

M3FE60

General Rectifying Diodes
600V, 3.0A

Feature

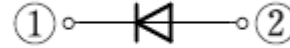
- Small SMD
- High ESD Capability
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

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 temperature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	V _{RRM}		600	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, Tl=76°C	3	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, Tl=90°C	2.5	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	1.3	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	90	A
Surge forward current	I _{FSM1}	tp=1ms, sine wave, Non-repetitive, peak value, Tj=25°C	230	A

※ : See the original Specifications

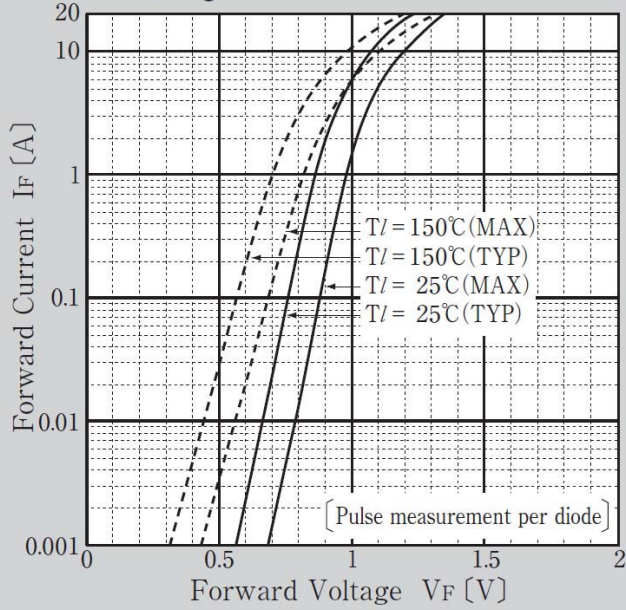
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=3A$, Pulse measurement			1.05	V
Reverse current	I_R	$V_R=600V$, Pulse measurement			10	μA
Electro static discharge Capability	V_{ESD}	$C=330pF$, $R=330\Omega$, Polarity \pm , Aerial discharge		25		kV
Thermal resistance	$R_{th(j-l)}$	Junction to lead			25	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			110	$^{\circ}C/W$

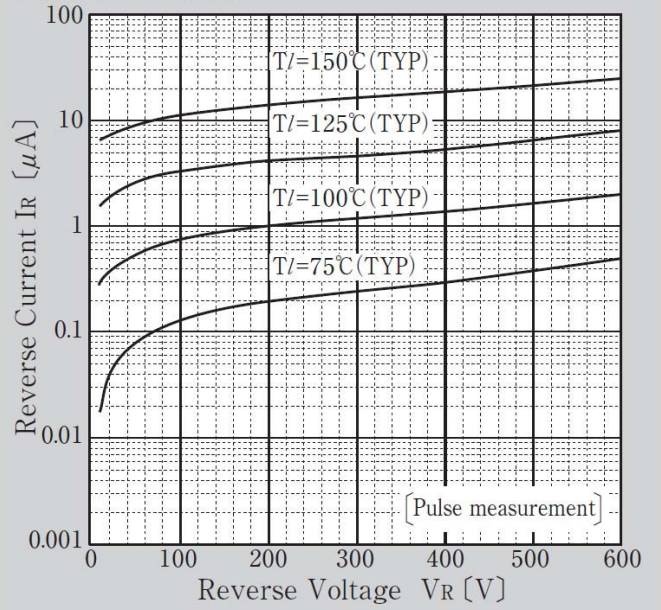
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

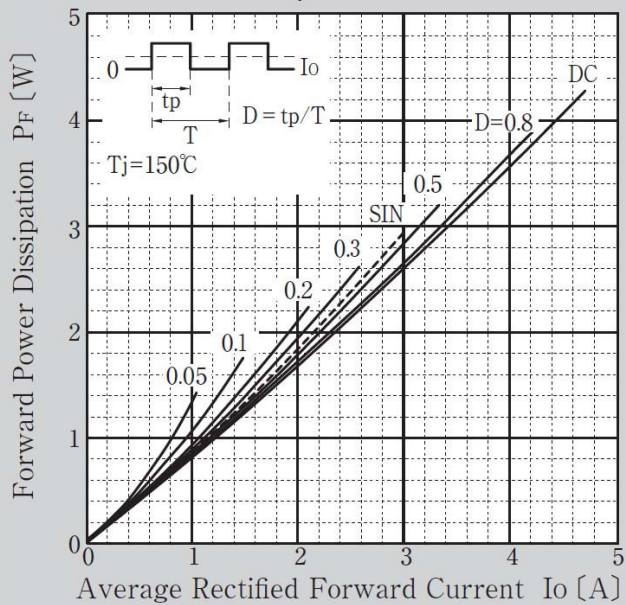
Forward Voltage



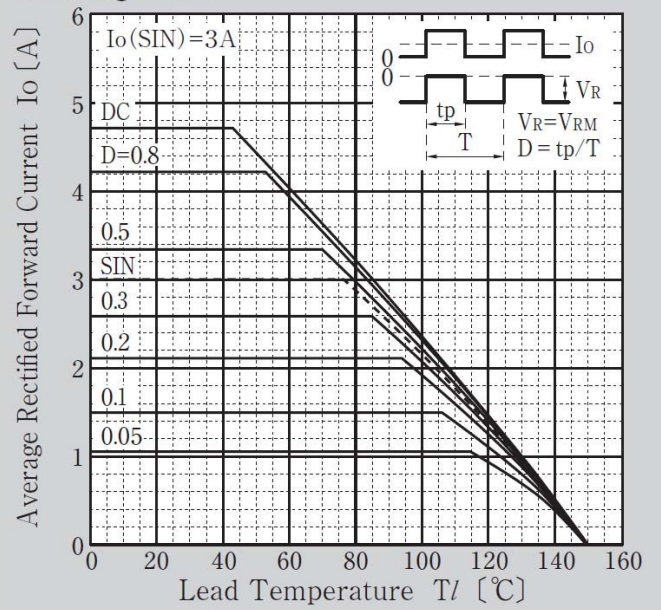
Reverse Current

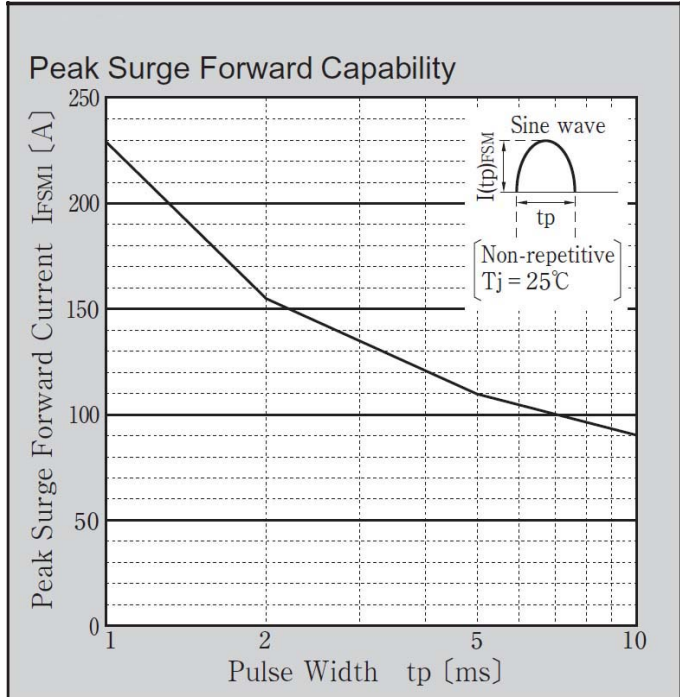
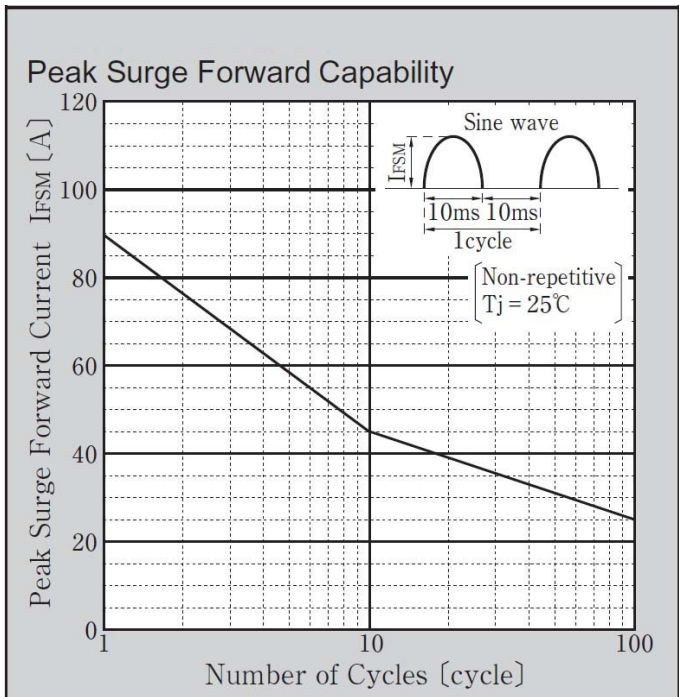
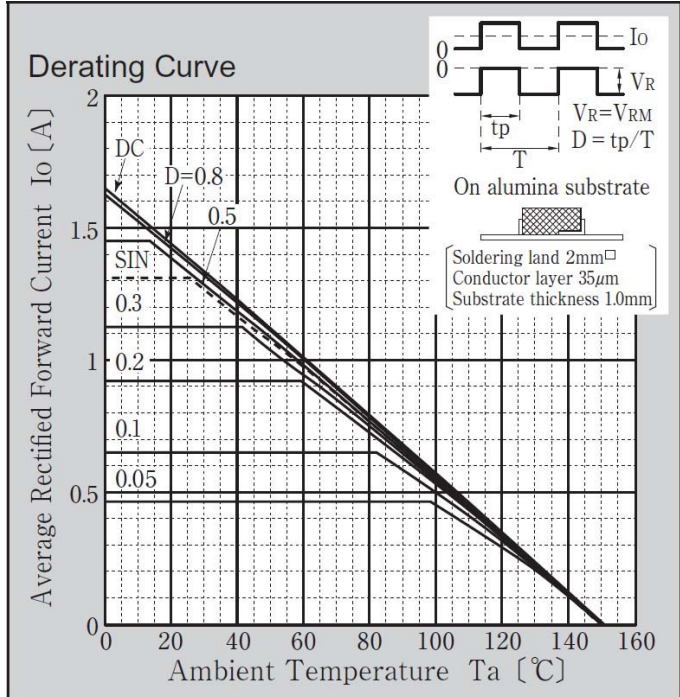
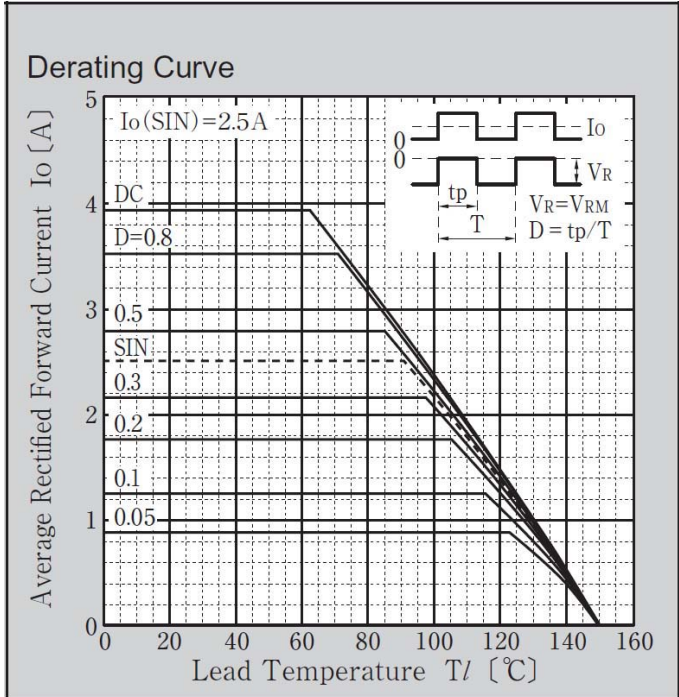


Forward Power Dissipation

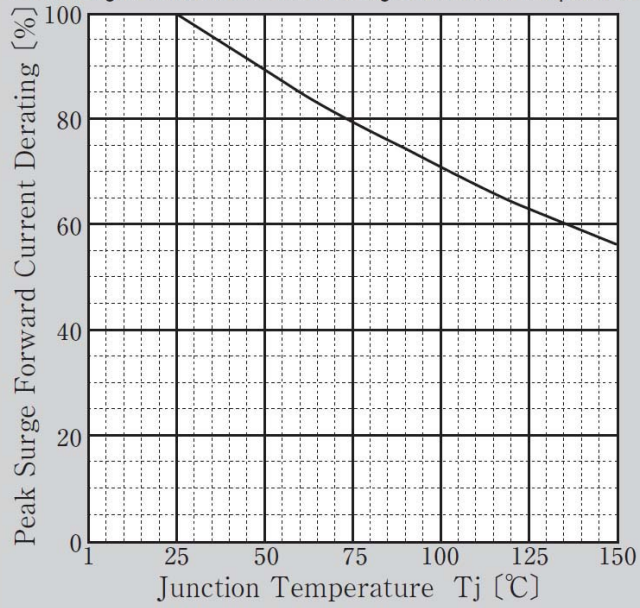


Derating Curve

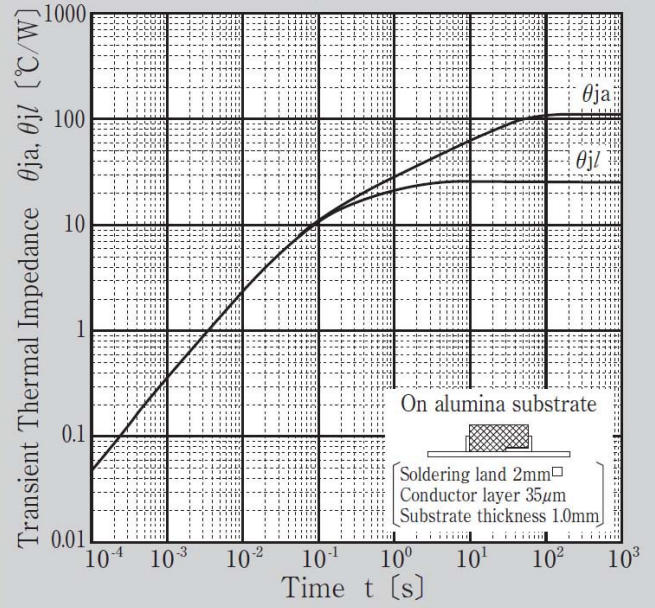




Peak Surge Forward Current Derating vs Junction Temperature

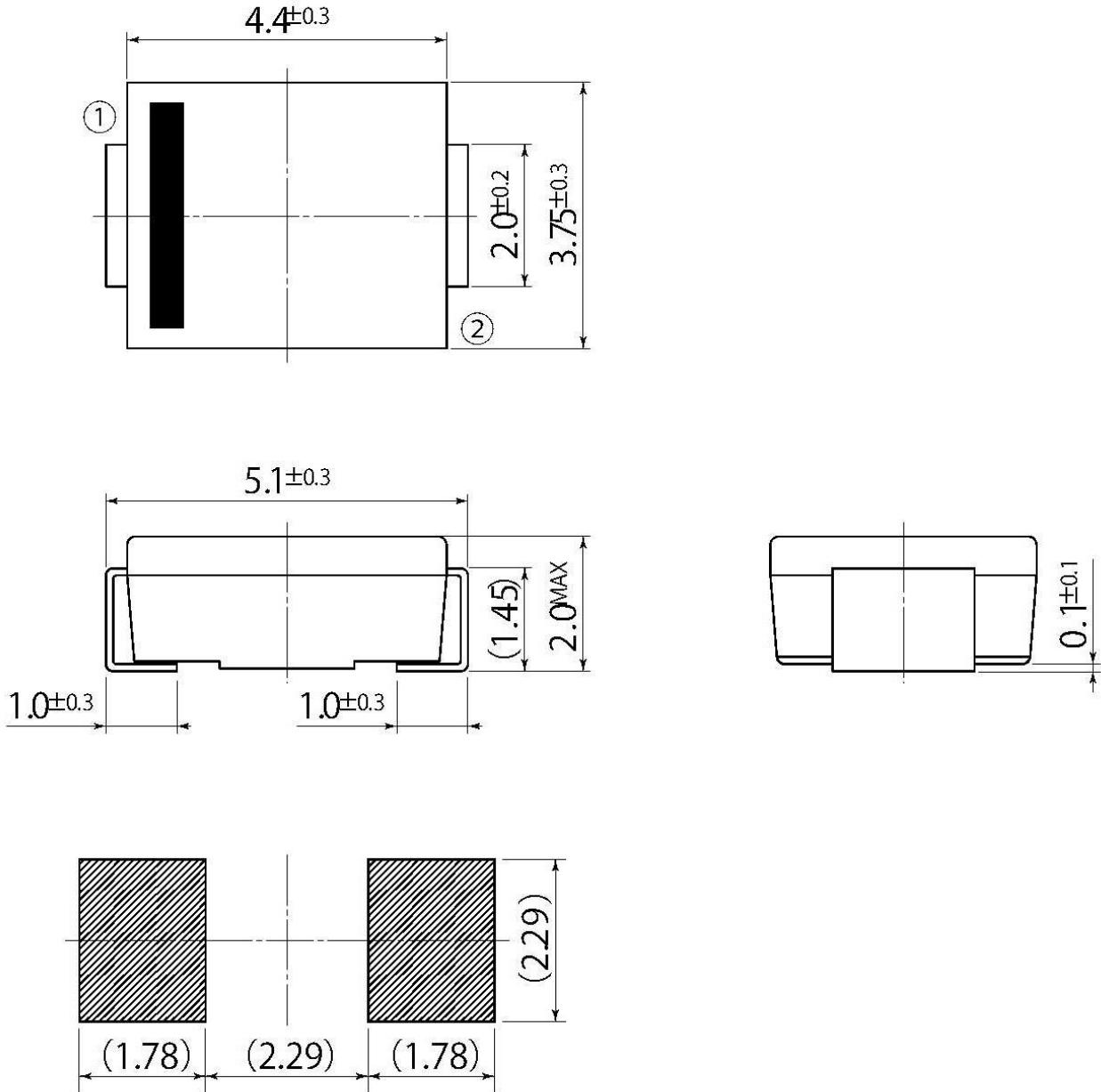


Transient Thermal Impedance



B6

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



Referential Soldering Pad

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