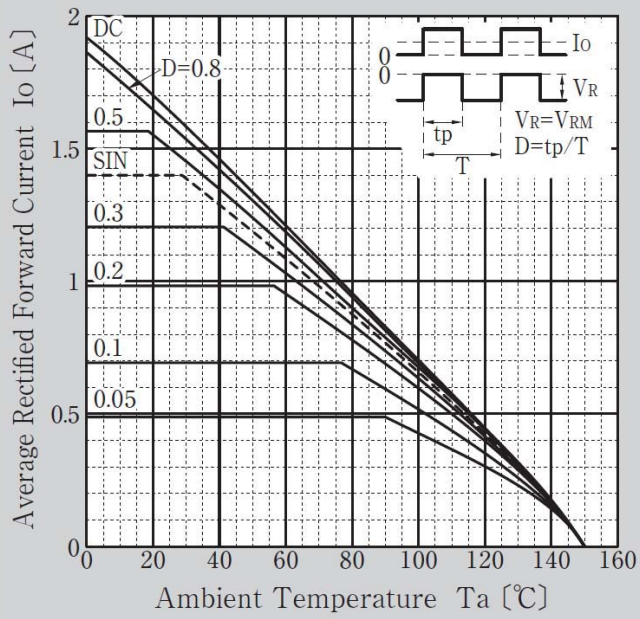
Peak Surge Forward Current Capability



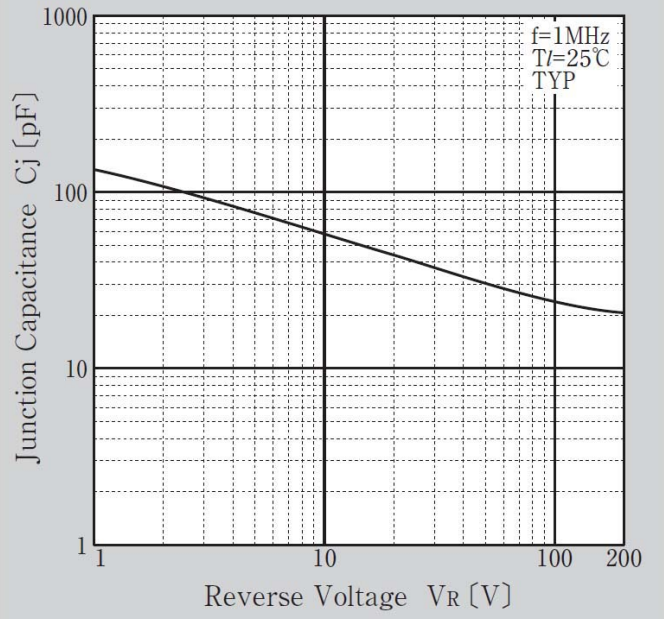
Derating Curve



Derating Curve

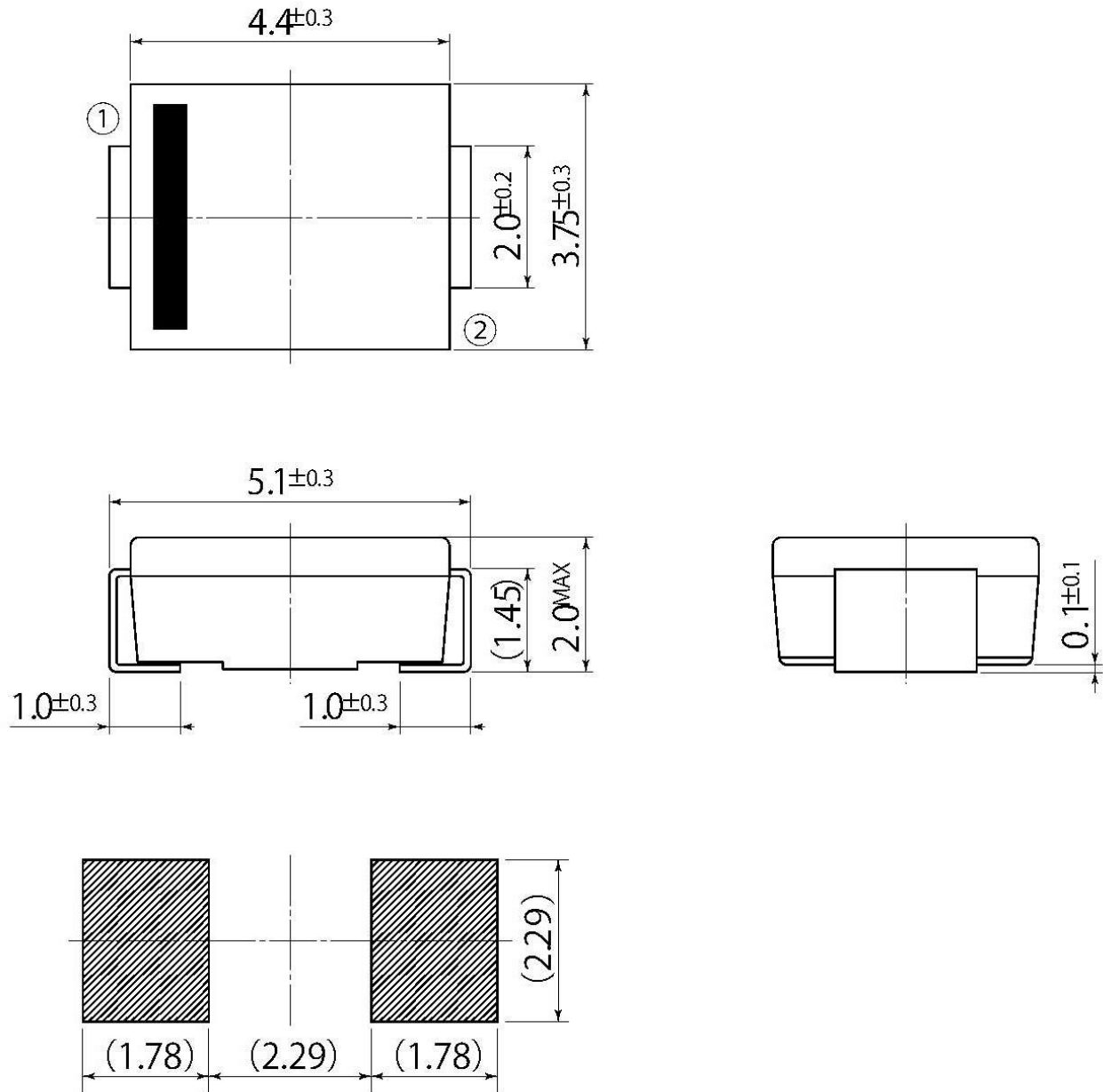


Junction Capacitance



B6

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



Referential Soldering Pad

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