D3CE60V

General Rectifying Diodes
600V, 3.0A

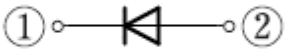
Feature

- Ultra-small SMD
- Ultra-thin PKG=1.0mm
- Available for automotive use
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): CE
Package (JEITA Code): SC-110B

Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : Tl=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}		600	V
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, Tl=101°C	3	A
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	1.15	A
Average forward current	$I_{F(AV)}$	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	0.8	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C	50	A
Surge forward current	I_{FSM1}	tp=1ms, sine wave, Non-repetitive, peak value, Tj=25°C	110	A

※ ：See the original Specifications

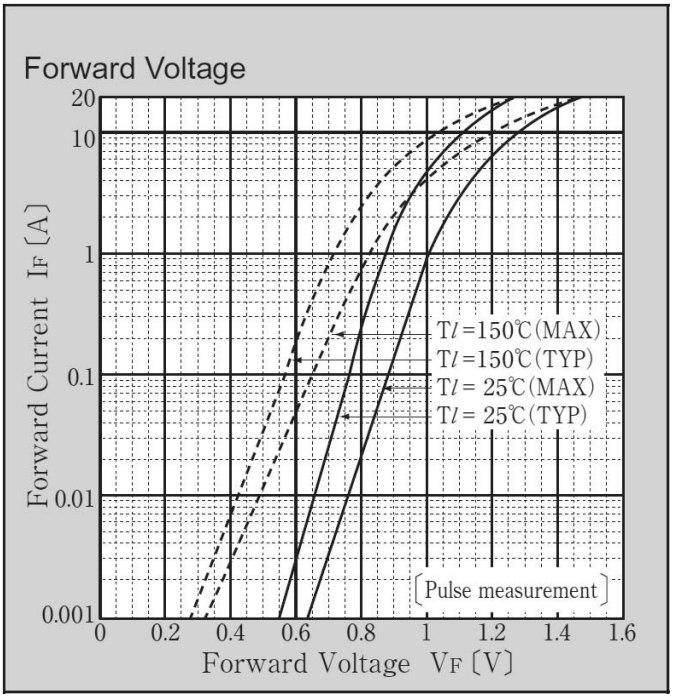
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF＝3A, Pulse measurement			1.1	V
Reverse current	I_R	VR=600V, Pulse measurement			10	μA
Thermal resistance	$R_{th(j-l)}$	Junction to lead			15	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			115	°C/W
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			172	°C/W

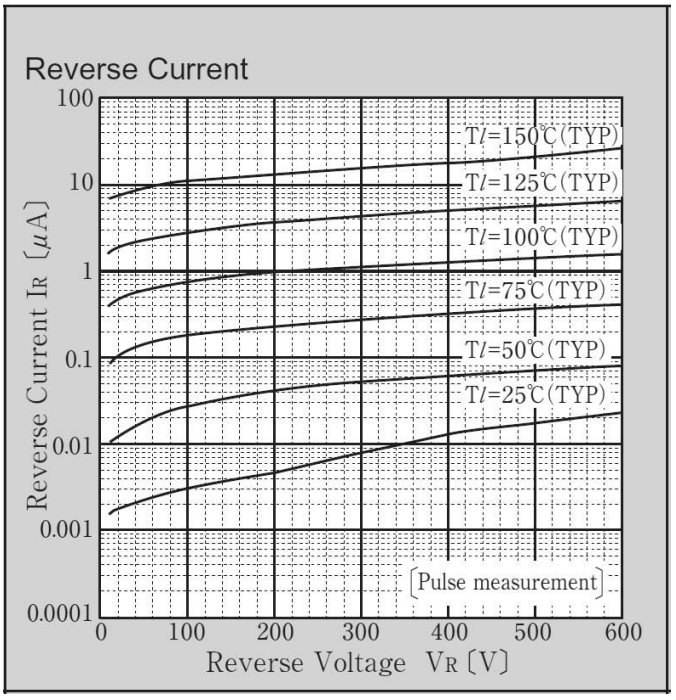
※ ：See the original Specifications

CHARACTERISTIC DIAGRAMS

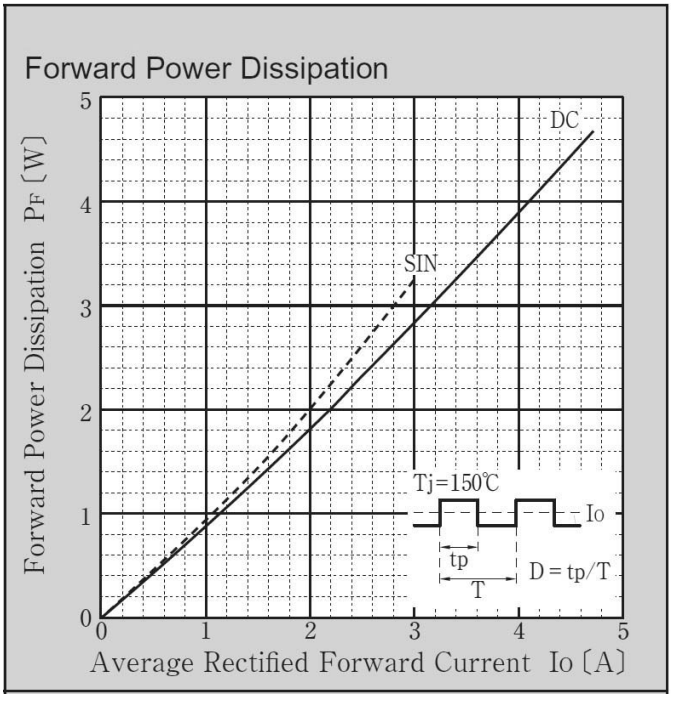
Forward Voltage



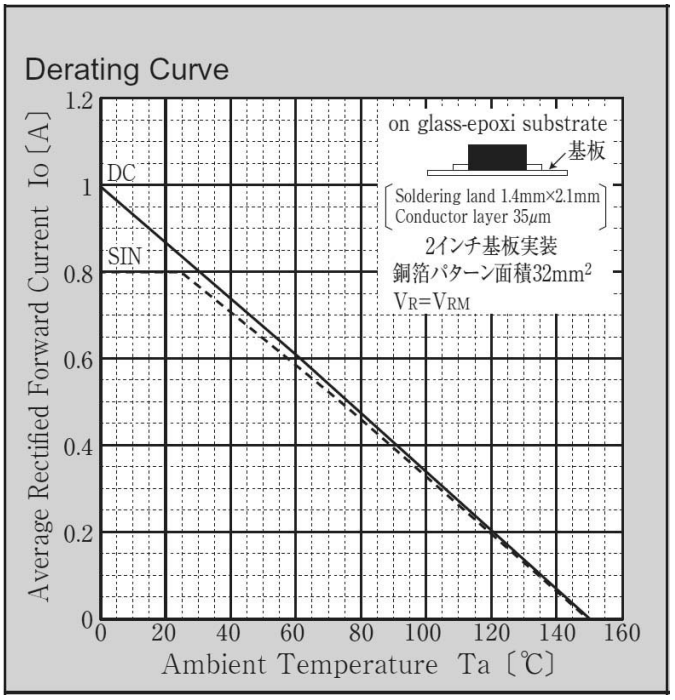
Reverse Current



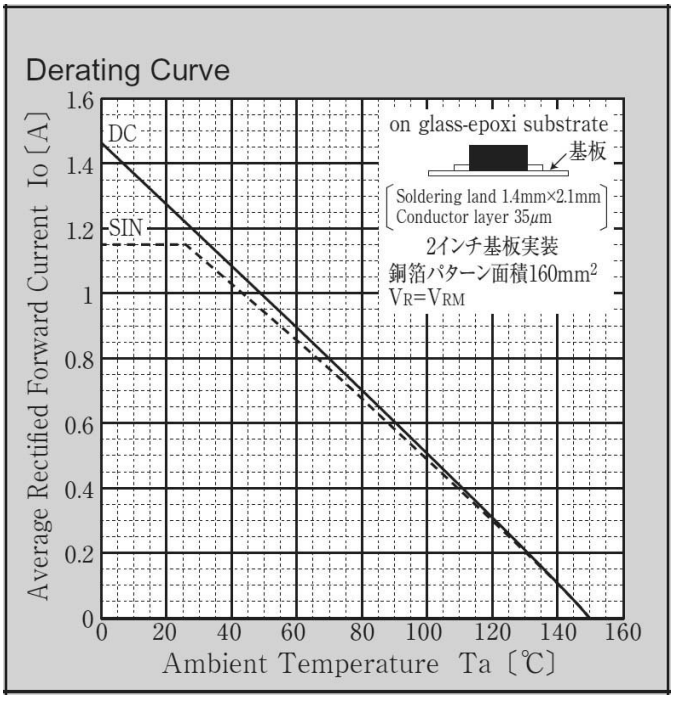
Forward Power Dissipation



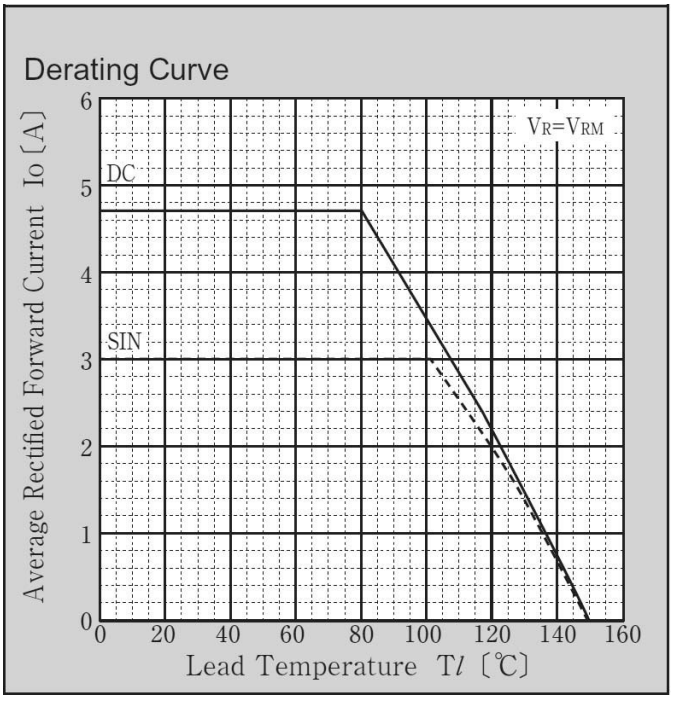
Derating Curve



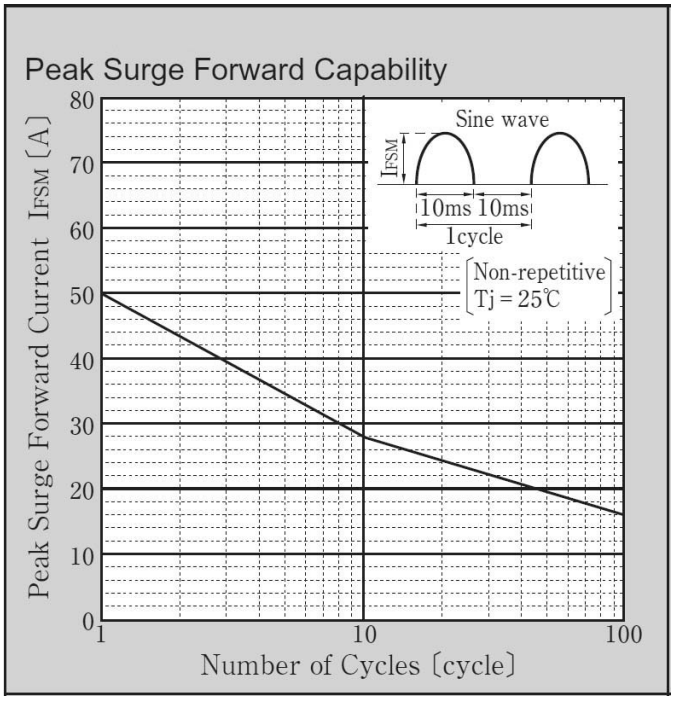
Derating Curve



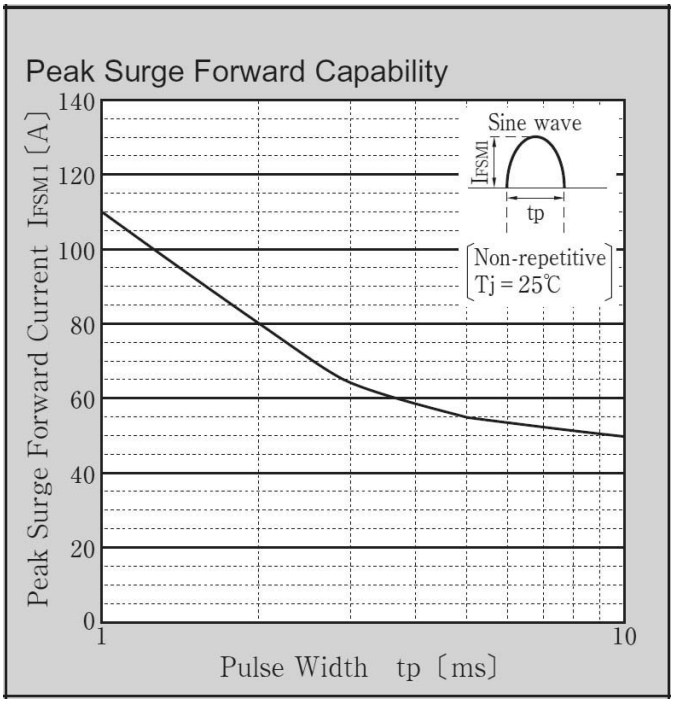
Derating Curve

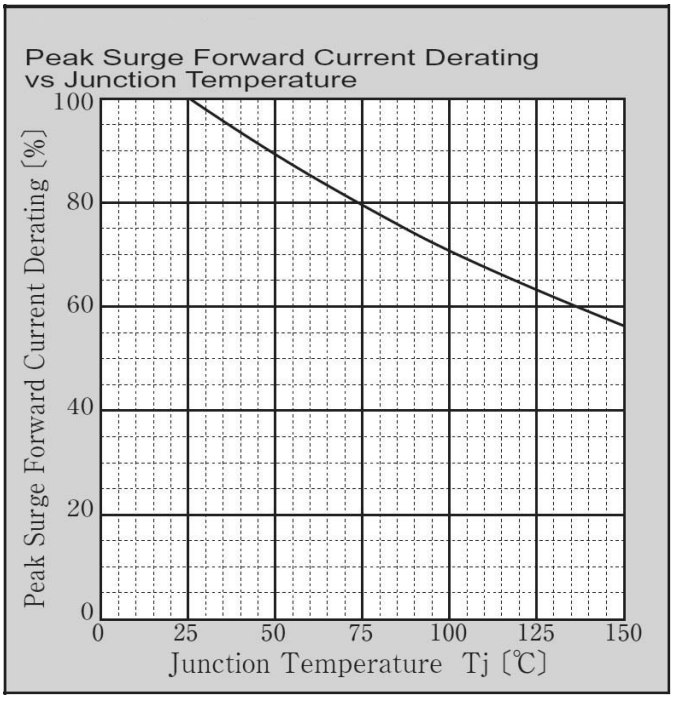


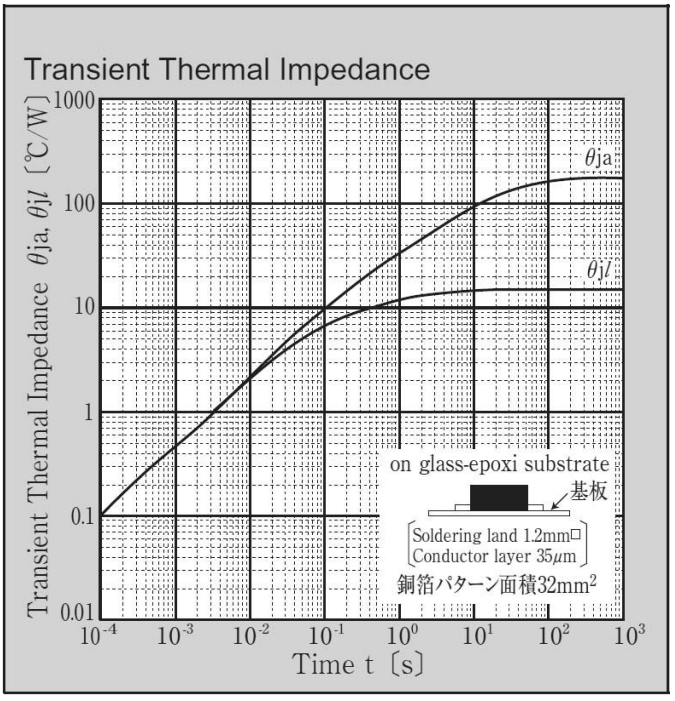
Peak Surge Forward Capability

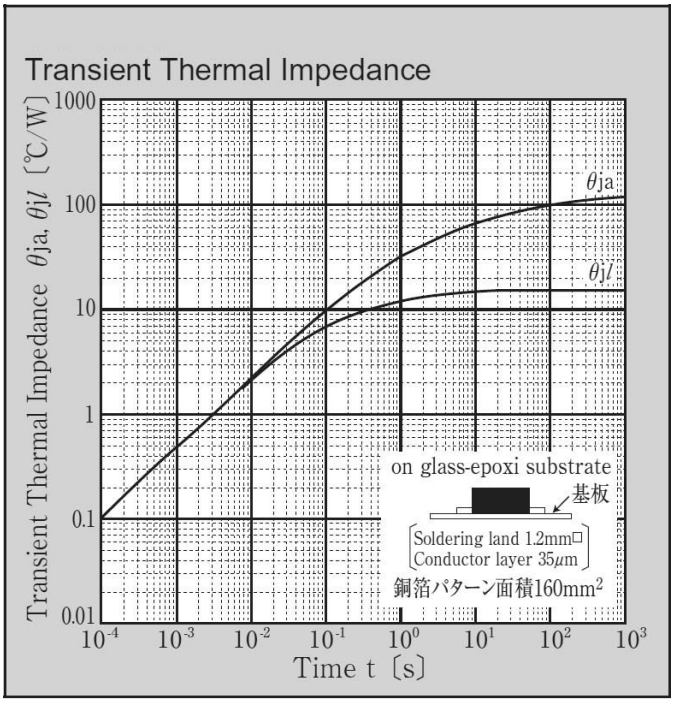


Peak Surge Forward Capability




Peak Surge Forward Current Derating
vs Junction Temperature
Peak Surge Forward Current Derating 〔%〕
100
80
60
40
20
0
0
25
50
75
100
125
150
Junction Temperature Tj〔℃〕


Transient Thermal Impedance
Transient Thermal Impedance θja, θjl 〔℃/W〕
1000
100
10
1
0.1
0.01
θja
θjl
on glass-epoxi substrate
基板
Soldering land 1.2mm□
Conductor layer 35μm
銅箔パターン面積32mm²
10⁻⁴
10⁻³
10⁻²
10⁻¹
10⁰
10¹
10²
10³
Time t〔s〕


Transient Thermal Impedance
Transient Thermal Impedance θja, θjl 〔℃/W〕
1000
100
10
1
0.1
0.01
θja
θjl
on glass-epoxi substrate
基板
Soldering land 1.2mm□
Conductor layer 35μm
銅箔パターン面積160mm²
10⁻⁴
10⁻³
10⁻²
10⁻¹
10⁰
10¹
10²
10³
Time t〔s〕

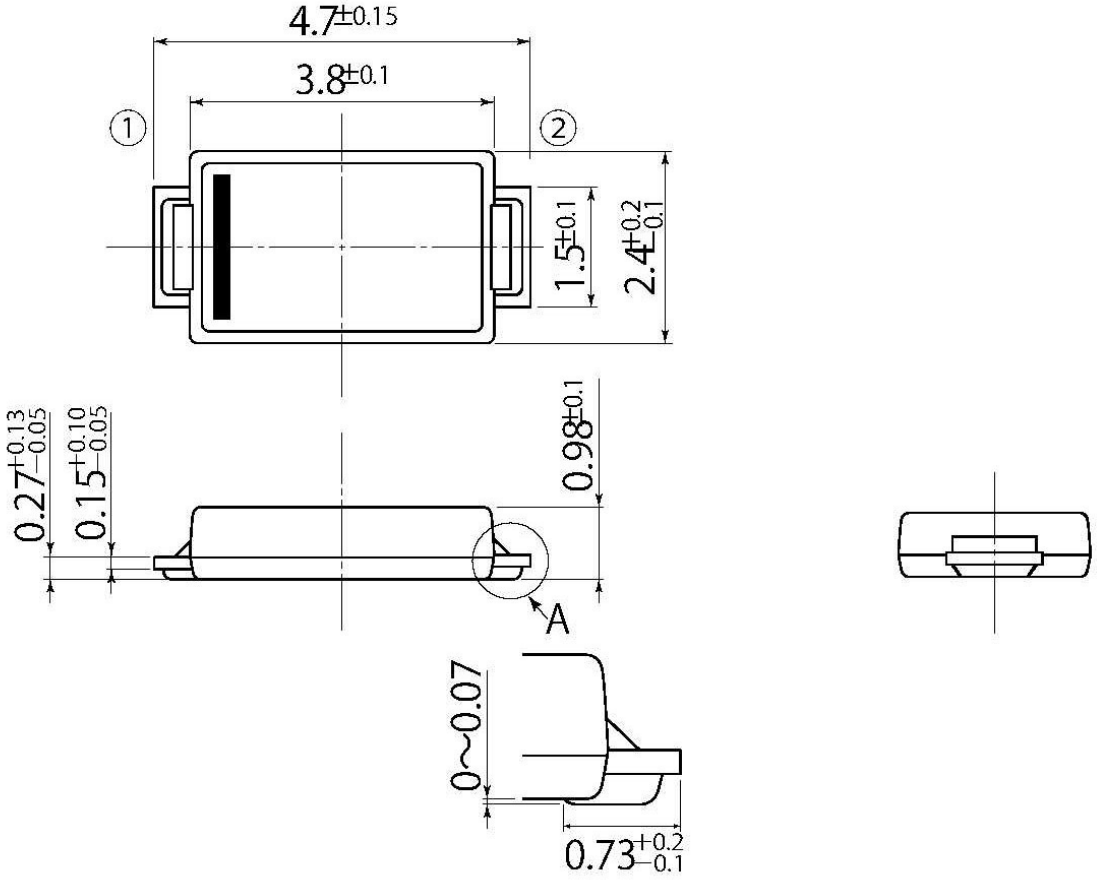
Outline Dimensions

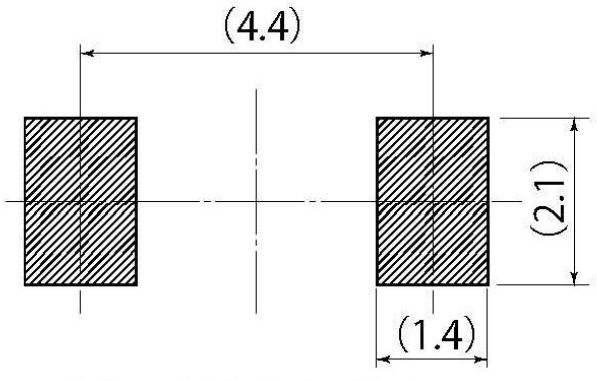
unit:mm

scale: 10/1

B5

JEDEC Code	–
JEITA Code	SC-110B
House Name	CE





Referential Soldering Pad

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

Notes

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