M1FH3

Schottky Barrier Diodes
30V, 1.7A

Feature

- Small SMD
- High Recovery Speed
- Low V_F
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): M1F
Package (JEDEC Code): DO-219AA similar

Equivalent circuit

Absolute Maximum Ratings (unless otherwise specified : Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 125	℃
Junction temperature	Tj		-55 to 125	℃
Repetitive peak reverse voltage	V_{RRM}		30	V
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25℃ ※	1.7	A
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, Tc=105℃	1.5	A
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, Tl=103℃	1.5	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25℃	30	A

※ :See the original Specifications

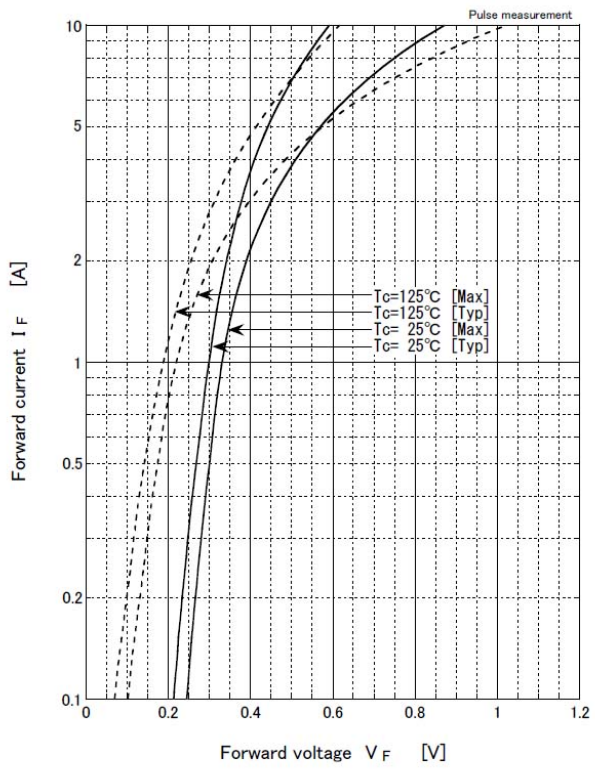
Electrical Characteristics (unless otherwise specified : Tc=25℃)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=1.5A, Pulse measurement			0.36	V
Forward voltage	V_F	IF=0.5A, Pulse measurement			0.3	V
Reverse current	I_R	VR=30V, Pulse measurement			1	mA
Total capacitance	Ct	f=1MHz, VR=10V		80		pF
Thermal resistance	Rth(j-c)	Junction to case			18	℃/W
Thermal resistance	Rth(j-l)	Junction to lead			20	℃/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			80	℃/W

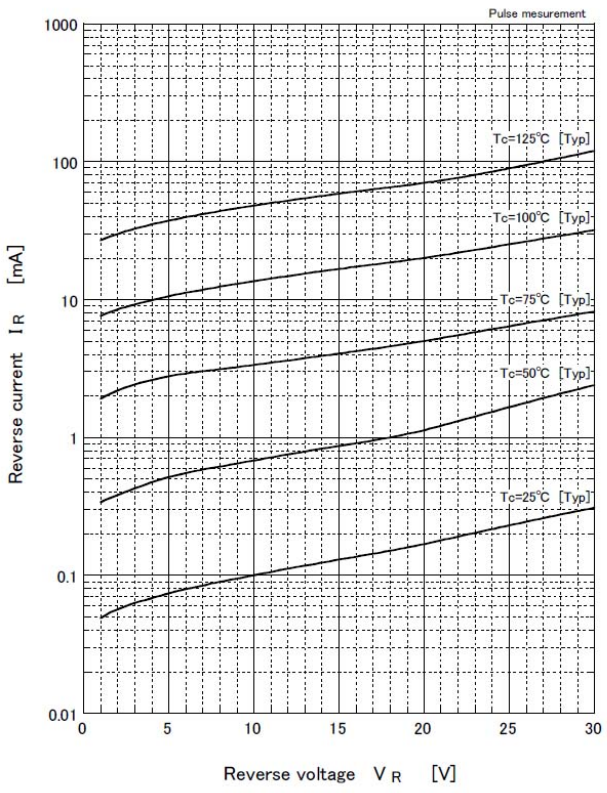
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

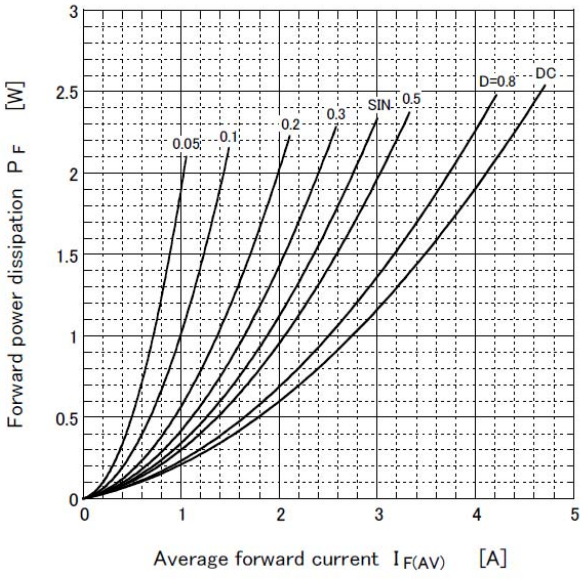
Forward voltage

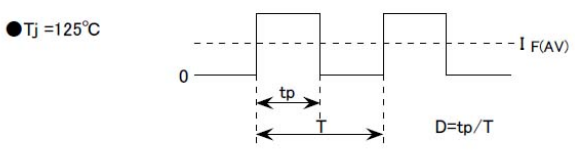


Reverse current

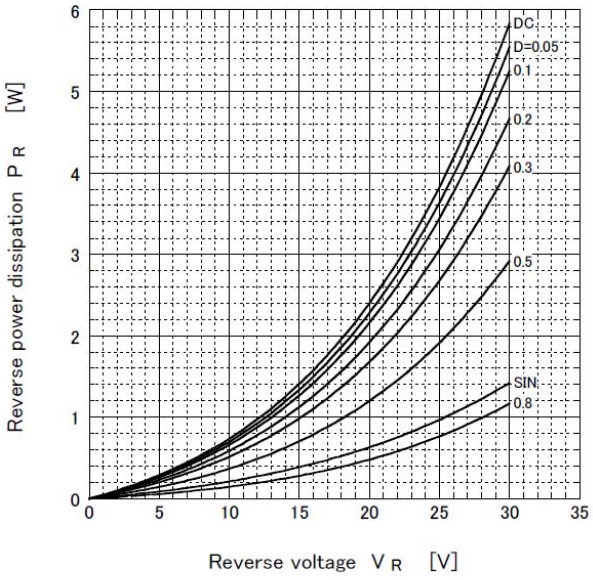


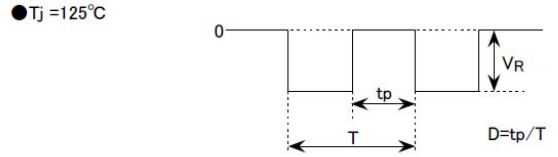
Forward power dissipation



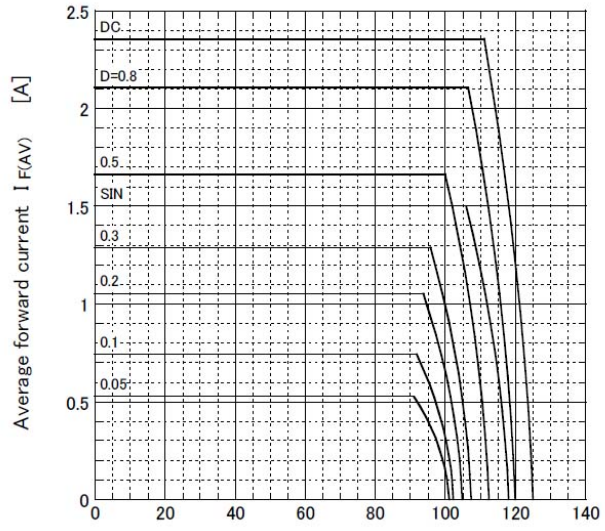


Reverse power dissipation

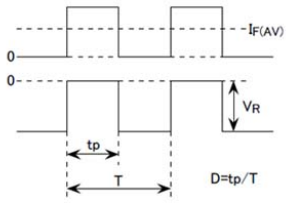




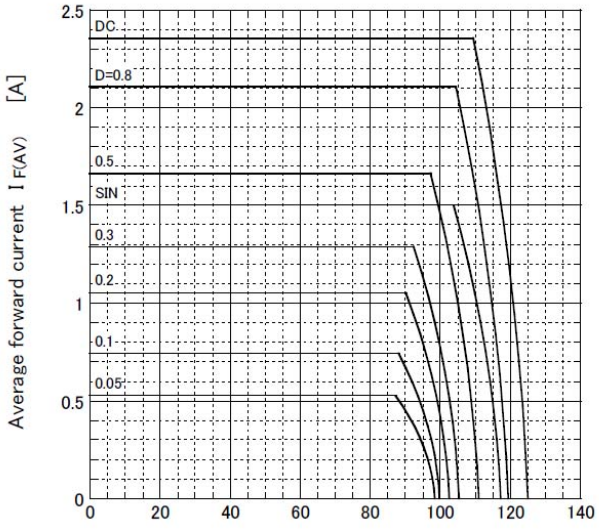
Derating curve



●VR = 15V
R-load
Free in air



Derating curve



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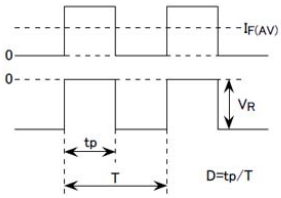
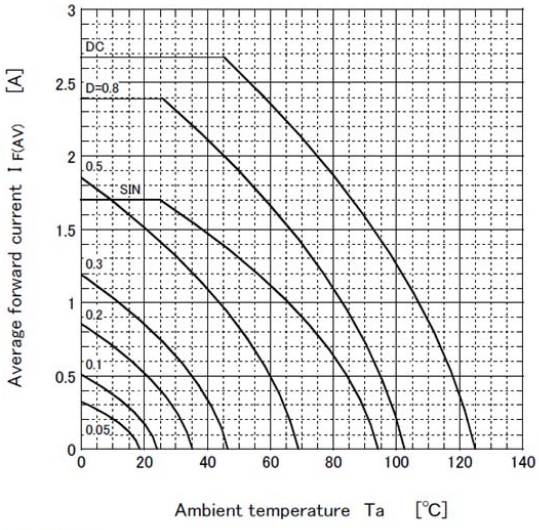
R-load
Free in air



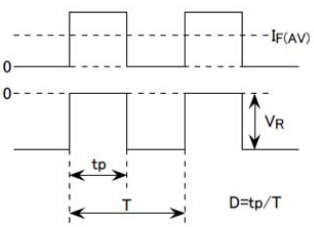
Derating curve



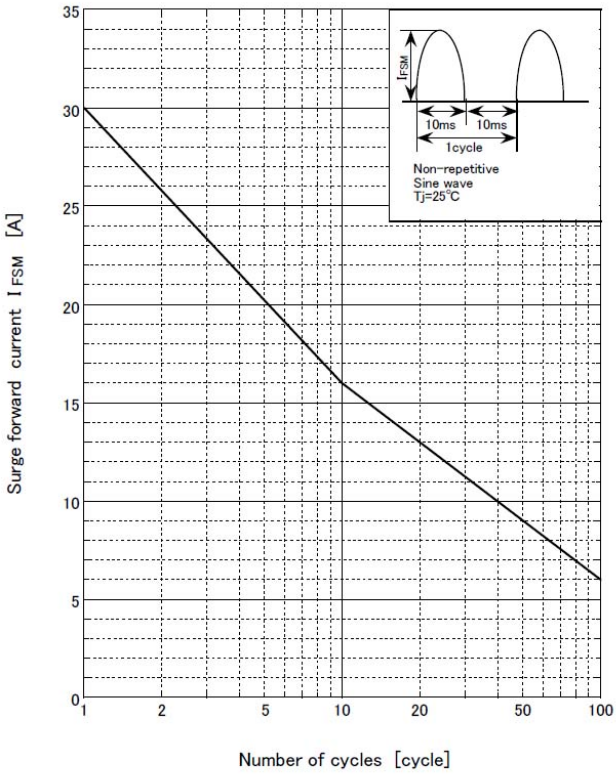
●VR = 15V
R-load
Free in air

●Substrate detail

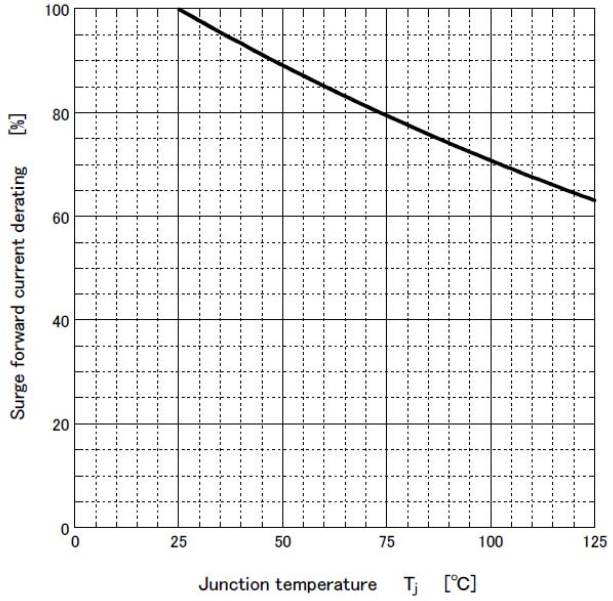
Type	Glass-epoxy
Size	1×1inch
Thickness	1.6mm
Conductor thickness	35μm
Pattern area	43.4mm²



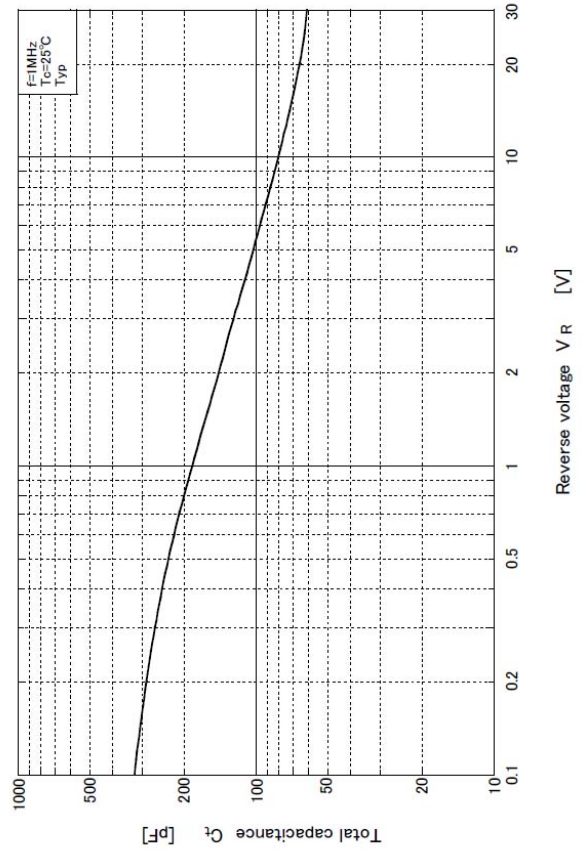
Surge forward current capability



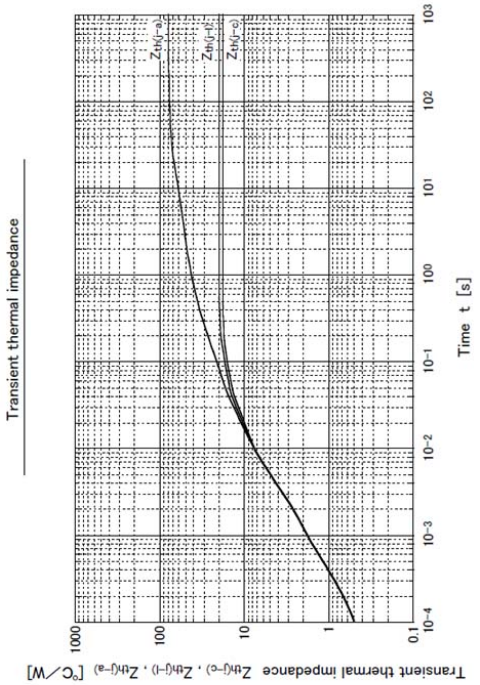
Surge forward current derating
vs Junction temperature



Total capacitance



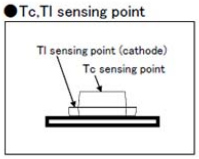
Transient thermal impedance



●Substrate detail

Type	Glass-epoxy
Size	1×1inch
Thickness	1.6mm
Conductor thickness	35μm
Pattern area	43.4mm²

●Tc,Tl sensing point



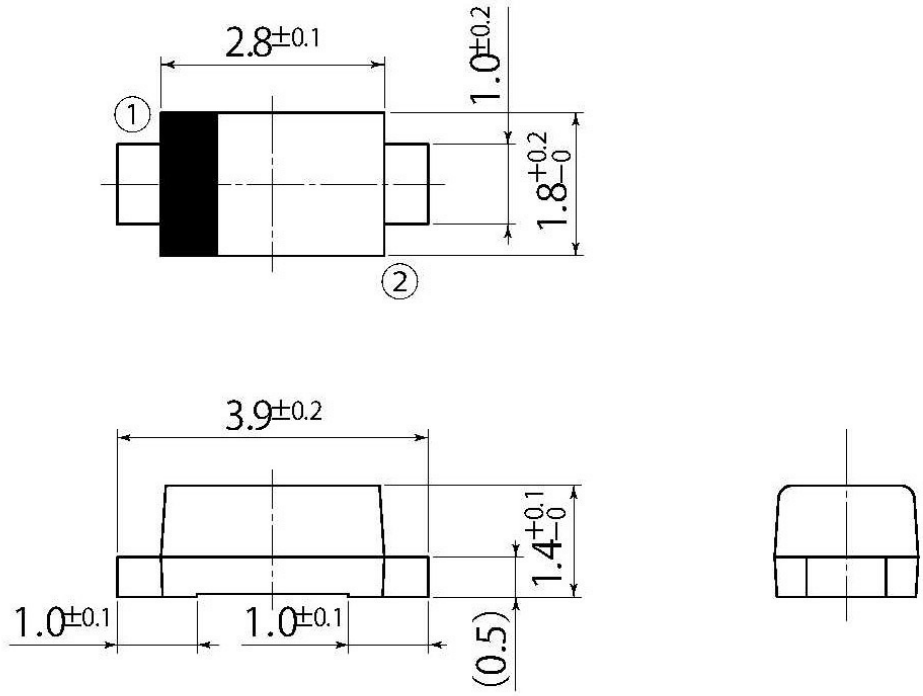
Outline Dimensions

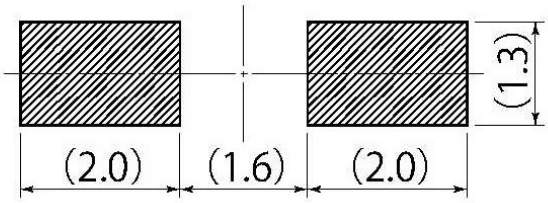
unit:mm

scale: 10/1

B2

JEDEC Code	DO-219AA similar
JEITA Code	–
House Name	M1F





Referential Soldering Pad

・Optimize soldering pad to the board design and soldering condi tion.

Notes

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