

D3CE60VE
General Rectifying Diodes
600V, 3.5A

Feature

- Ultra-small SMD
- Ultra-thin PKG=1.0mm
- Based on AEC-Q101
- 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=93°C	3.5	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, Tl=103°C	3	A
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C ※	1.2	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	60	A
Surge forward current	I _{FSM1}	tp=1ms, sine wave, Non-repetitive, peak value, Tj=25°C	120	A

※ : See the original Specifications

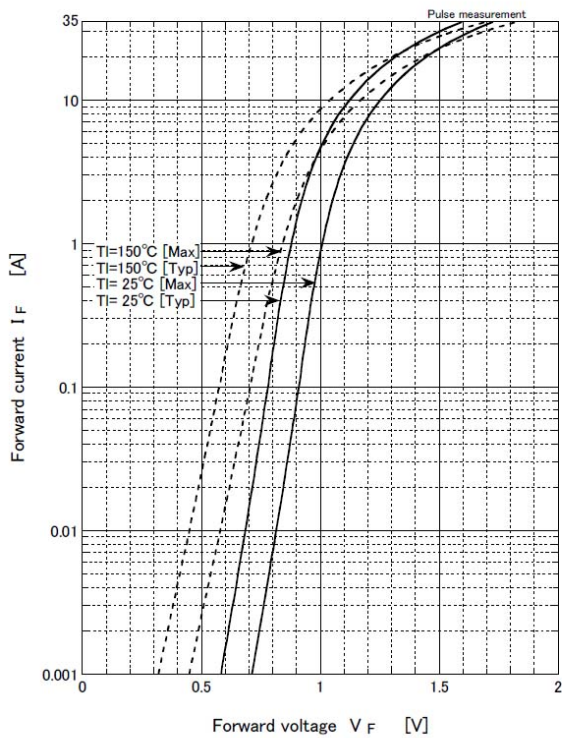
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=3.5A, Pulse measurement			1.1	V
Reverse current	I_R	VR=600V, Pulse measurement			10	μA
Electro static discharge Capability	V_{ESD}	C=330pF, R=330Ω, Polarity±, Aerial discharge		25		kV
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

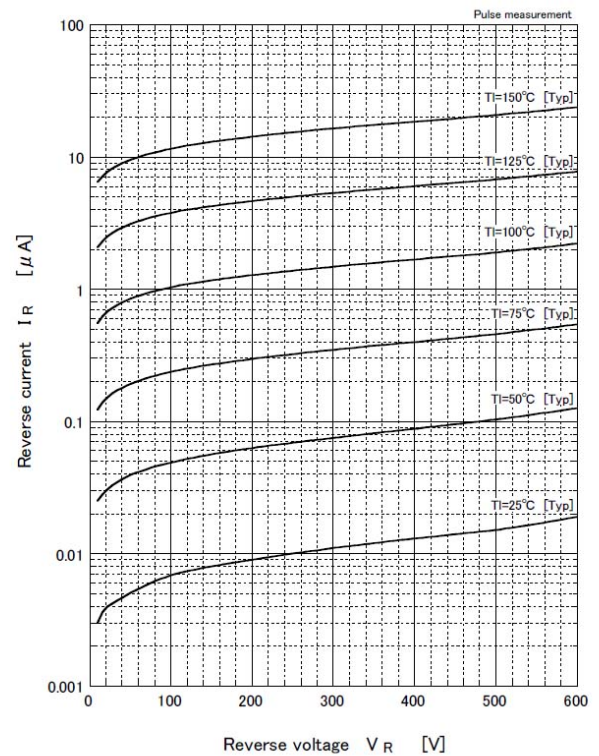
※ : See the original Specifications

CHARACTERISTIC DIAGRAMS

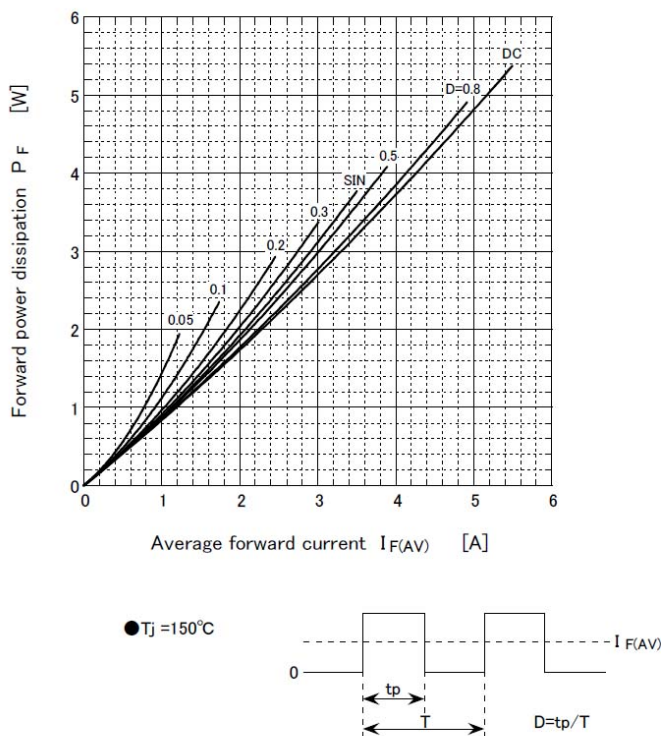
Forward voltage



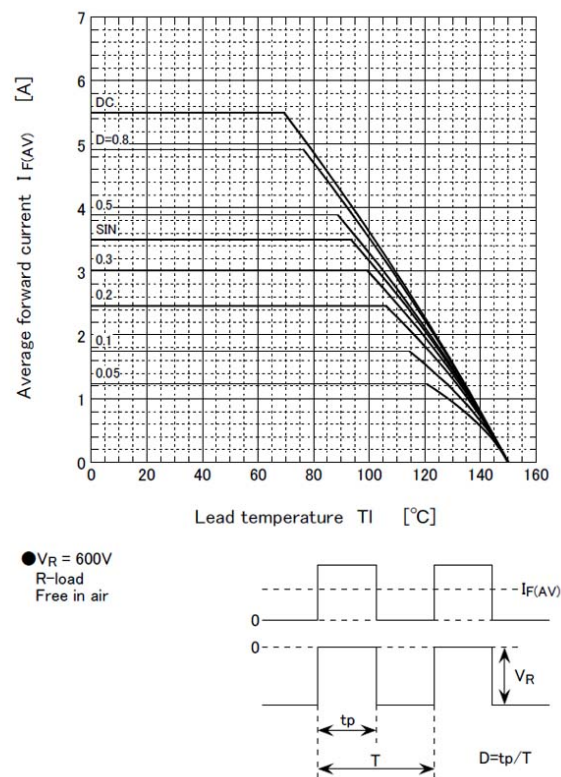
Reverse current



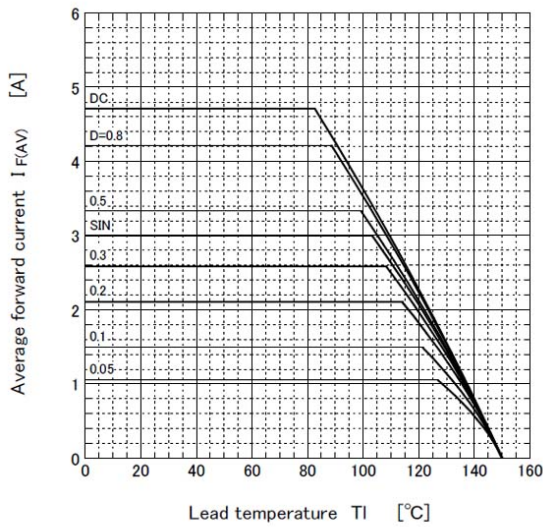
Forward power dissipation



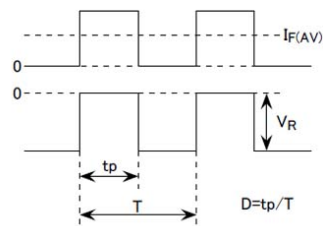
Derating curve



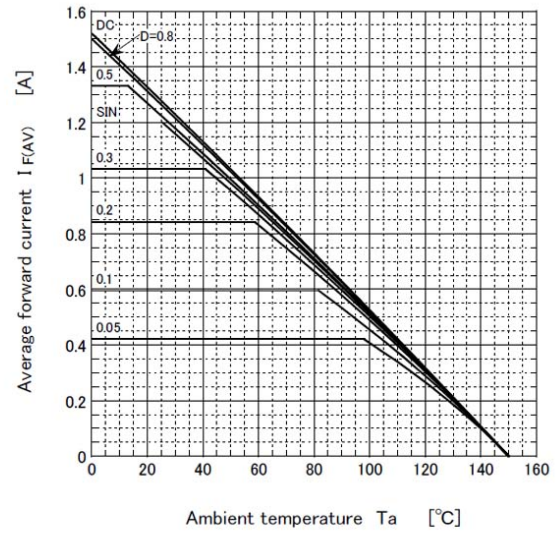
Derating curve



● $V_R = 600V$
R-load
Free in air



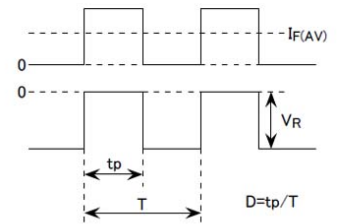
Derating curve



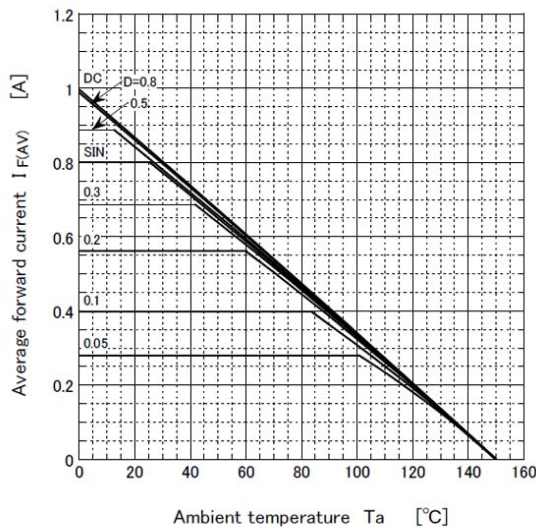
● $V_R = 600V$
R-load
Free in air

● Substrate detail

Type	Glass-epoxy
Size	2 inch ²
Thickness	1mm
Conductor thickness	35 μ m
Pattern area	160mm ²



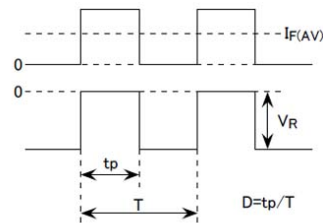
Derating curve



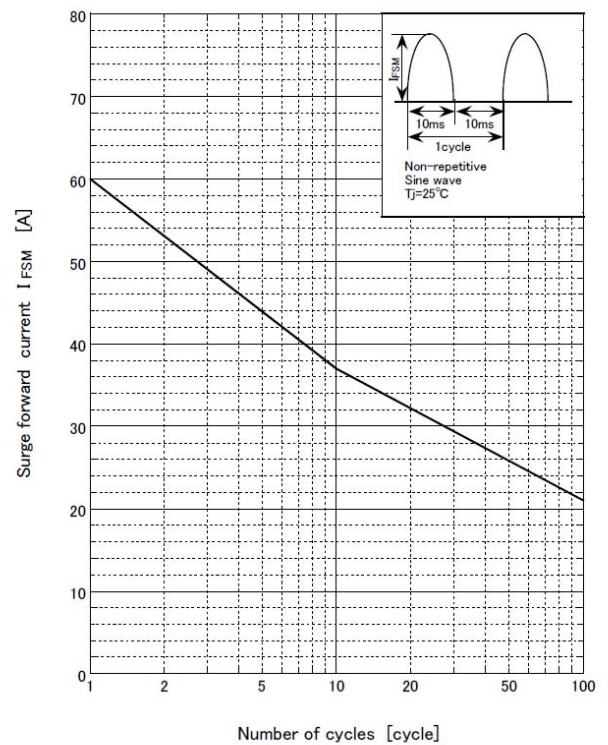
● $V_R = 600V$
R-load
Free in air

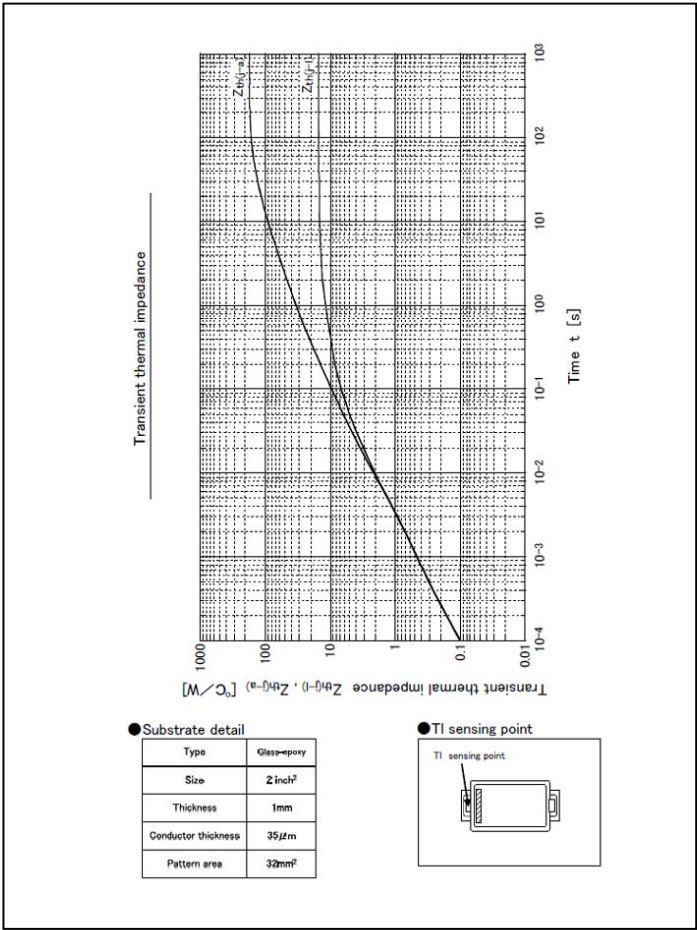
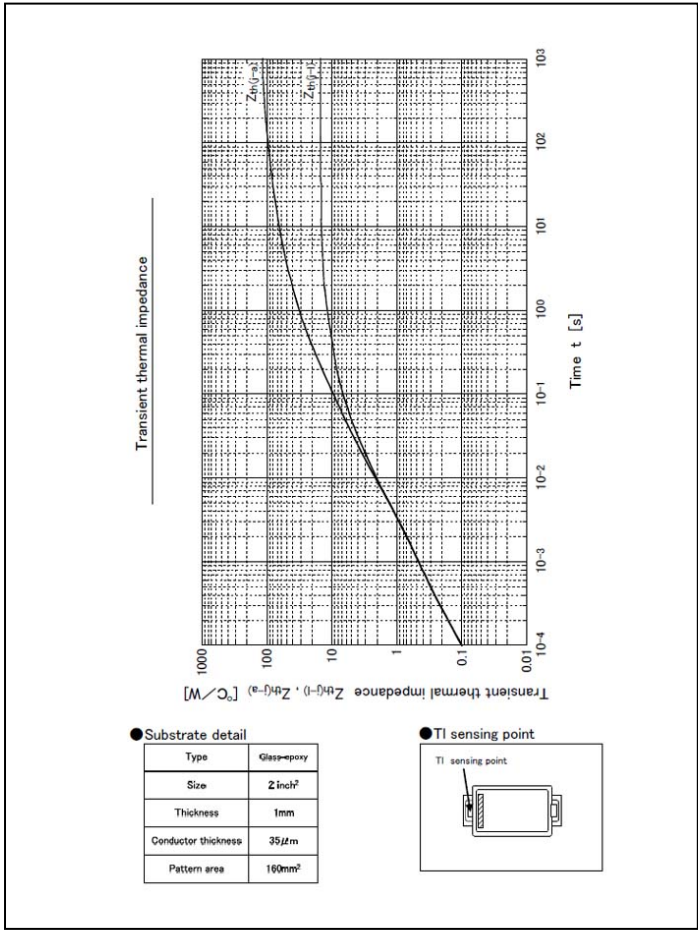
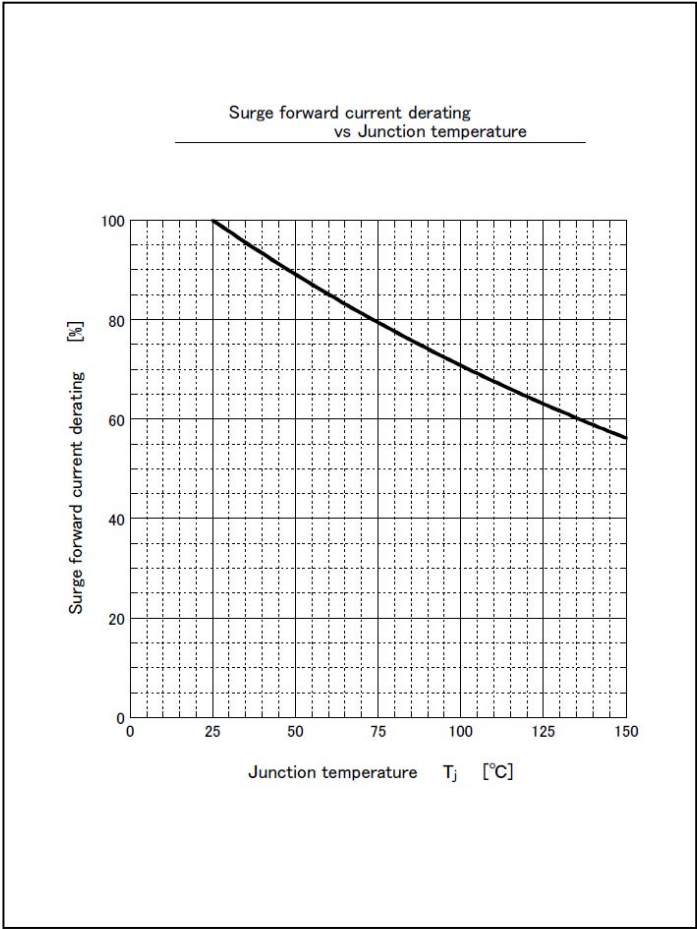
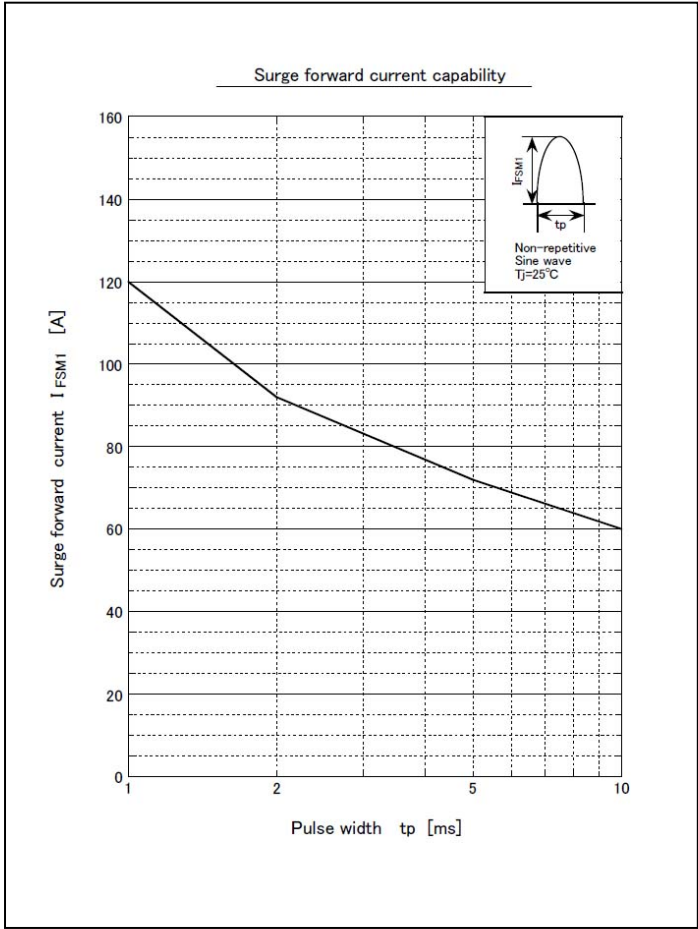
● Substrate detail

Type	Glass-epoxy
Size	2 inch ²
Thickness	1mm
Conductor thickness	35 μ m
Pattern area	32mm ²



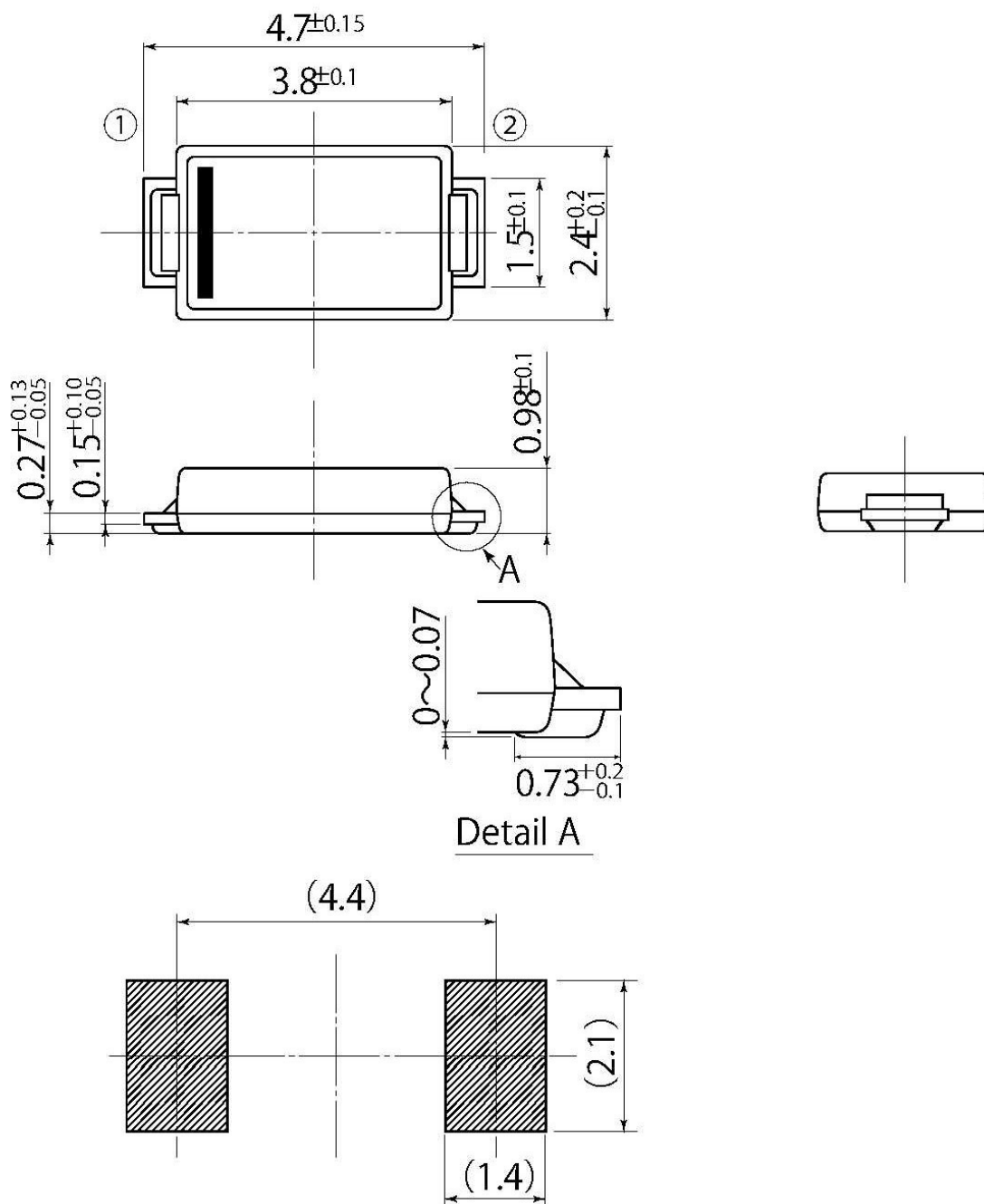
Surge forward current capability





B5

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



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

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