ShinDengen

KL3R20

Thyristor Surge Suppressors
175V, 30A

Feature

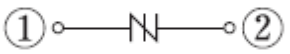
- Bi-directional characteristic
- High-speed response characteristic
- Large surge current capacity
- Capable of repeated use for surges
- Pb free terminal
- RoHS:Yes

OUTLINE

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



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-40 to 125	℃
Junction temperature	Tj		125	℃
Repetitive peak reverse voltage	V_{DRM}		175	V
Peak surge on-state current	I_{TSM}	10/1000μs, Non-repetitive	30	A
Peak surge on-state current	I_{TSM}	8/20μs, Non-repetitive	100	A

※ ：See the original Specifications

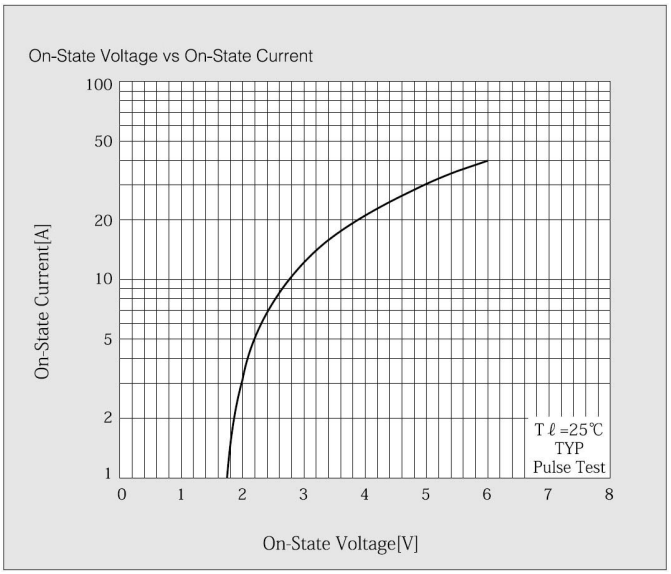
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakover voltage	V_{BO}	Pulse measurement	180			V
Clamping voltage	V_{CL}	dV/dt=100V/μs			250	V
Off-state current	I_{DSM}	VD=175V			10	μA
Holding current	I_H	Pulse measurement	100			mA
On-State Voltage	V_T	IT=2A		1.8		V
Junction capacitance	Cj	f=1kHz, VD=50VDC, OSC=1Vrms			30	pF

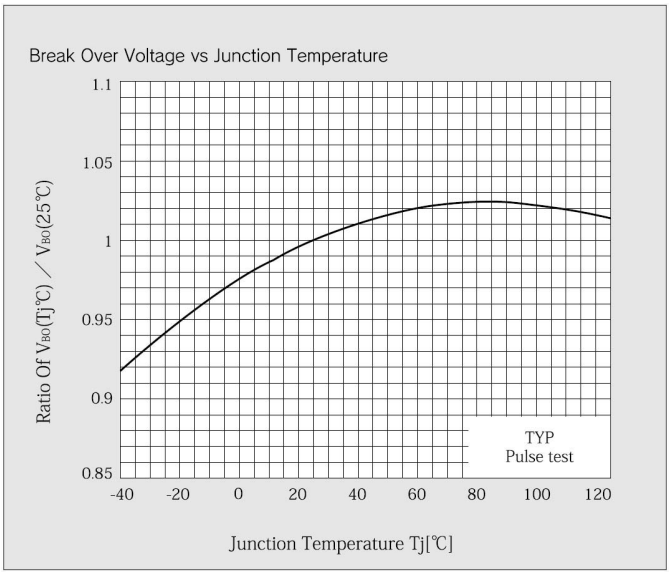
※ ：See the original Specifications

CHARACTERISTIC DIAGRAMS

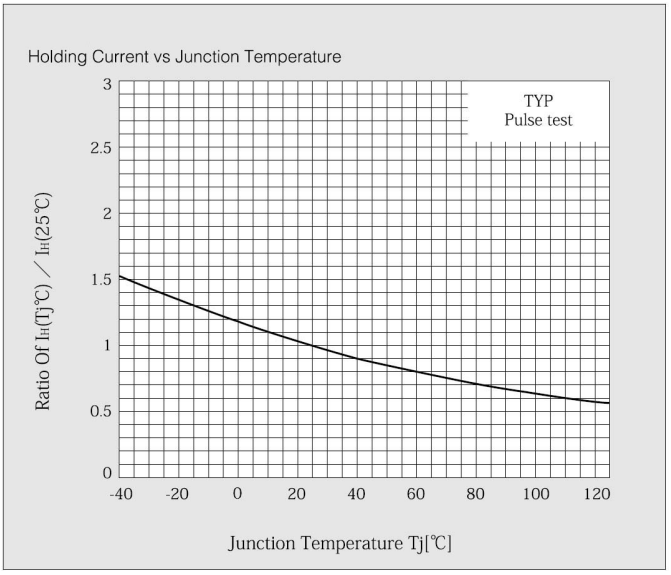
On-State Voltage vs On-State Current



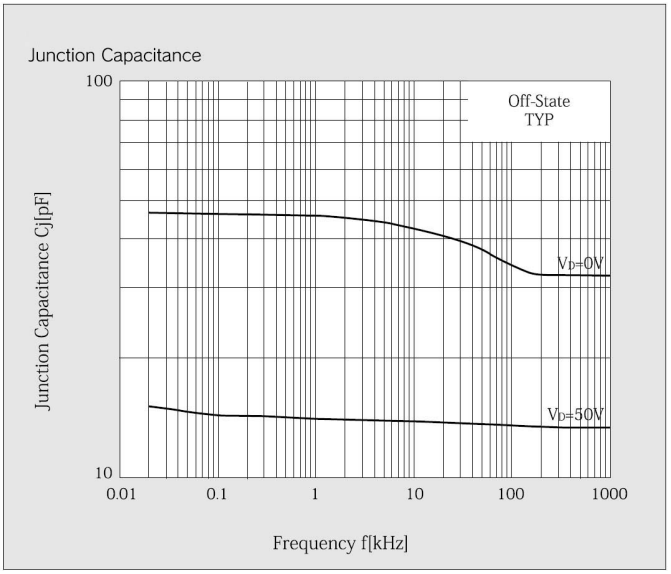
Break Over Voltage vs Junction Temperature

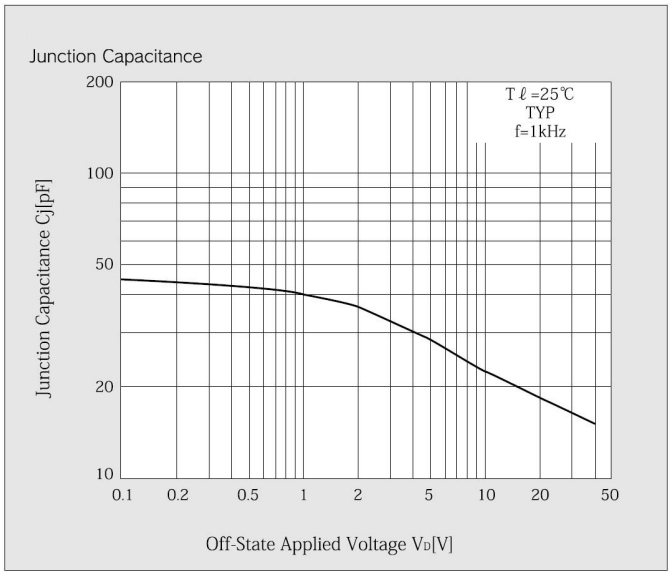


Holding Current vs Junction Temperature



Junction Capacitance



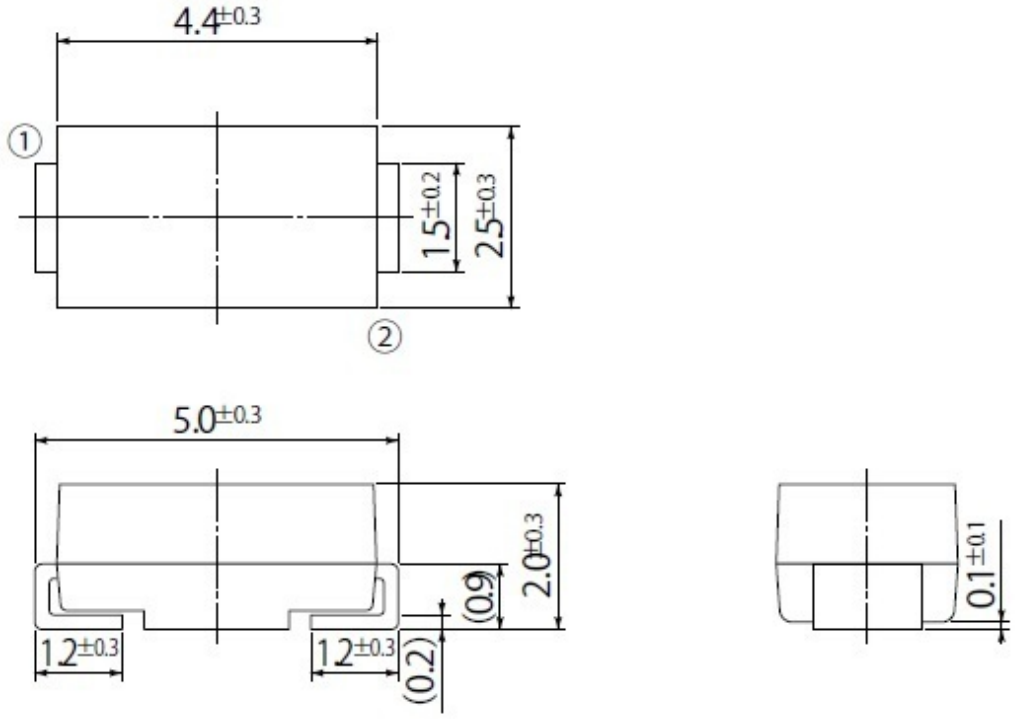

Junction Capacitance
T ℓ =25℃
TYP
f=1kHz
Junction Capacitance Cj[pF]
200
100
50
20
10
0.1
0.2
0.5
1
2
5
10
20
50
Off-State Applied Voltage VD[V]

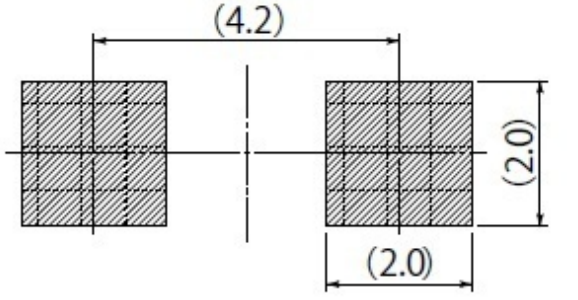
Outline Dimensions

unit:mm

B4

JEDEC Code	DO-214AC
JEITA Code	–
House Name	1F

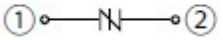




Referential Soldering Pad

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

Fig. B4-3



• The content specified herein is subject to change for improvement without notice.
• If you wish to use any such products, please be sure to refer to the specifications.

U182-1(2026.09)

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   【Special applications】
   Transportation equipment (vehicles, ships, etc.), trunk-line communication equipment, traffic signal control systems, anti-disaster/crime systems, safety equipment, medical equipment, etc.
   【Specific applications】
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