

# D1FT4A

## Schottky Barrier Diodes

40V, 3A

### Feature

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

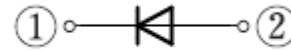
### OUTLINE

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	$T_j$		-55 to 175	$^{\circ}\text{C}$
Repetitive peak reverse voltage	$V_{RRM}$		40	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, $T_l=127^{\circ}\text{C}$	3	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On alumina substrate, $T_a=25^{\circ}\text{C}$ ※	2.2	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, On glass-epoxy substrate, $T_a=25^{\circ}\text{C}$ ※	1.6	A
Surge forward current	$I_{FSM}$	50Hz sine wave, Non-repetitive, 1 cycle, Peak value, $T_j=25^{\circ}\text{C}$	90	A

※ : See the original Specifications

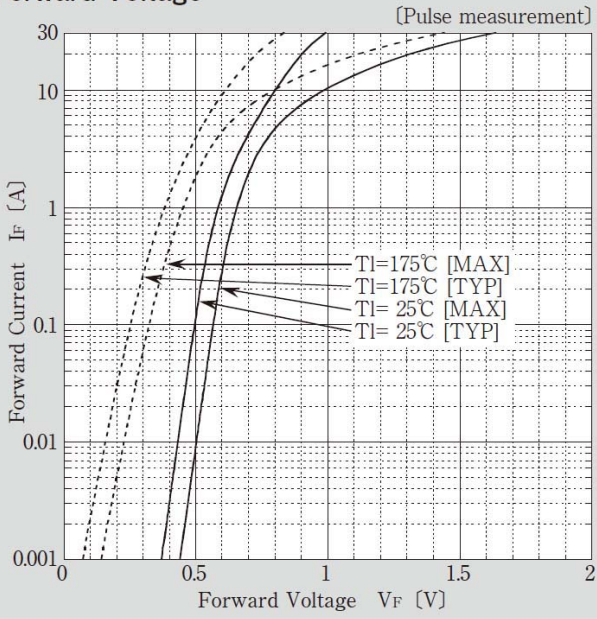
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	$V_F$	$I_F=3A$ , Pulse measurement			0.74	V
Forward voltage	$V_F$	$I_F=1A$ , Pulse measurement			0.66	V
Reverse current	$I_R$	$V_R=40V$ , Pulse measurement			0.008	mA
Total capacitance	$C_t$	$f=1MHz$ , $V_R=10V$		93		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead			23	°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 ※			157	°C/W

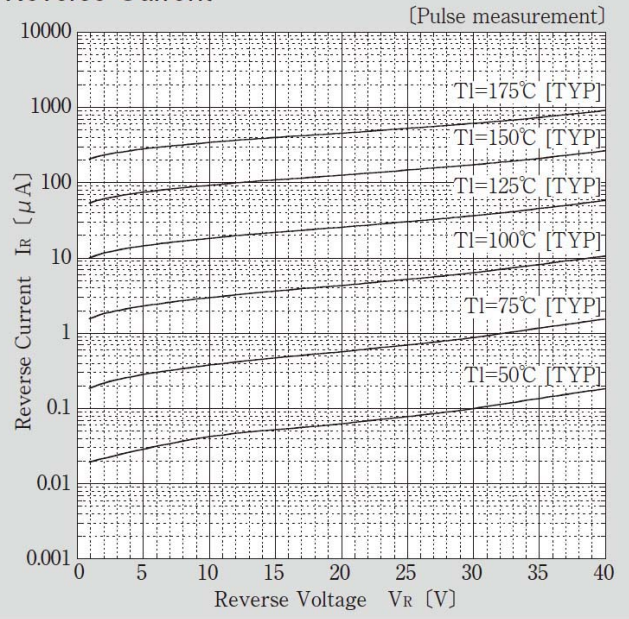
※ :See the original Specifications

# CHARACTERISTIC DIAGRAMS

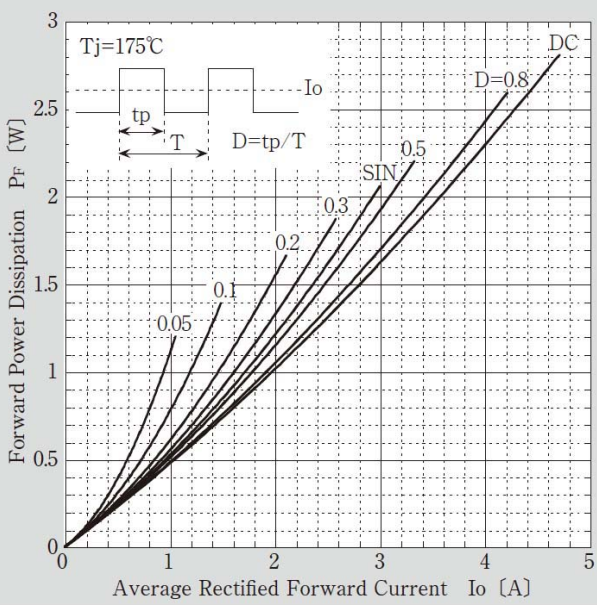
### Forward Voltage



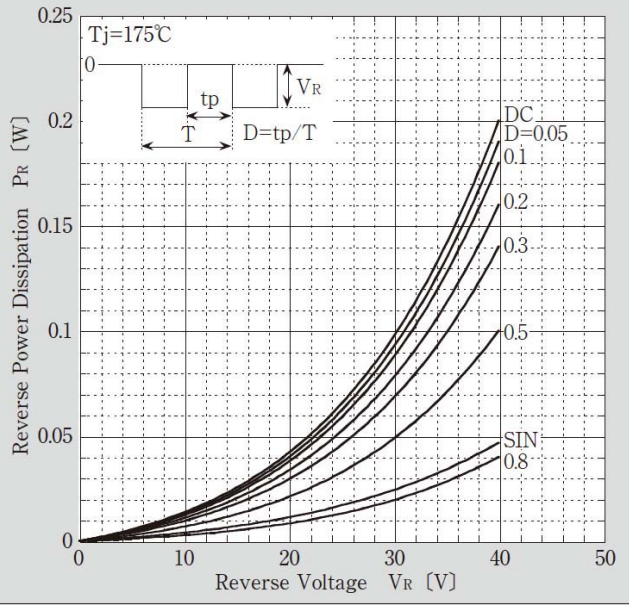
### Reverse Current



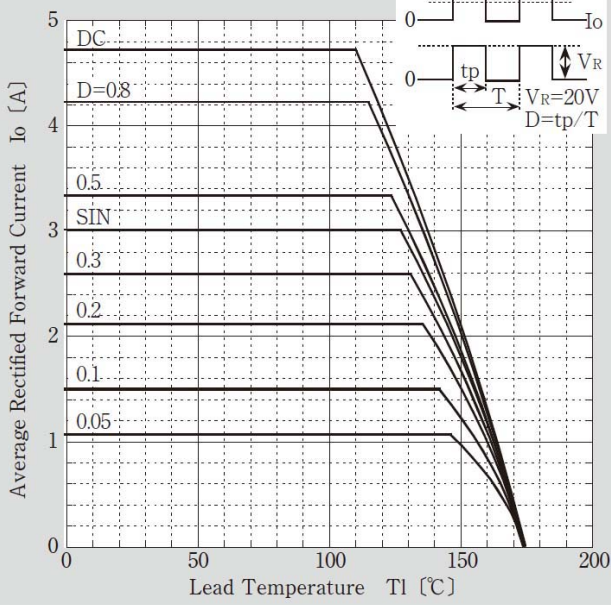
### Forward Power Dissipation



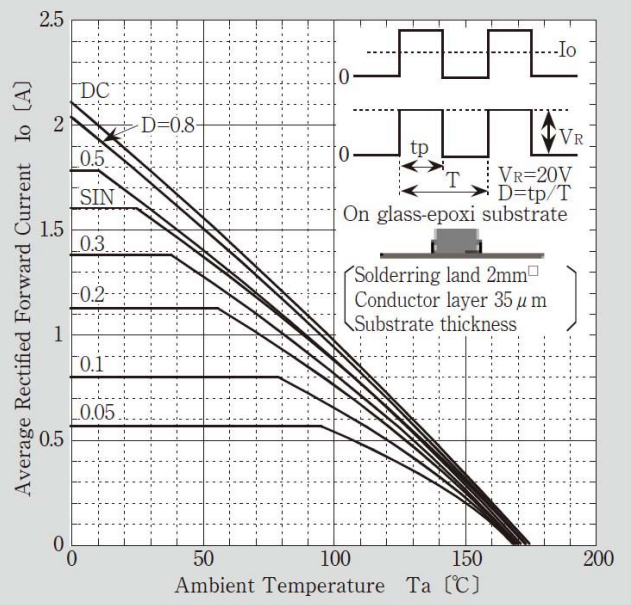
### Reverse Power Dissipation



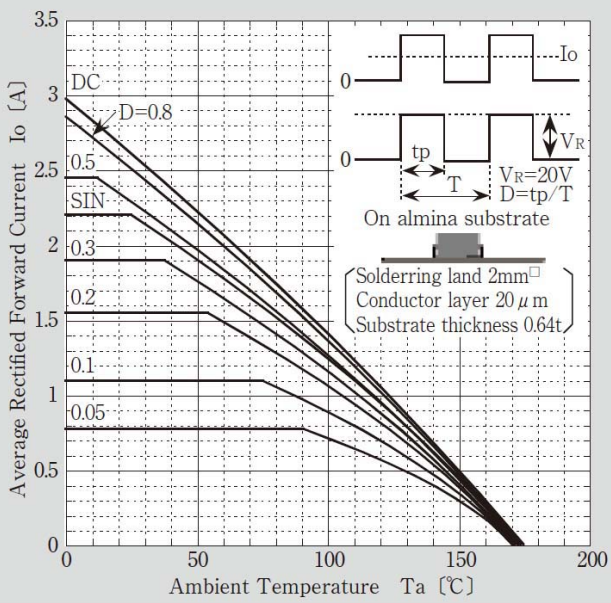
### Derating Curve



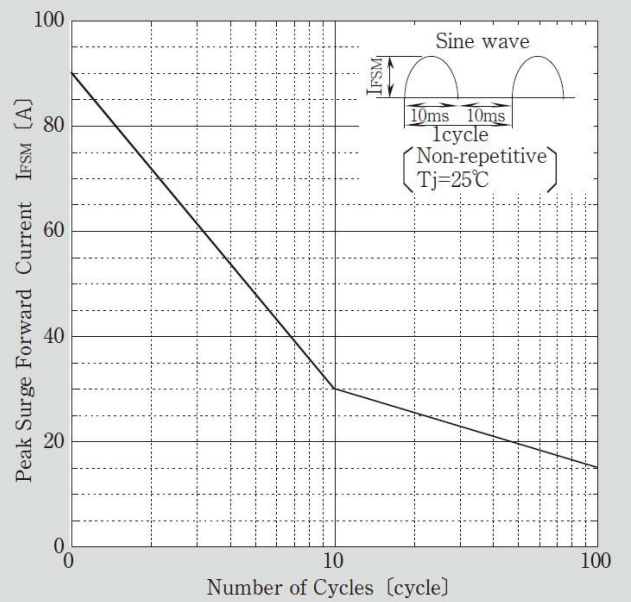
### Derating Curve



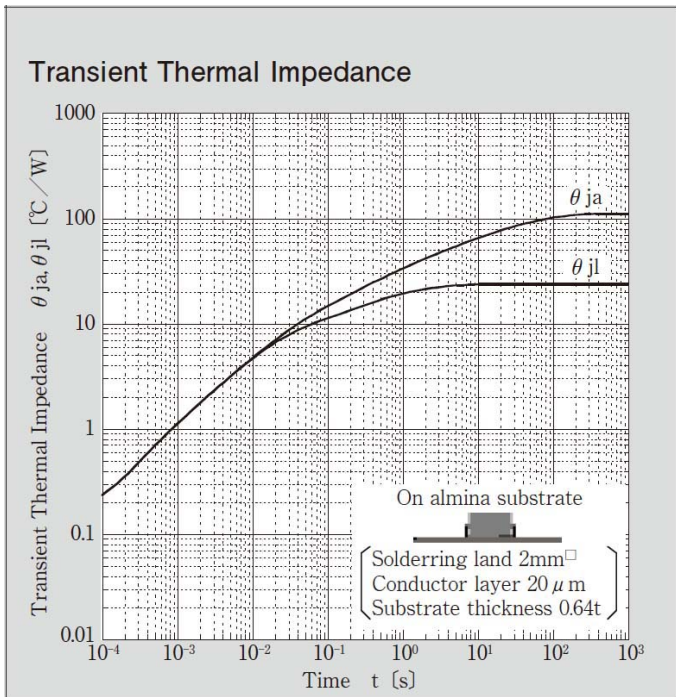
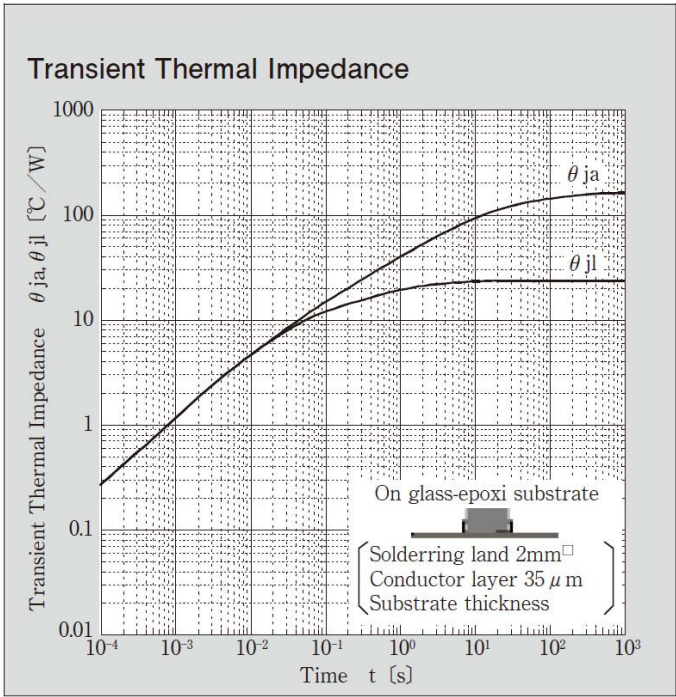
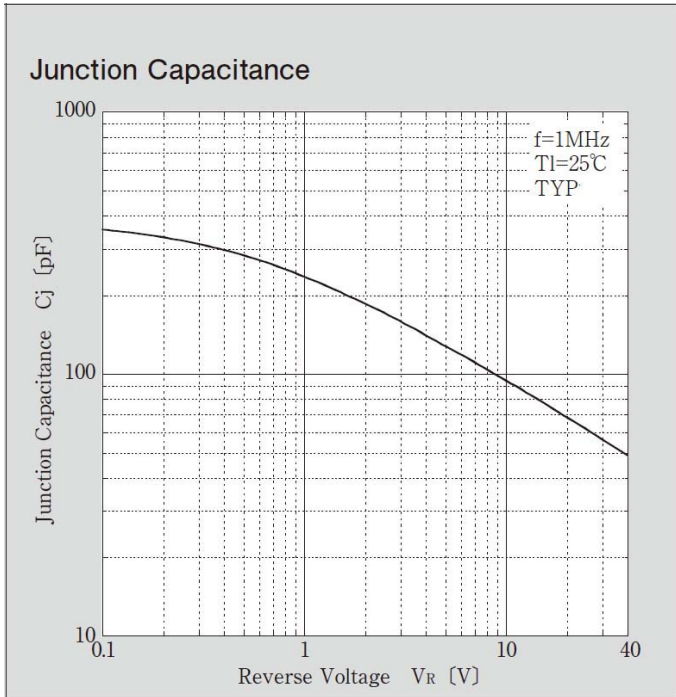
### Derating Curve



### Peak Surge Forward Capability

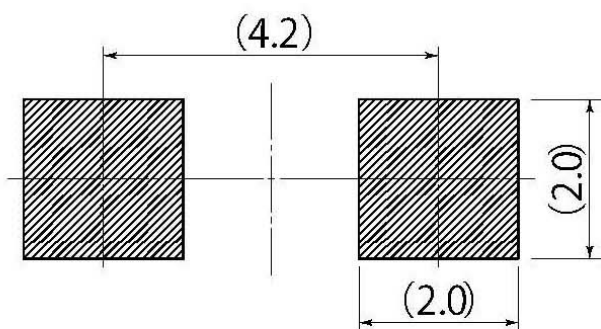
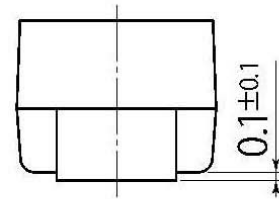
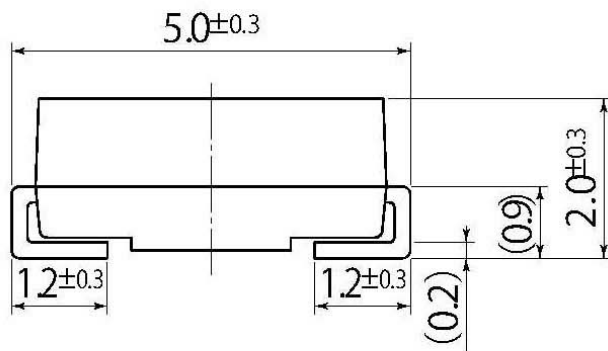
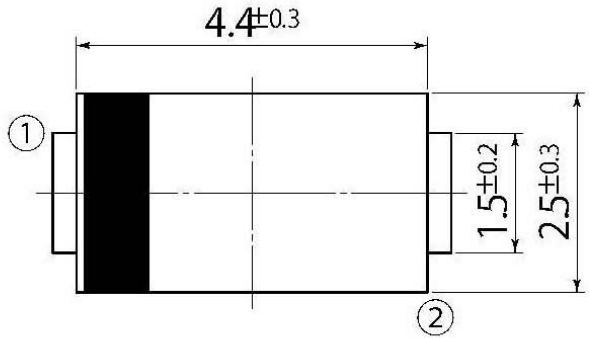






B3

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



Referential Soldering Pad

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

## Notes

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