ShinDengen

DE5VE40

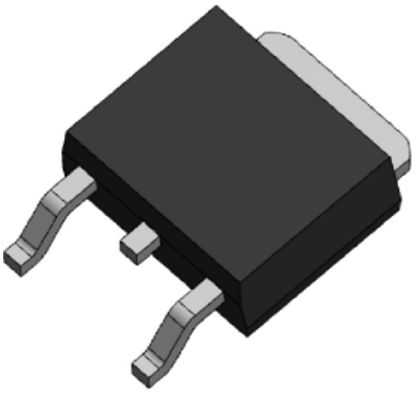
General Rectifying Diodes
400V, 5A

Feature

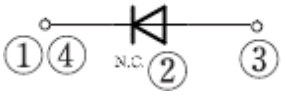
- SMD
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): E-pack
Package (JEITA Code): SC-63



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	T_{stg}		-55 to 150	°C
Junction temperature	T_j		-55 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		400	V
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, On almina substrate, with heatsink, Tc=130°C ※	5	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	80	A
Current squared time	I^2t	1ms≦tp＜10ms, Tj=25°C	32	A^2s

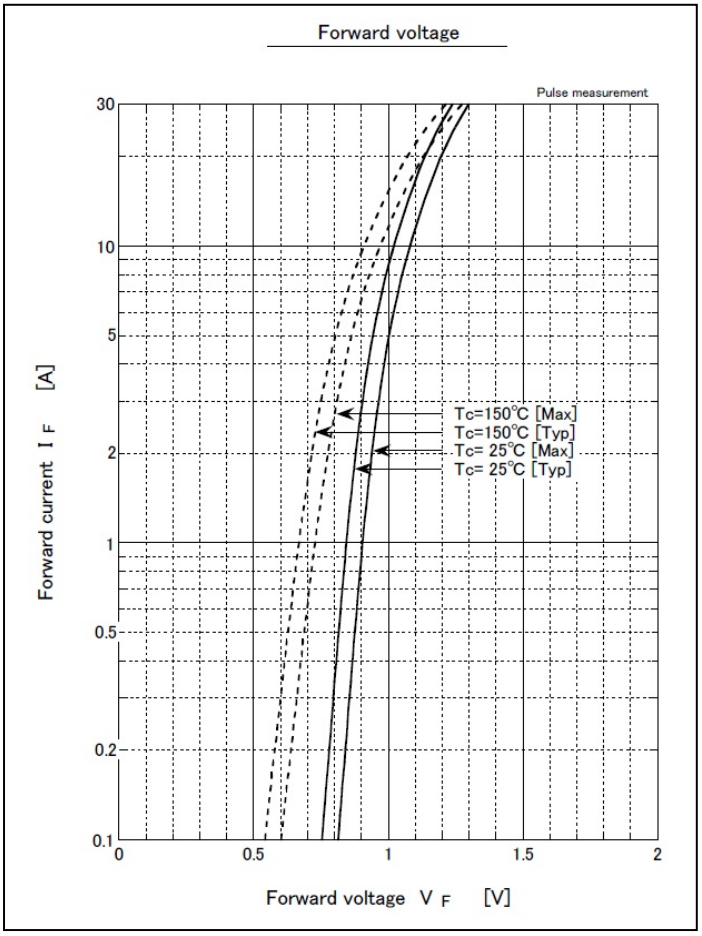
※ ：See the original Specifications

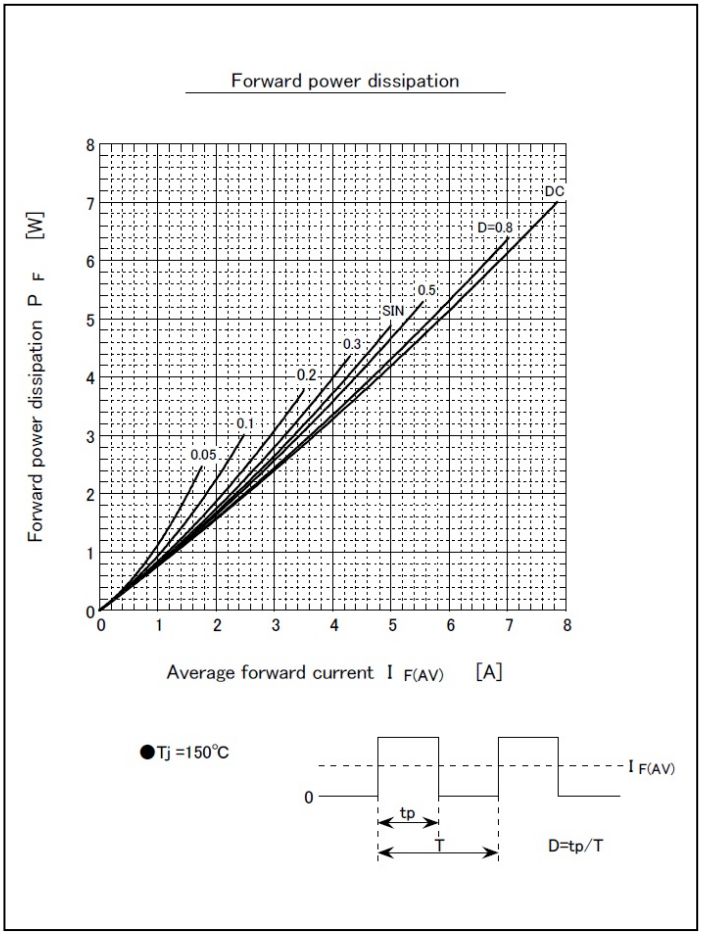
Electrical Characteristics (unless otherwise specified : Tc=25°C)

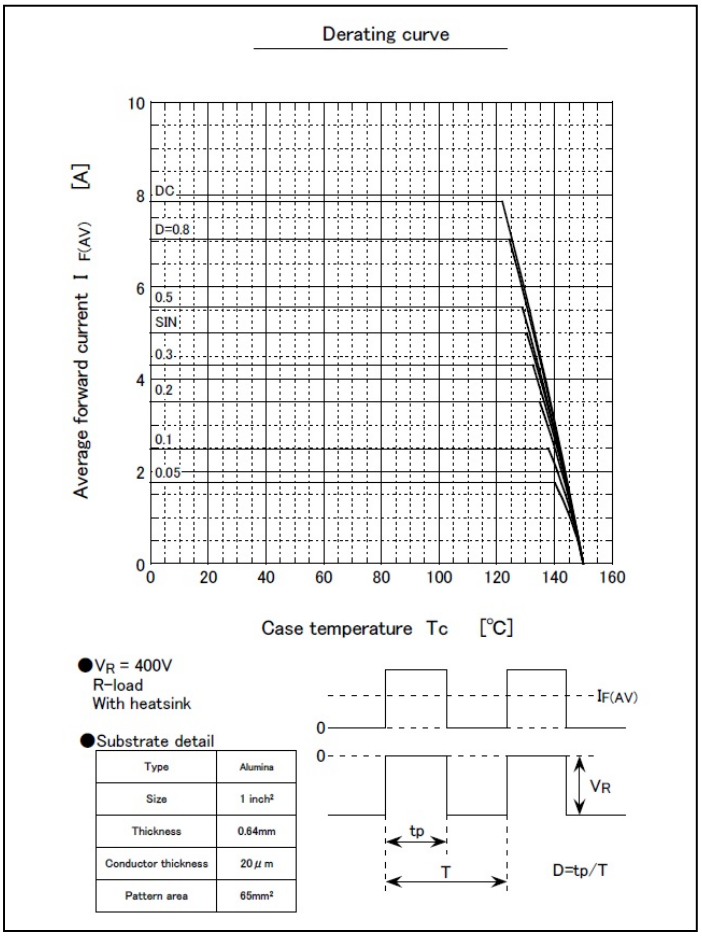
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF＝5A, Pulse measurement			1	V
Reverse current	I_R	VR=400V, Pulse measurement			10	μA
Electro static dischange Capability	V_{ESD}	C=150pF, R=150Ω, Polarity±, Aerial discharge		30		kV
Thermal resistance	$R_{th(j-c)}$	Junction to case, On alumina substrate, With heatsink ※			4	°C/W

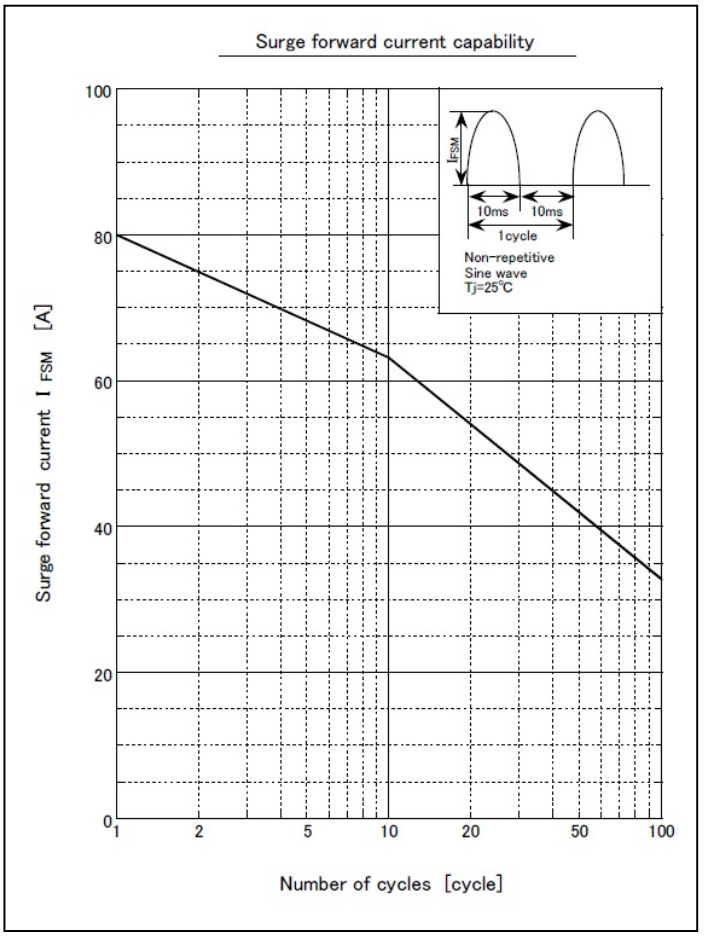
※ ：See the original Specifications

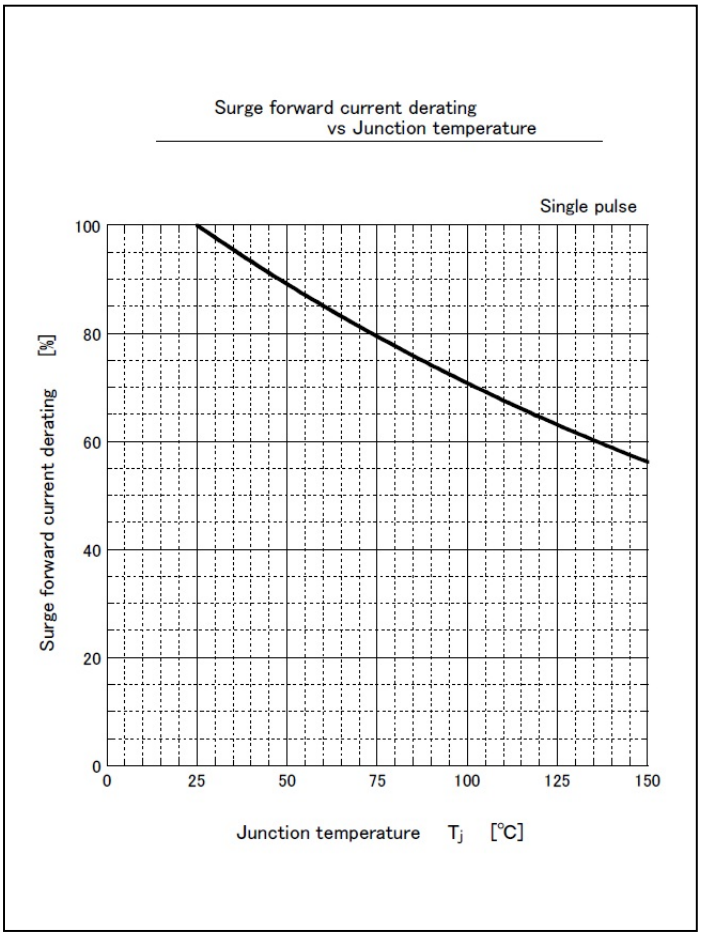
CHARACTERISTIC DIAGRAMS

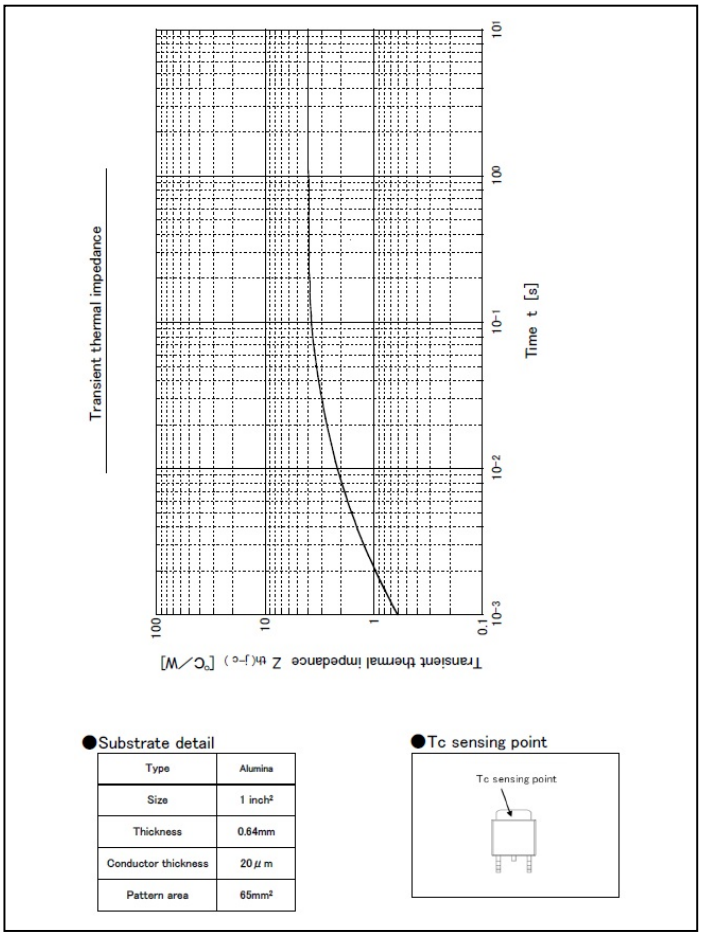









Surge forward current derating
vs Junction temperature
Single pulse
Surge forward current derating [%]
100
80
60
40
20
0
0
25
50
75
100
125
150
Junction temperature Tj [°C]

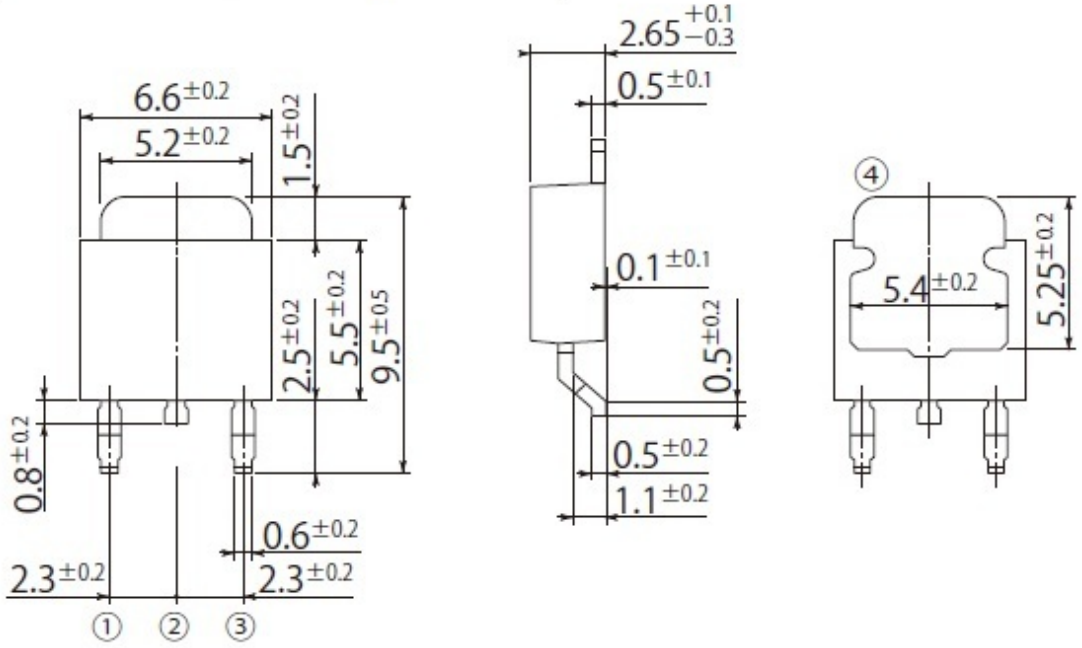

Transient thermal impedance
Time t [s]
Transient thermal impedance Z th(j-c) [°C/W]
●Substrate detail
Type Alumina
Size 1 inch²
Thickness 0.64mm
Conductor thickness 20μm
Pattern area 65mm²
●Tc sensing point
Tc sensing point

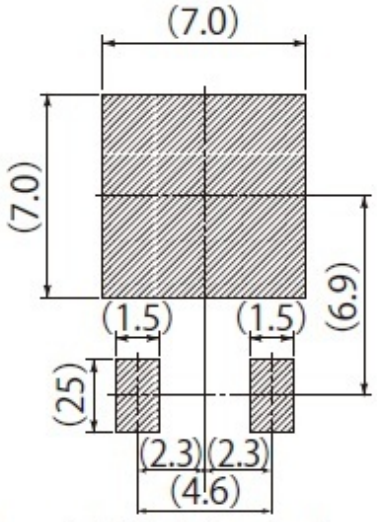
Outline Dimensions

unit:mm

G1

JEDEC Code	–
JEITA Code	SC-63
House Name	E-pack

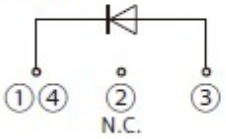




Referential Soldering Pad

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

Fig. G1-5



- 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)

Notes

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   【Standard applications】
   Computers, office automation and other office equipment, communication terminals, test and measurement equipment, audio/visual equipment, amusement equipment, consumer electronics, machine tools, personal electronic equipment, industrial equipment, etc.
   【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】
   Nuclear reactor control systems, aircraft, aerospace equipment, submarine repeaters, life support equipment and systems, etc.
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