

D1FT10

Schottky Barrier Diodes 100V, 2A

Feature

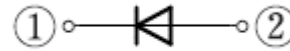
- Small SMD
- $T_j=175^{\circ}\text{C}$
- Ultra low I_R
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): 1F
Package (JEDEC Code): DO-214AC



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : $T_l=25^{\circ}\text{C}$)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T_{stg}		-55 to 175	$^{\circ}\text{C}$
Junction temperature	T_j		175	$^{\circ}\text{C}$
Repetitive peak reverse voltage	V_{RRM}		100	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, $T_l=136^{\circ}\text{C}$	2	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On alumina substrate, $T_a=25^{\circ}\text{C}$	1.74	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, $T_a=25^{\circ}\text{C}$	1.31	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, $T_j=25^{\circ}\text{C}$	50	A

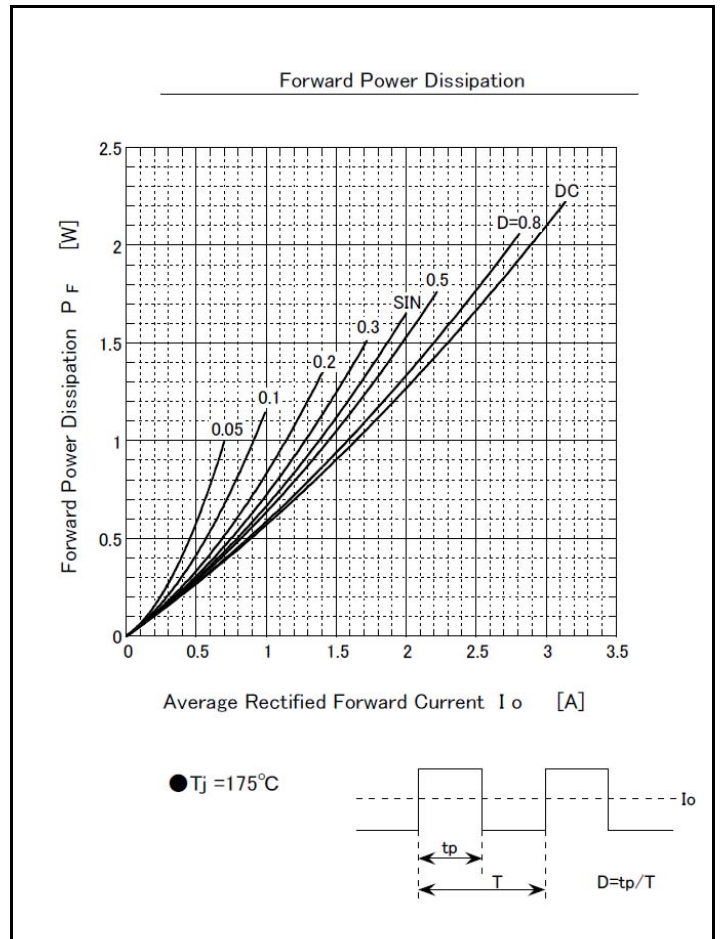
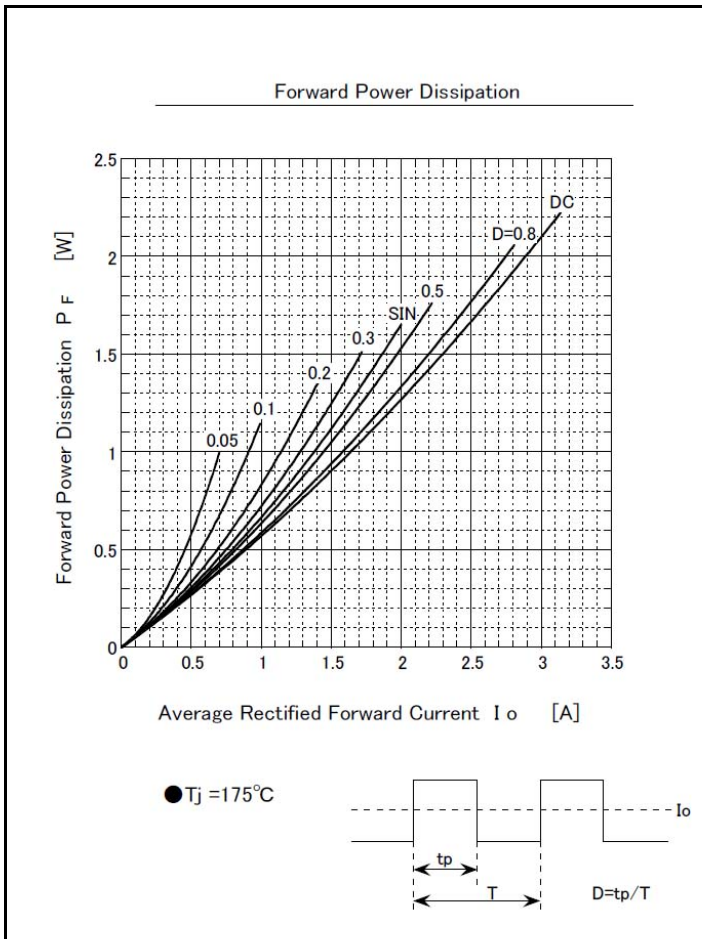
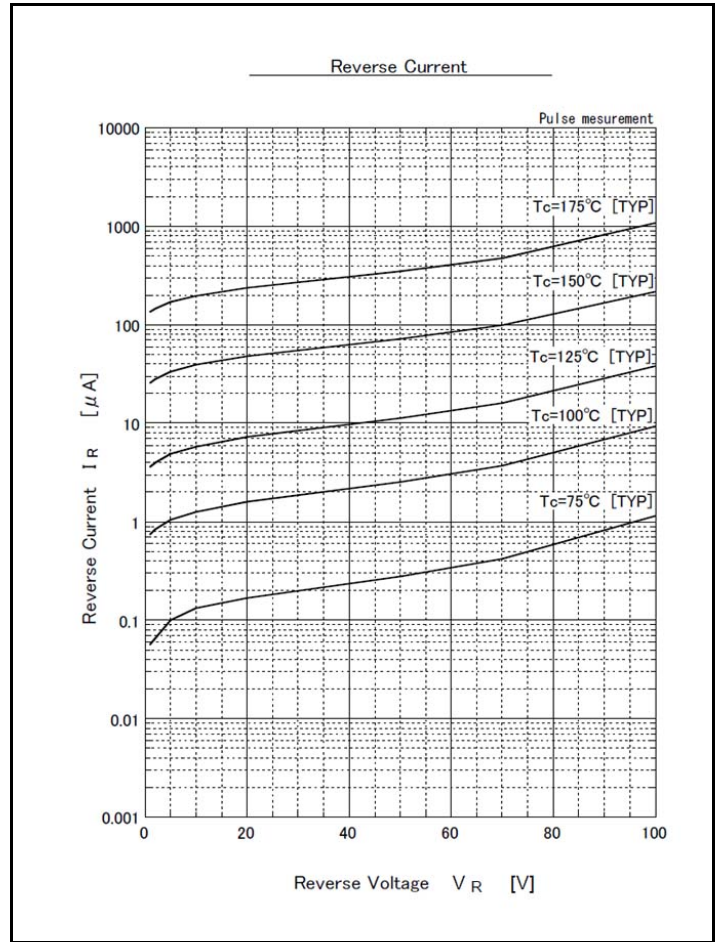
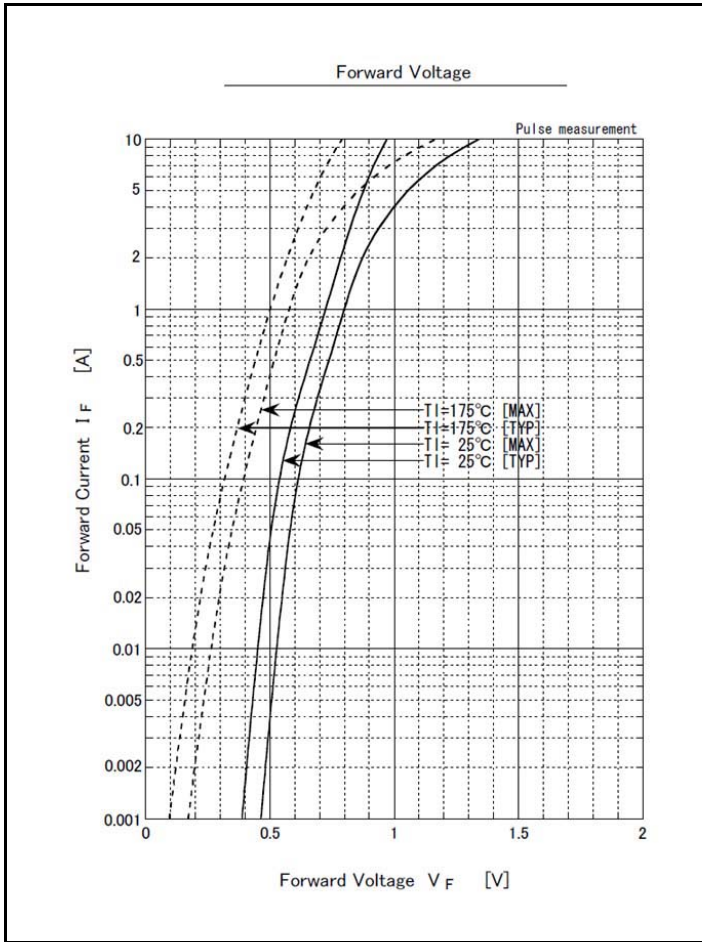
* : See the original Specifications

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

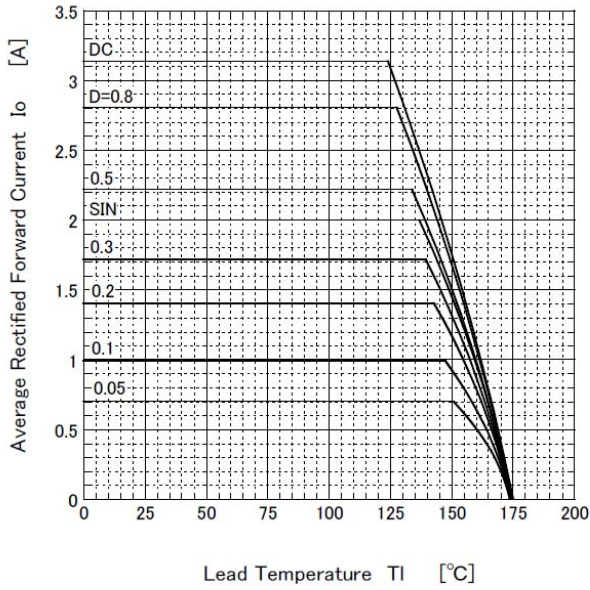
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=2A, Pulse measurement			0.86	V
Forward voltage	V_F	IF=1A, Pulse measurement			0.8	V
Reverse current	I_R	VR=100V, Pulse measurement			0.005	mA
Total capacitance	C_t	f=1MHz, VR=10V		40		pF
Thermal resistance	Rth(j-l)	Junction to lead			23	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On alumina substrate			108	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate			157	°C/W

* :See the original Specifications

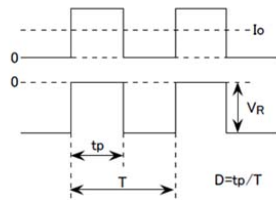
CHARACTERISTIC DIAGRAMS



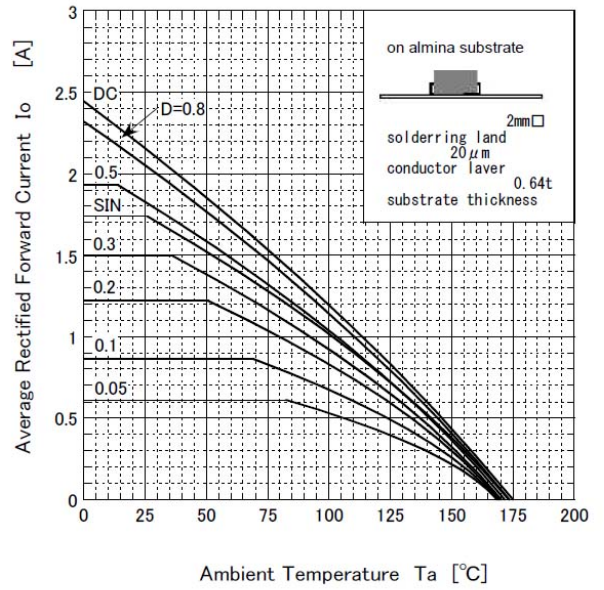
Derating Curve



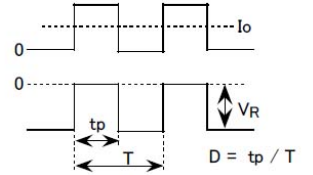
● $V_R = 50V$



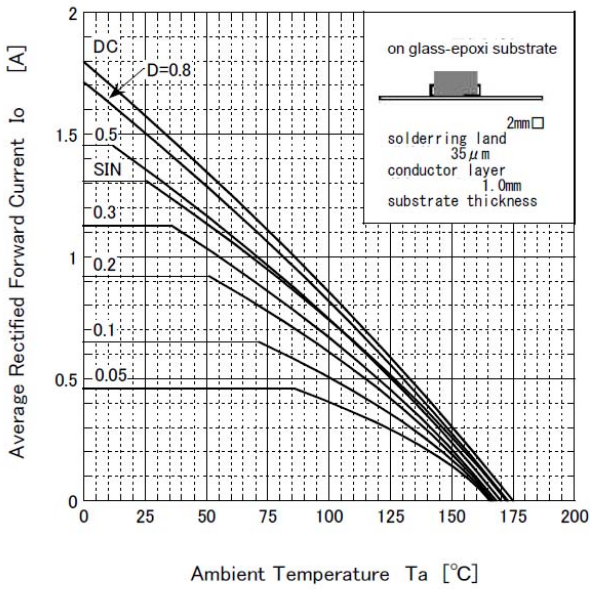
Derating Curve



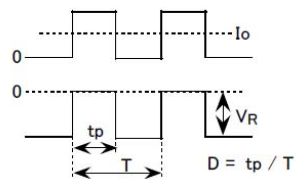
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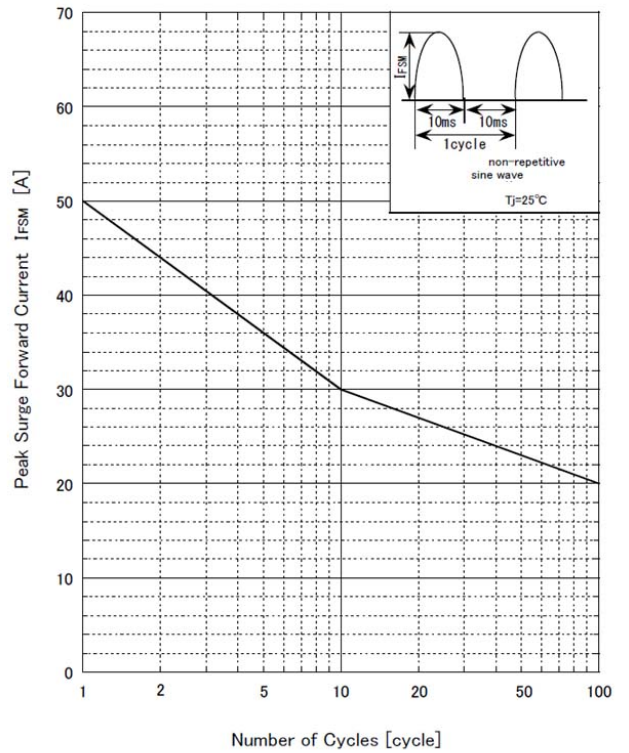
Derating Curve

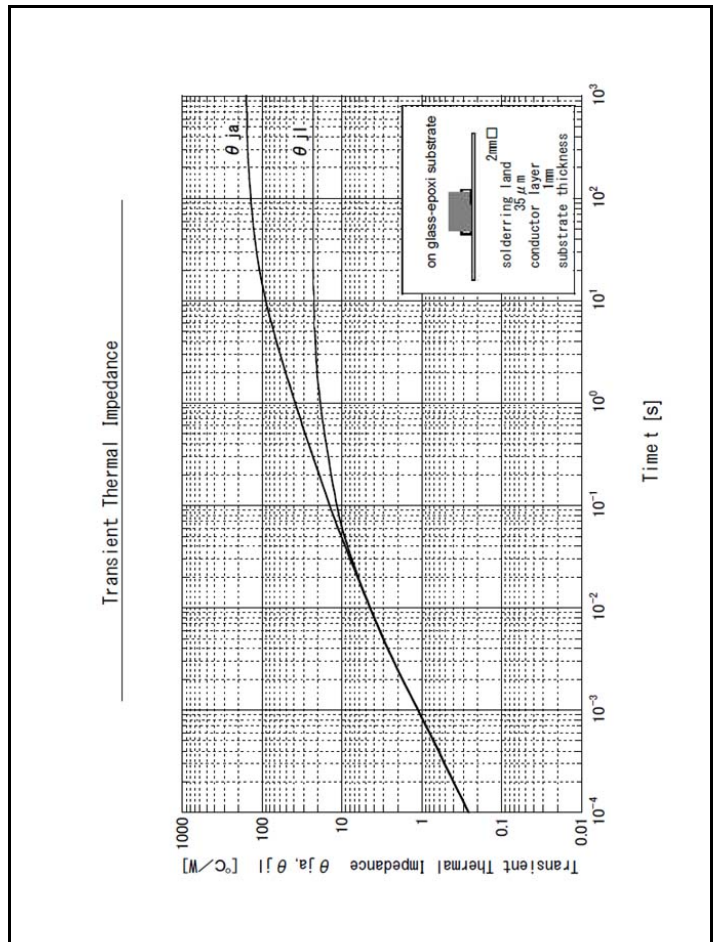
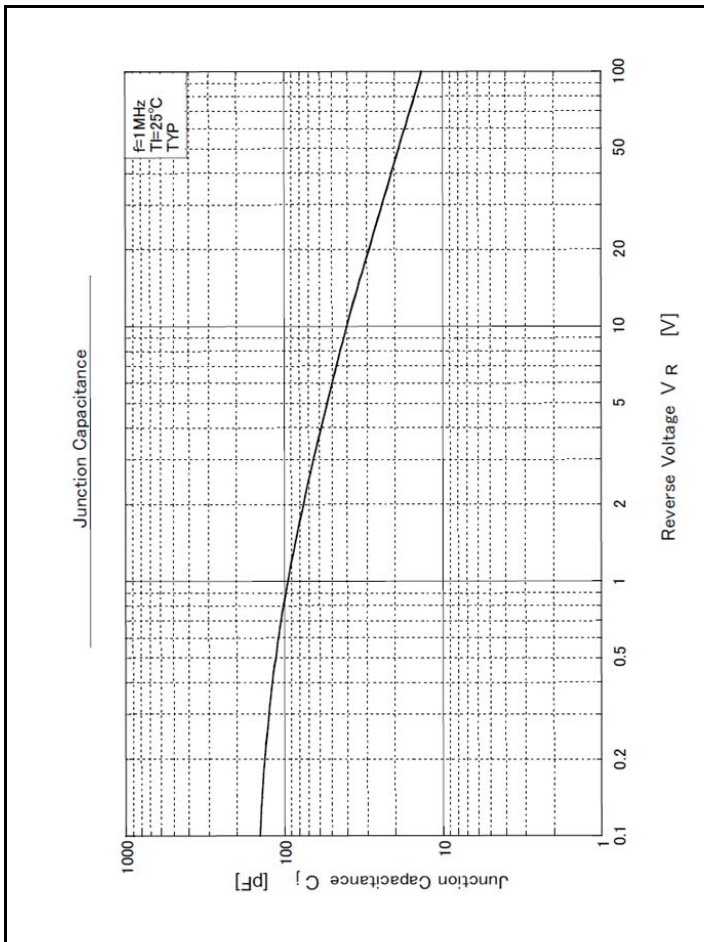
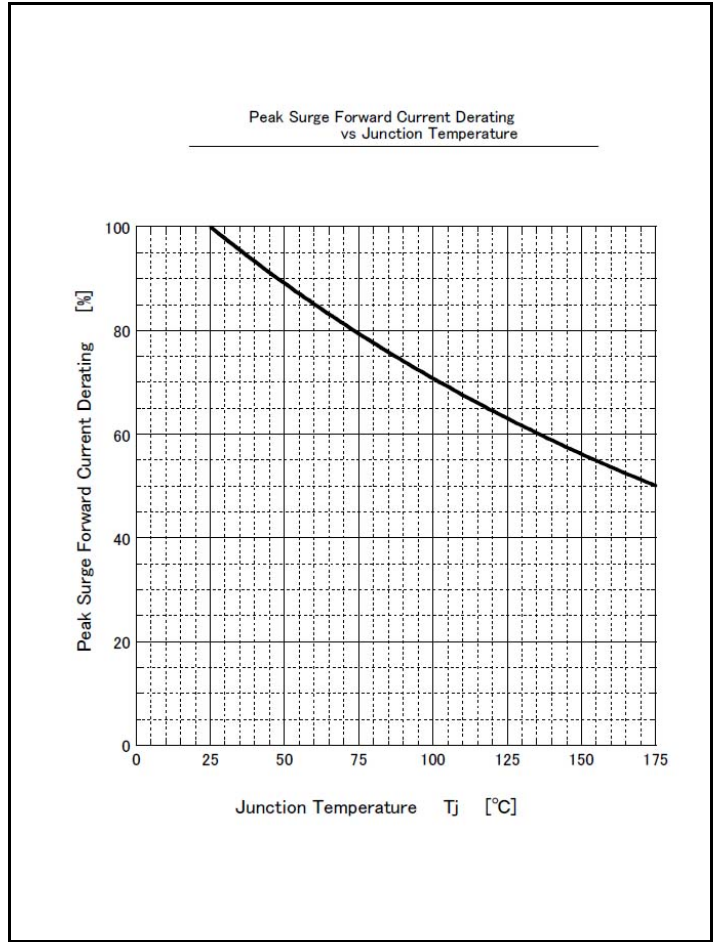
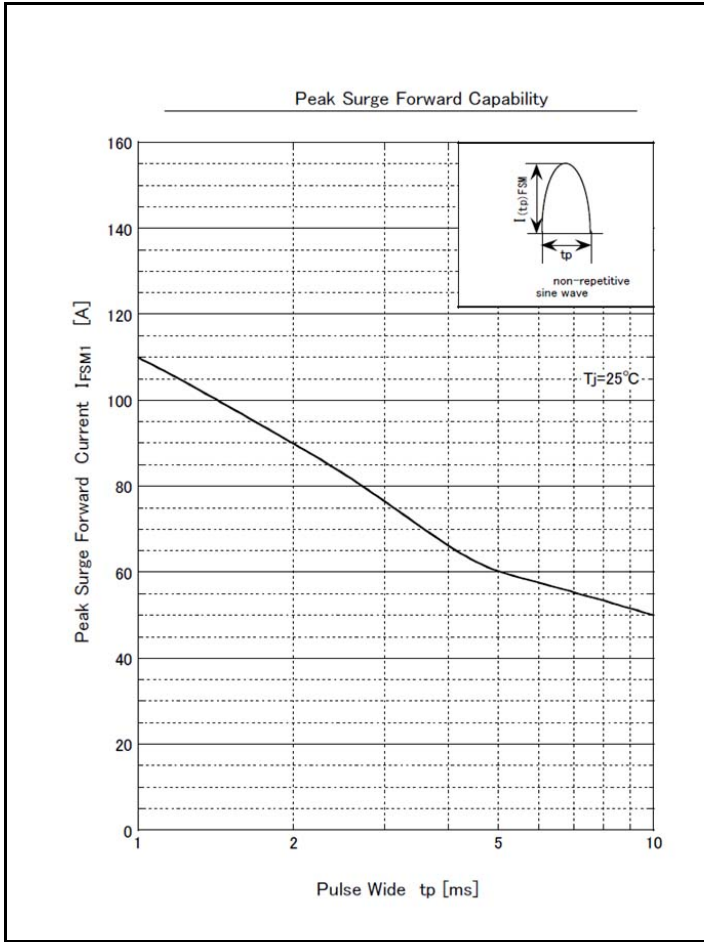


● $V_R = 50V$

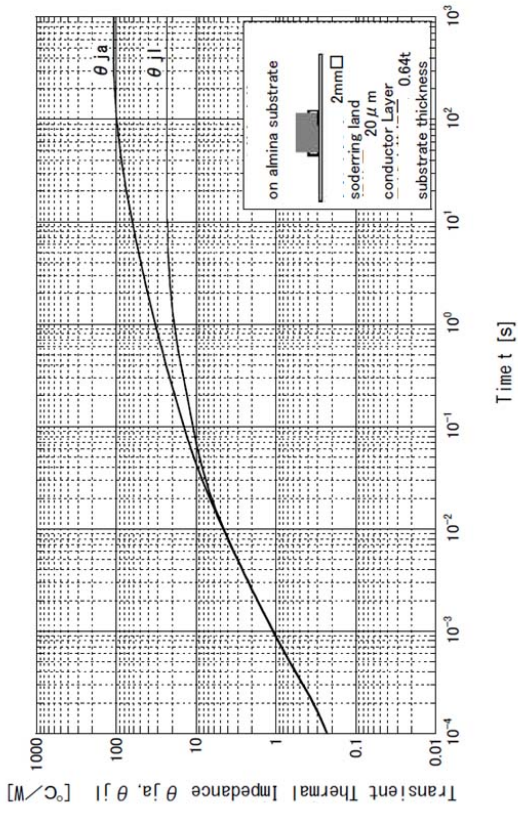


Peak Surge Forward Capability



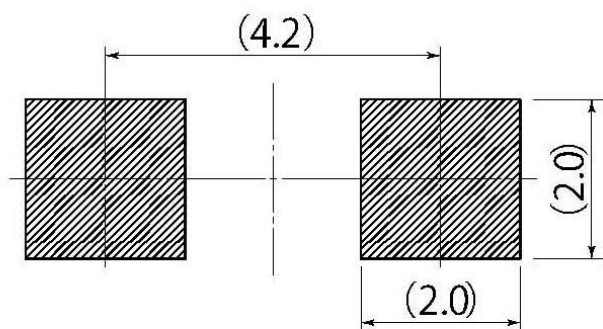
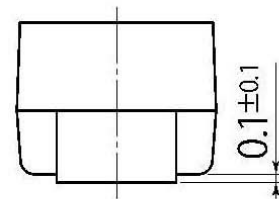
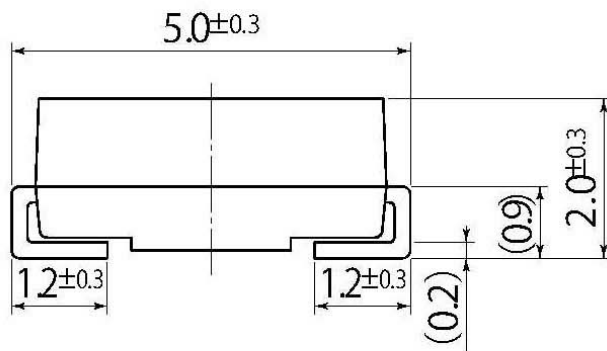
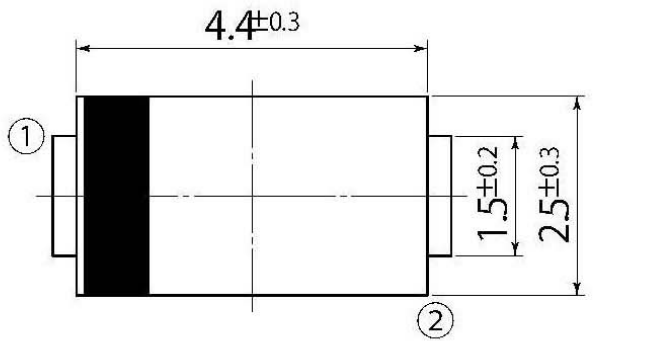


Transient Thermal Impedance



B3

JEDEC Code	DO-214AC
JEITA Code	-
House Name	1F, CF



Referential Soldering Pad

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