ShinDengen

D1FJ4

Schottky Barrier Diodes
40V, 2A

Feature

- Small SMD
- High Recovery Speed
- 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 : Tl=25℃)

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	℃
Junction temperature	Tj		-55 to 150	℃
Repetitive peak reverse voltage	V_{RRM}		40	V
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, Tl=117℃	2	A
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, On alumina substrate, Ta=48℃ ※	1.5	A
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=62℃ ※	1	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25℃	50	A

※ ：See the original Specifications

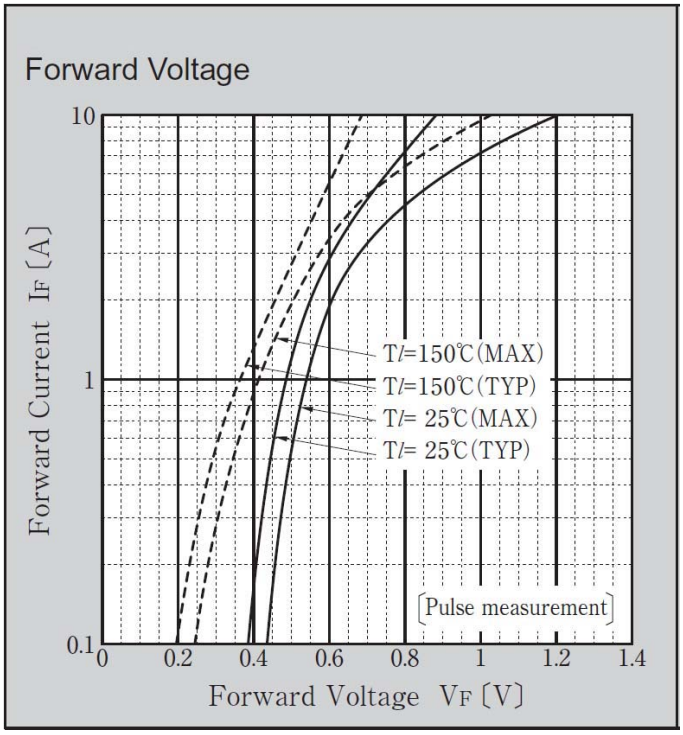
Electrical Characteristics (unless otherwise specified : Tl=25℃)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=2.0A, Pulse measurement			0.61	V
Forward voltage	V_F	IF=1.5A, Pulse measurement			0.57	V
Reverse current	I_R	VR=40V, Pulse measurement			0.2	mA
Total capacitance	Ct	f=1MHz, VR=10V		96		pF
Thermal resistance	Rth(j-l)	Junction to lead			23	℃/W
Thermal resistance	Rth(j-a)	Junction to ambient, On alumina substrate ※			108	℃/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			157	℃/W

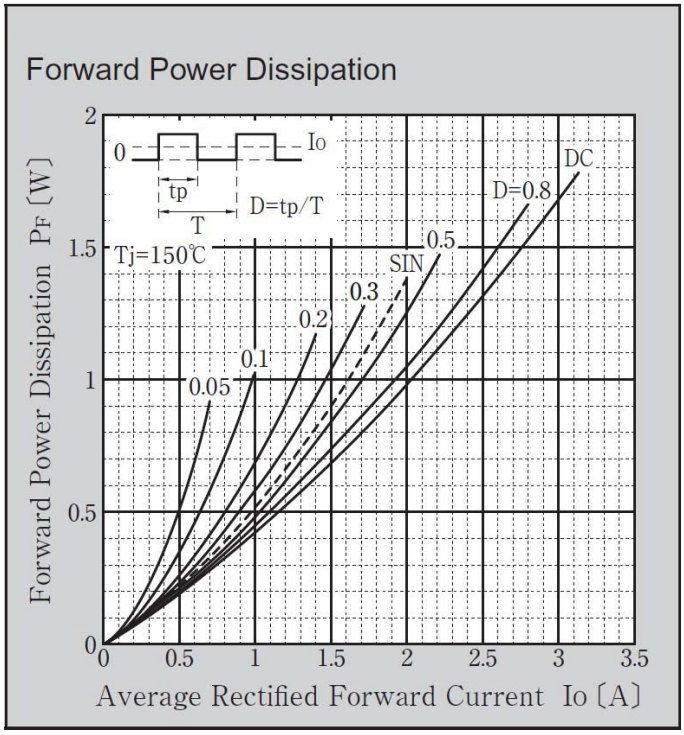
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

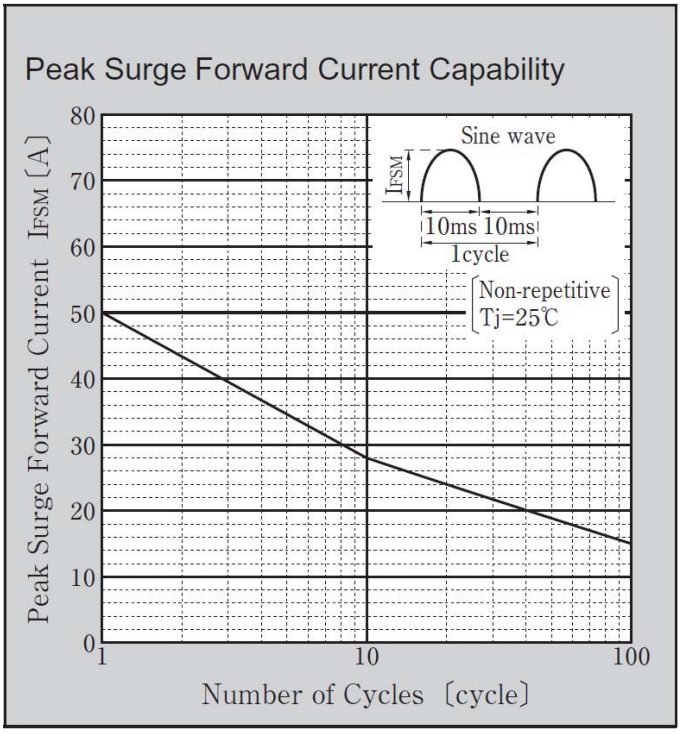
Forward Voltage



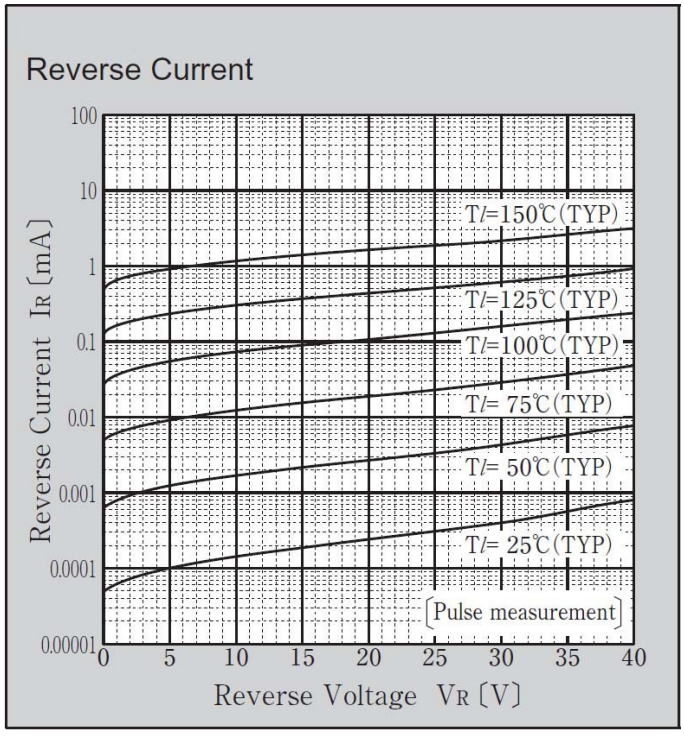
Forward Power Dissipation



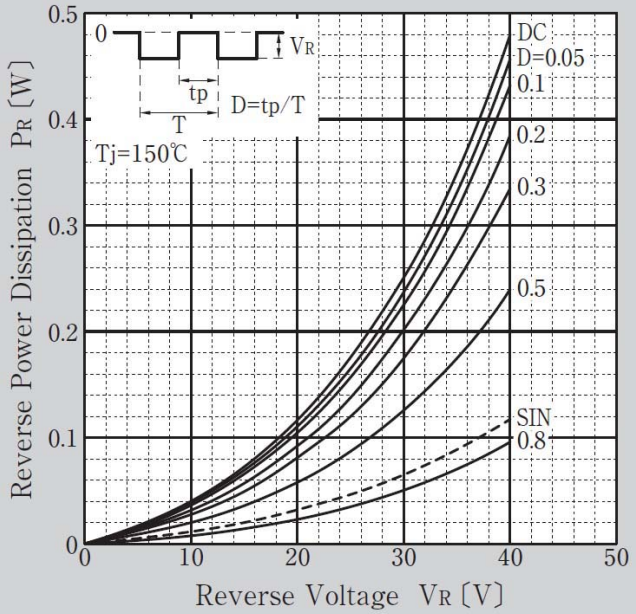
Peak Surge Forward Current Capability



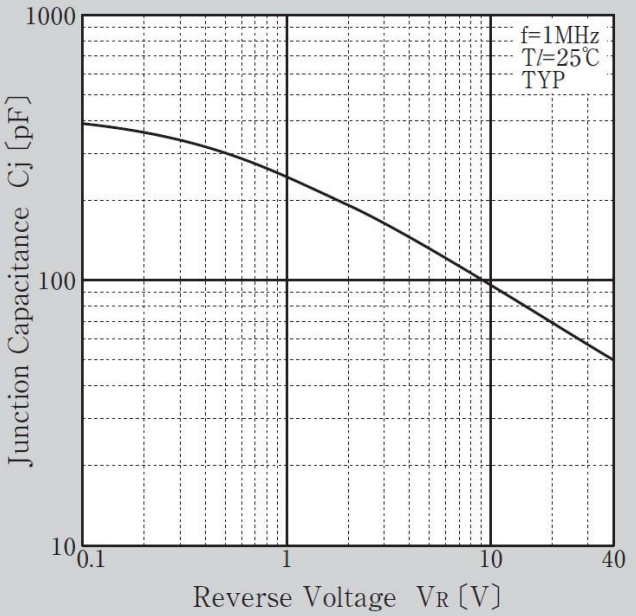
Reverse Current



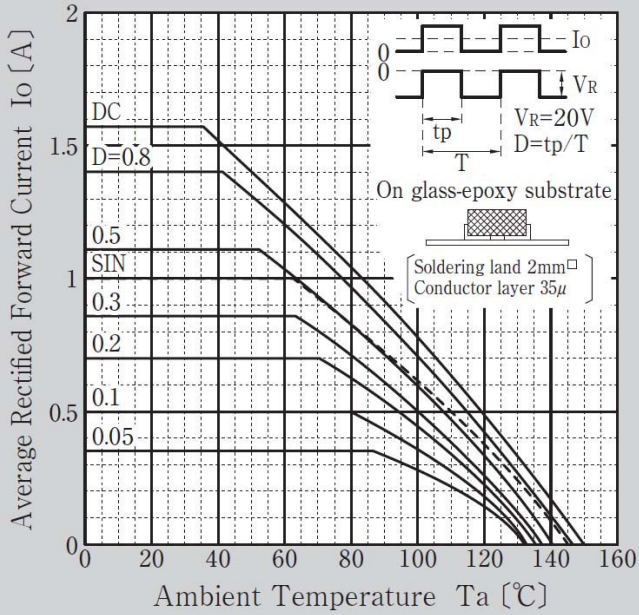
Reverse Power Dissipation



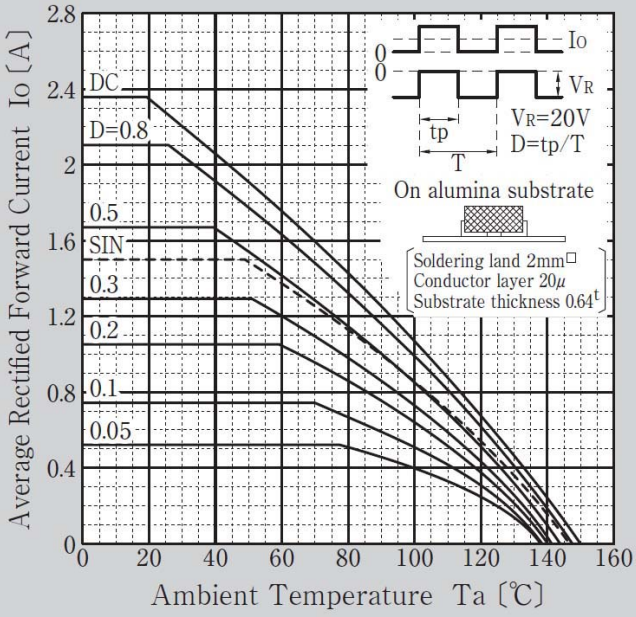
Junction Capacitance

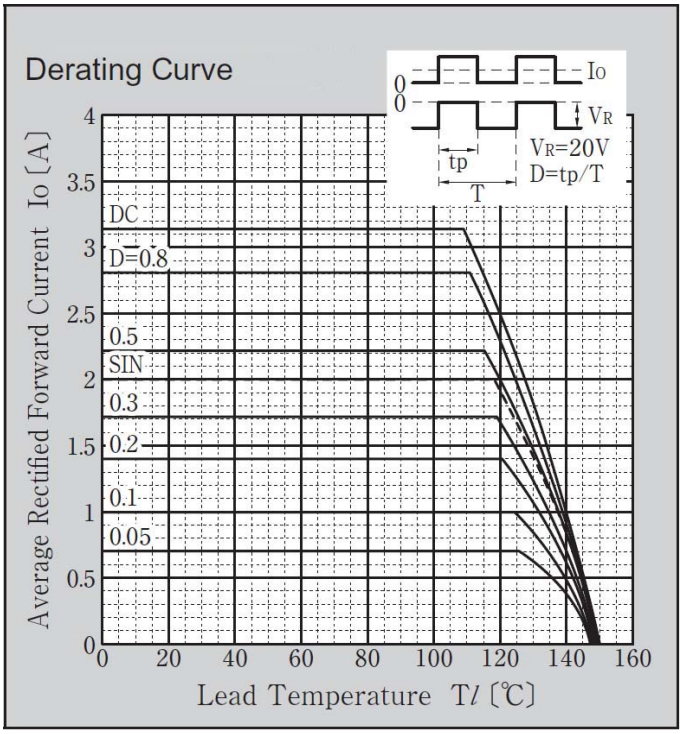


Derating Curve



Derating Curve




Derating Curve
Io
VR
VR=20V
D=tp/T
tp
T
0
0
Average Rectified Forward Current Io〔A〕
Lead Temperature Tl〔℃〕
DC
D=0.8
0.5
SIN
0.3
0.2
0.1
0.05
0
0.5
1
1.5
2
2.5
3
3.5
4
0
20
40
60
80
100
120
140
160

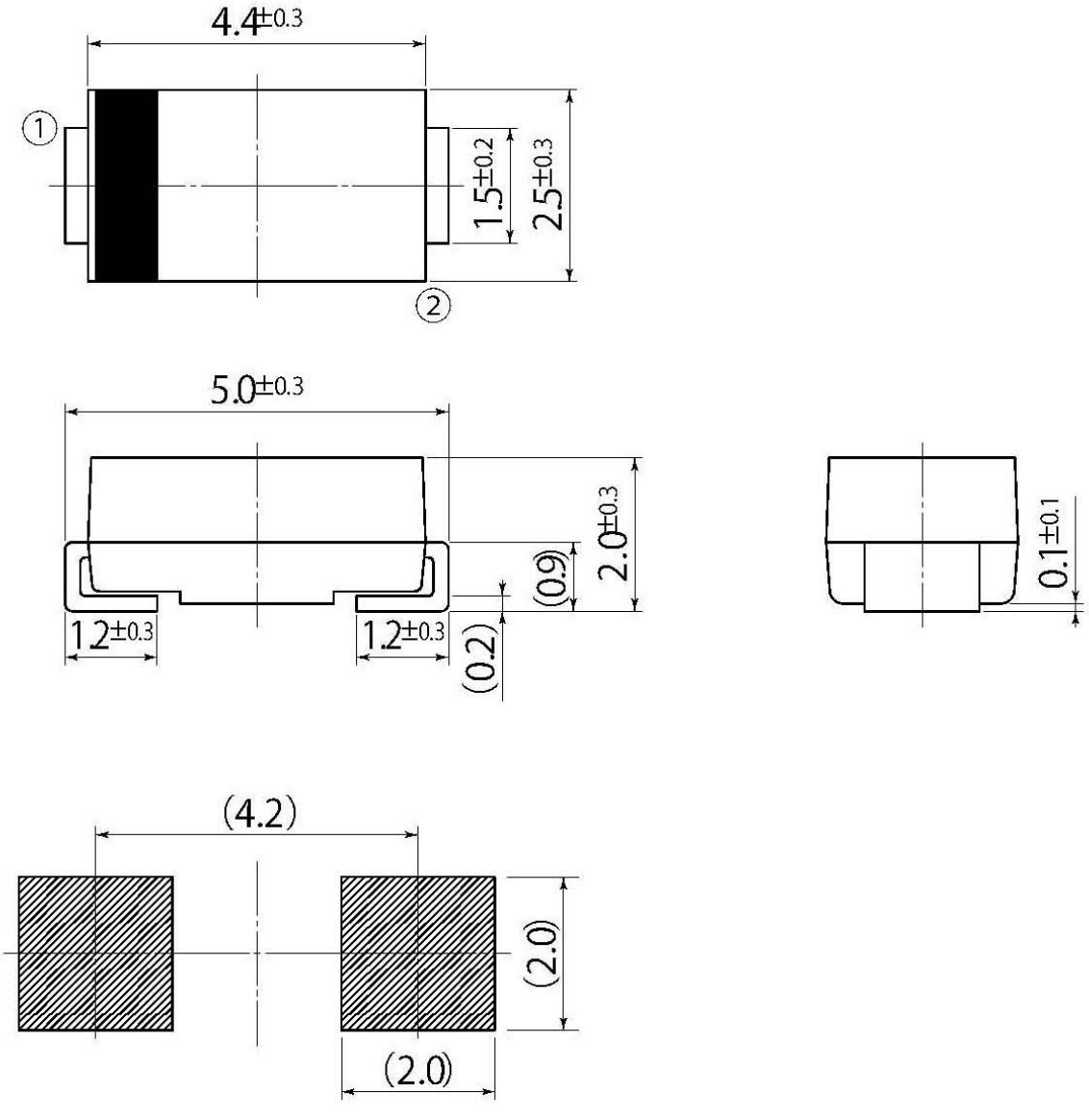
Outline Dimensions

unit:mm

scale: 10/1

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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