

M1FS6

Schottky Barrier Diodes

60V, 1.2A

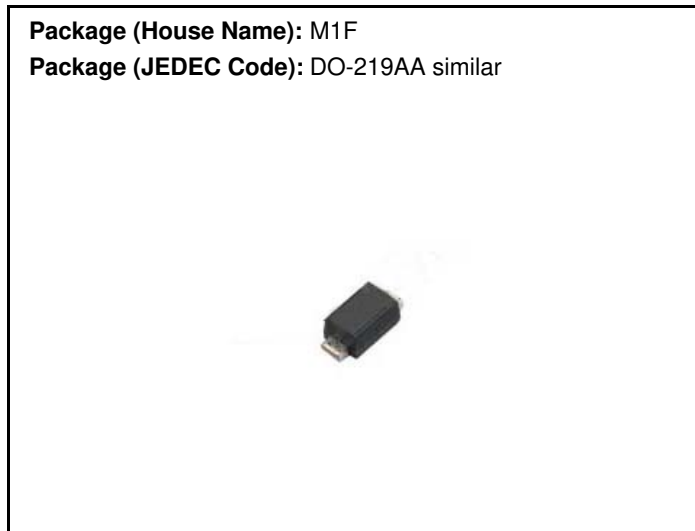
Feature

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

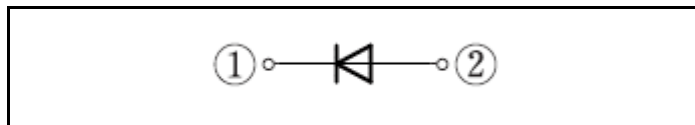
OUTLINE

Package (House Name): M1F

Package (JEDEC Code): DO-219AA 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}		60	V
Repetitive peak surge reverse voltage	V _{RRSM}	Pulse width 0.5ms, duty=1/40	65	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C ※	1.2	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	0.75	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, T _j =25°C	40	A
Repetitive peak surge reverse power	P _{RRSM}	Pulse width 10μs, T _j =25°C	60	W

※ :See the original Specifications

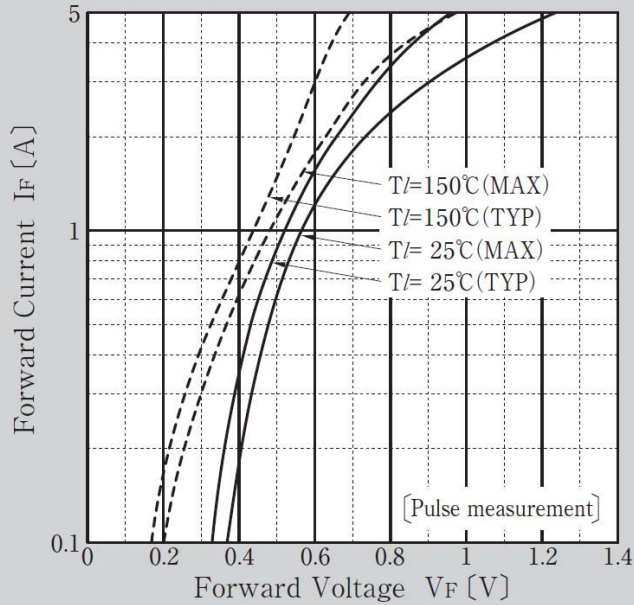
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$I_F=1.1A$, Pulse measurement			0.58	V
Reverse current	I_R	$V_R=60V$, Pulse measurement			1	mA
Total capacitance	C_t	$f=1MHz$, $V_R=10V$		53		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead			20	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On alumina substrate ※			108	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			186	°C/W

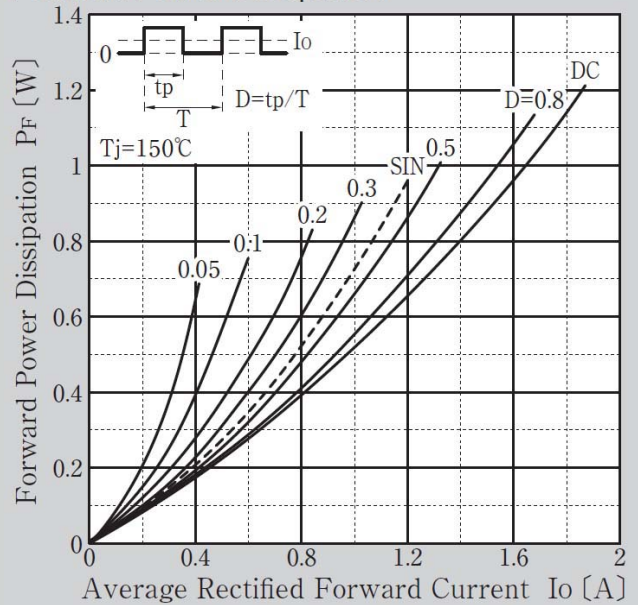
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

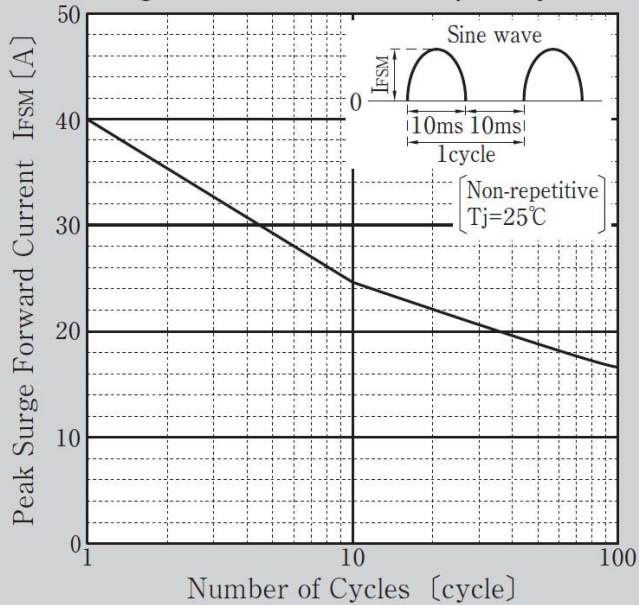
Forward Voltage



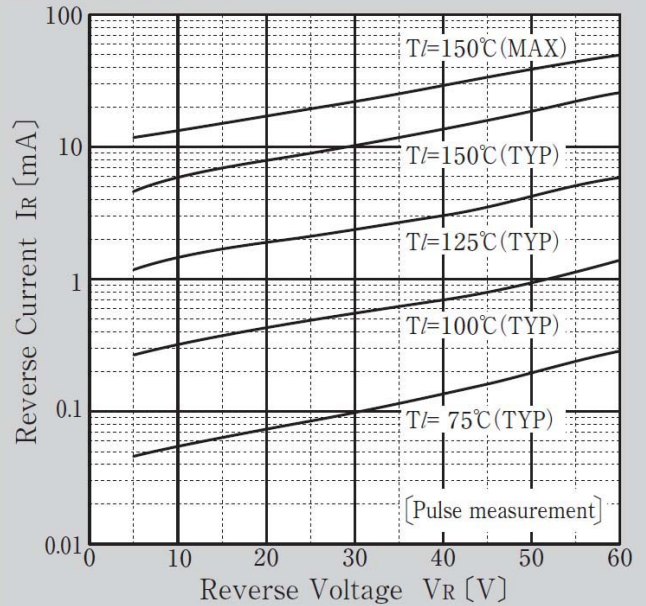
Forward Power Dissipation

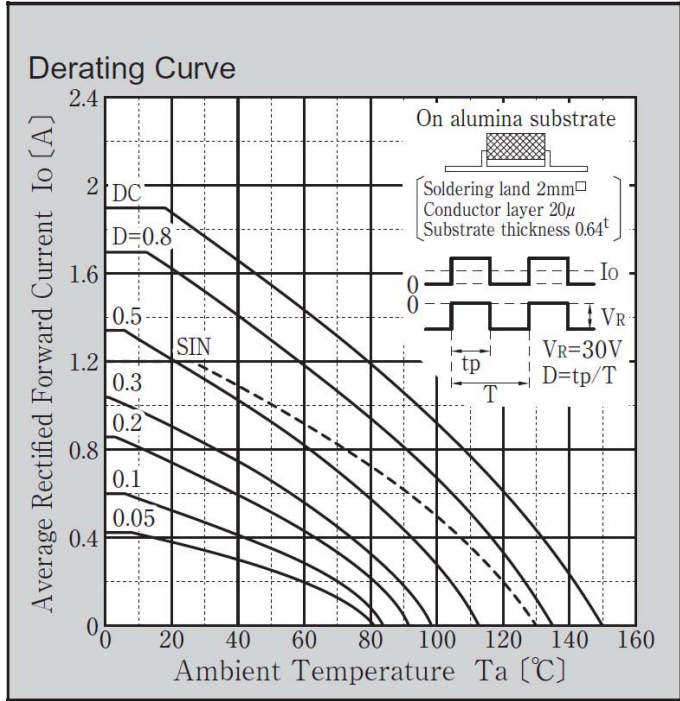
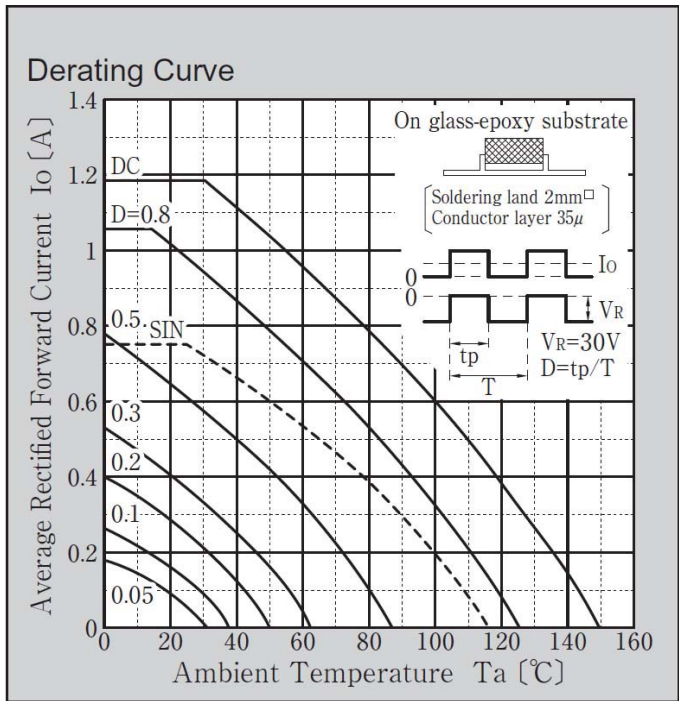
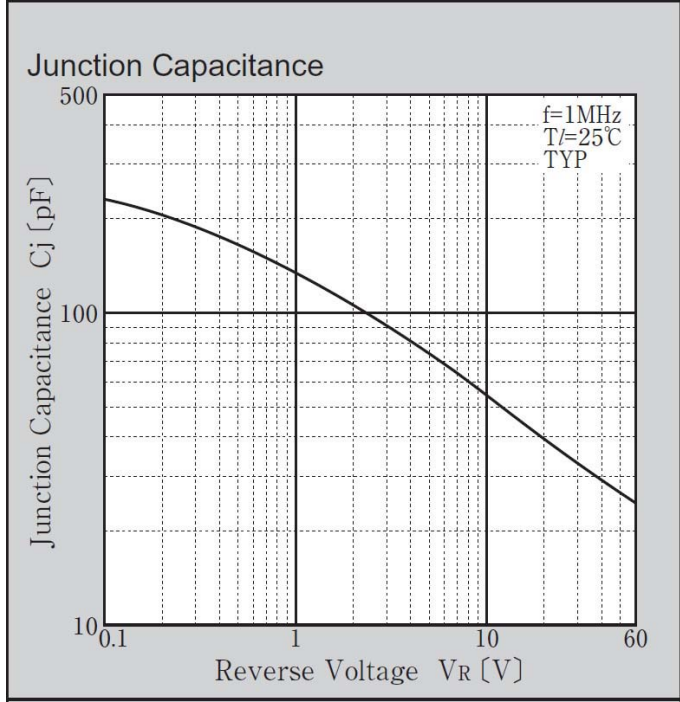
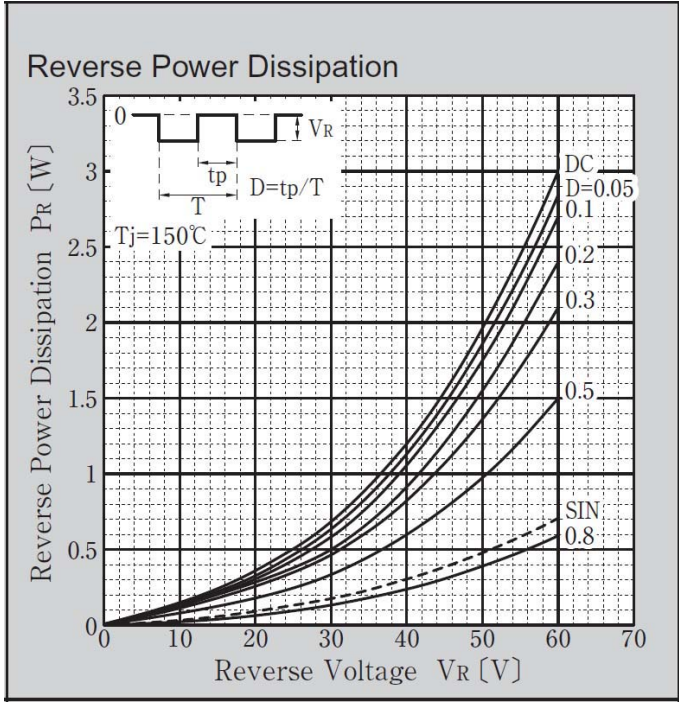


Peak Surge Forward Current Capability

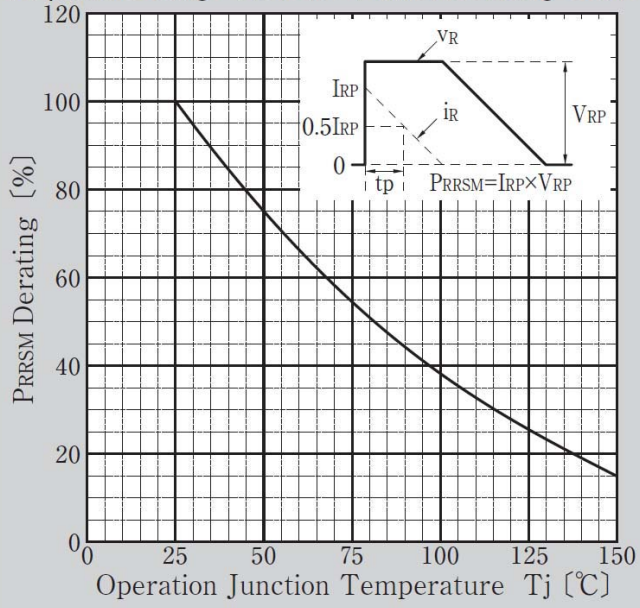


Reverse Current

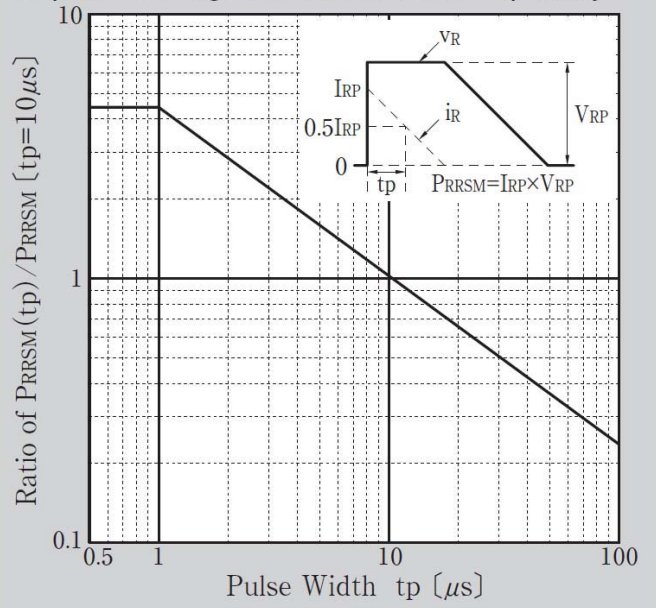




Repetitive Surge Reverse Power Derating Curve

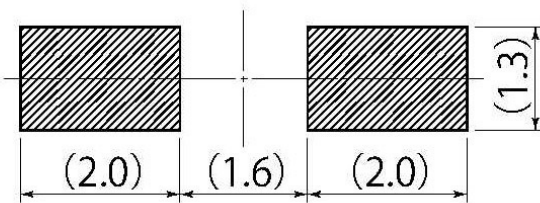
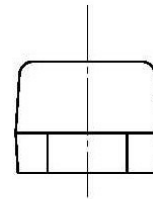
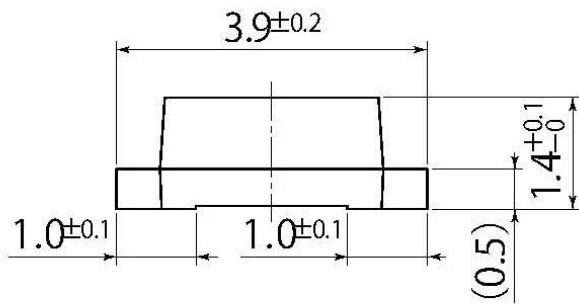
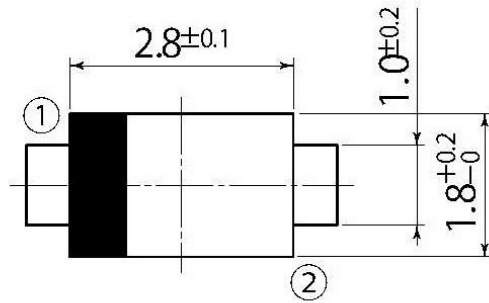


Repetitive Surge Reverse Power Capability



B2

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



Referential Soldering Pad

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

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