ShinDengen

# ST06-36CE

**TVS**

**12.4A, 600W**

## Feature

- Peak pulse power:600W
- Small SMD
- 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℃)

| Item | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Storage temperature | Tstg | | -55 to 175 | ℃ |
| Operating junction temperature | Tj | | -55 to 175 | ℃ |
| Maximum surge reverse current | $I_{RSM}$ | 10/1000μs, Non-repetitive, Exponential wave ※ | 12.4 | A |
| Maximum surge reverse power | $P_{RSM}$ | 10/1000μs, Non-repetitive | 600 | W |
| Continuous (direct) reverse voltage | $V_{R(DC)}$ | | 27 | V |

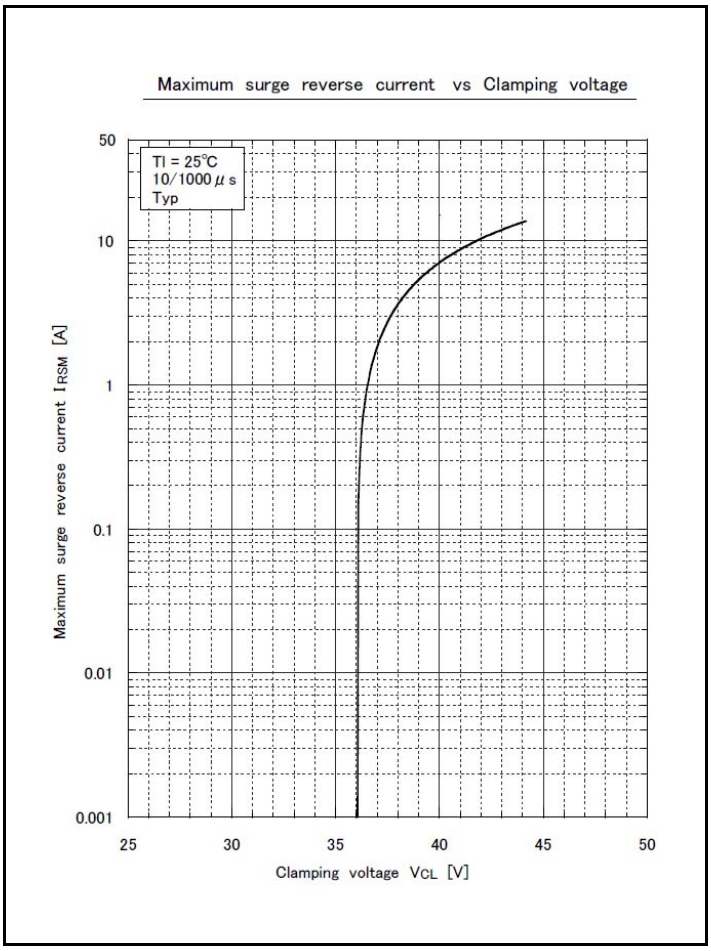
※ ：See the original Specifications

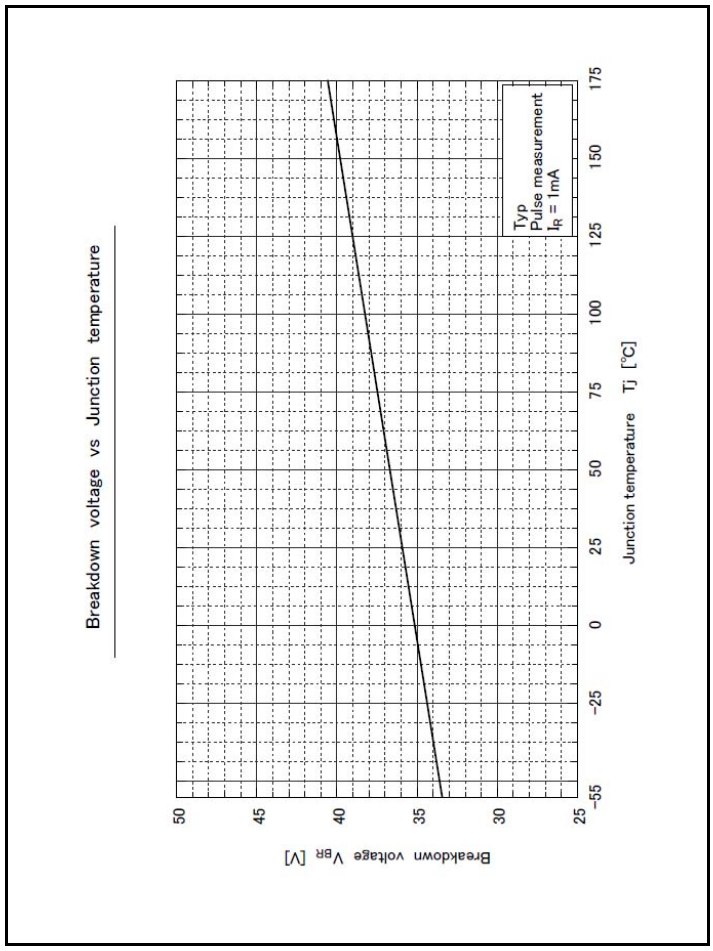
## Electrical Characteristics (unless otherwise specified : Tl=25℃)

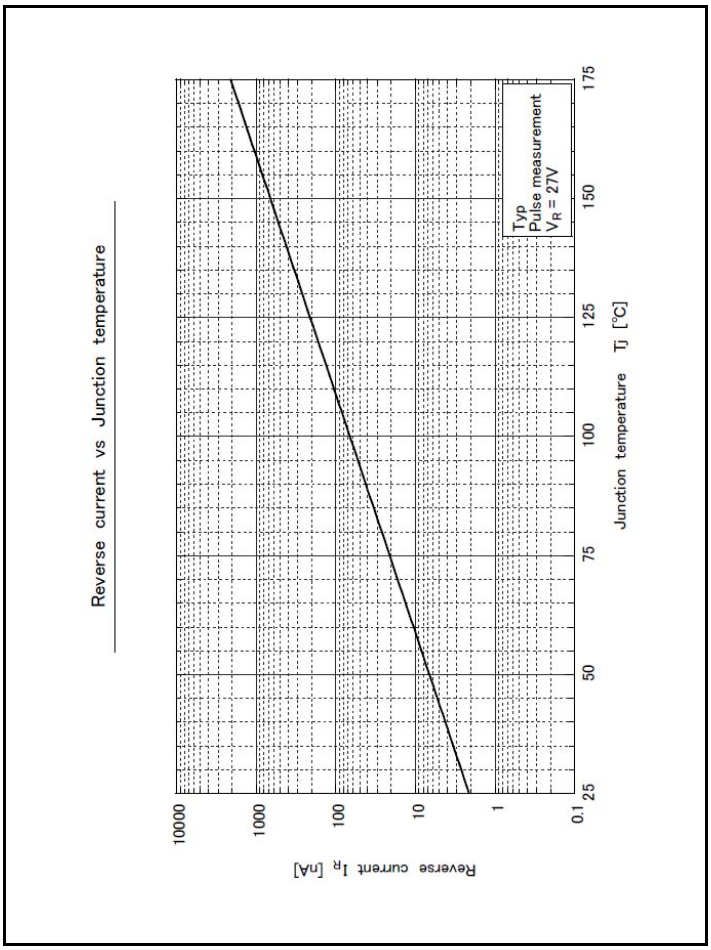
| Item | Symbol | Conditions | Ratings | | | Unit |
|---|---|---|---|---|---|---|
| | | | MIN | TYP | MAX | |
| Breakdown voltage | $V_{BR}$ | IR=1mA, Pulse measurement | 34 | | 38 | V |
| Reverse current | $I_R$ | VR=27V, Pulse measurement | | | 5 | μA |
| Electrostatic discharge capability | $V_{ESD}$ | C=330pF, R=330Ω, Polarity±, Aerial discharge ※ | | 30 | | kV |
| Thermal resistance | Rth(j-l) | Junction to lead, On glass-epoxy substrate | | | 15 | ℃/W |
| Thermal resistance | Rth(j-a) | Junction to ambient, On glass-epoxy substrate ※ | | | 115 | ℃/W |
| Thermal resistance | Rth(j-a) | Junction to ambient, On glass-epoxy substrate ※ | | | 172 | ℃/W |

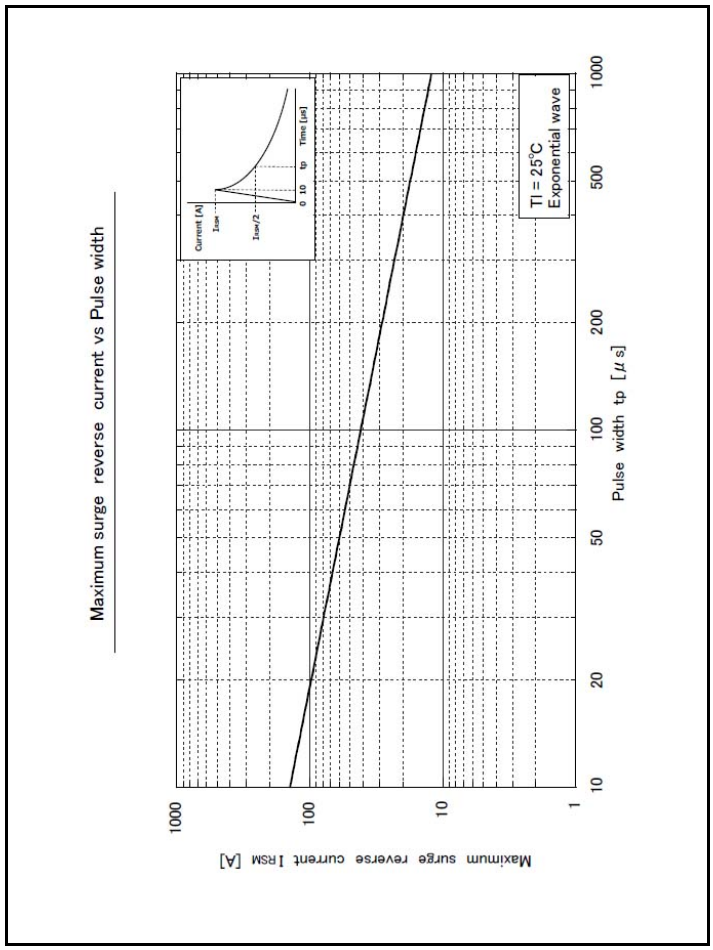
※ :See the original Specifications

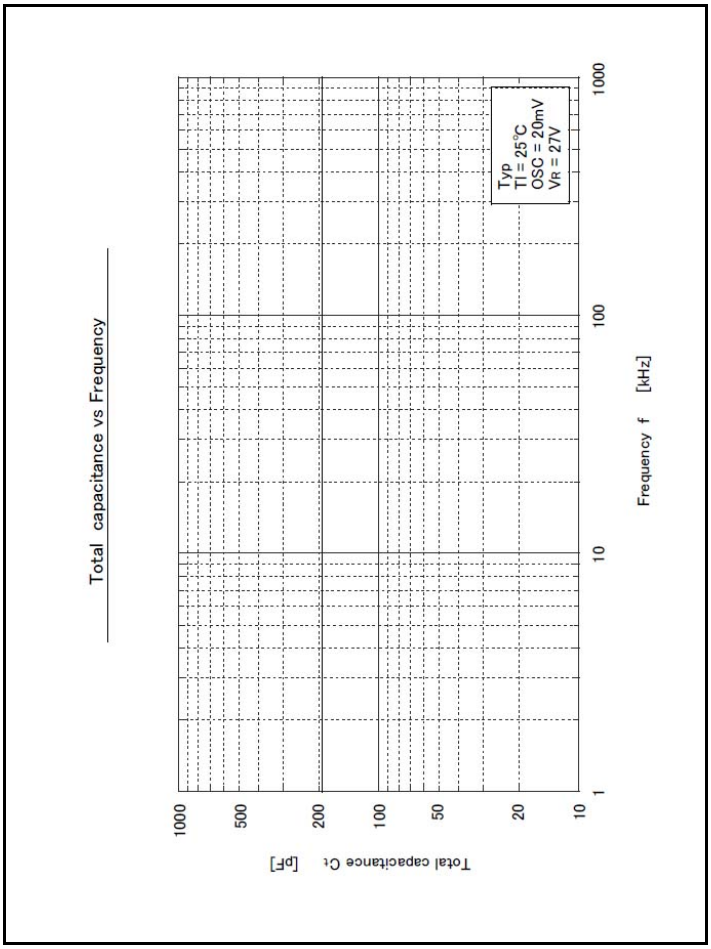
## CHARACTERISTIC DIAGRAMS

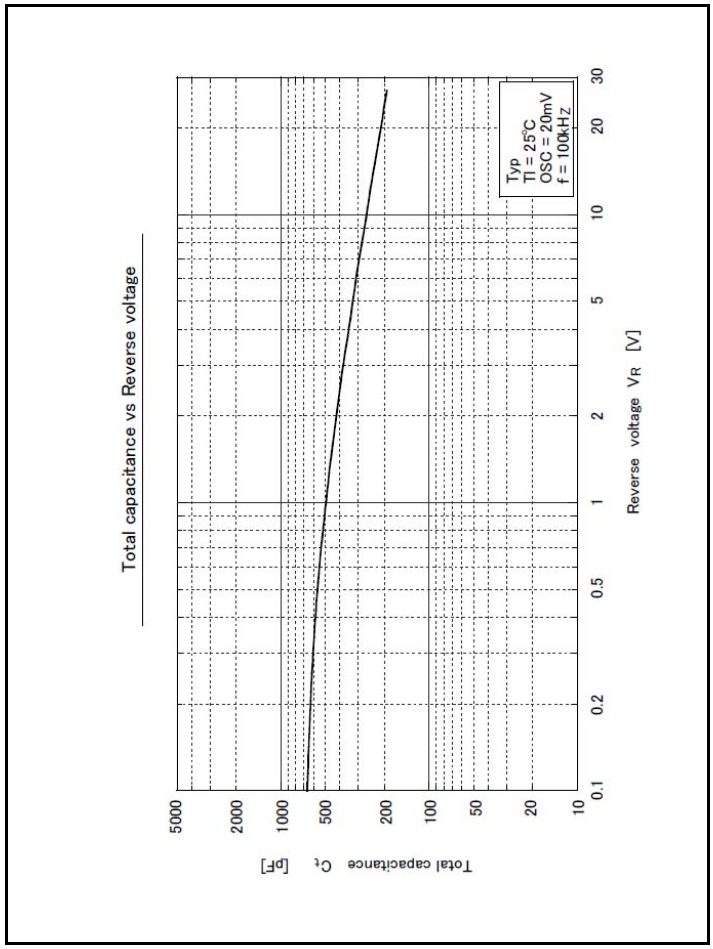


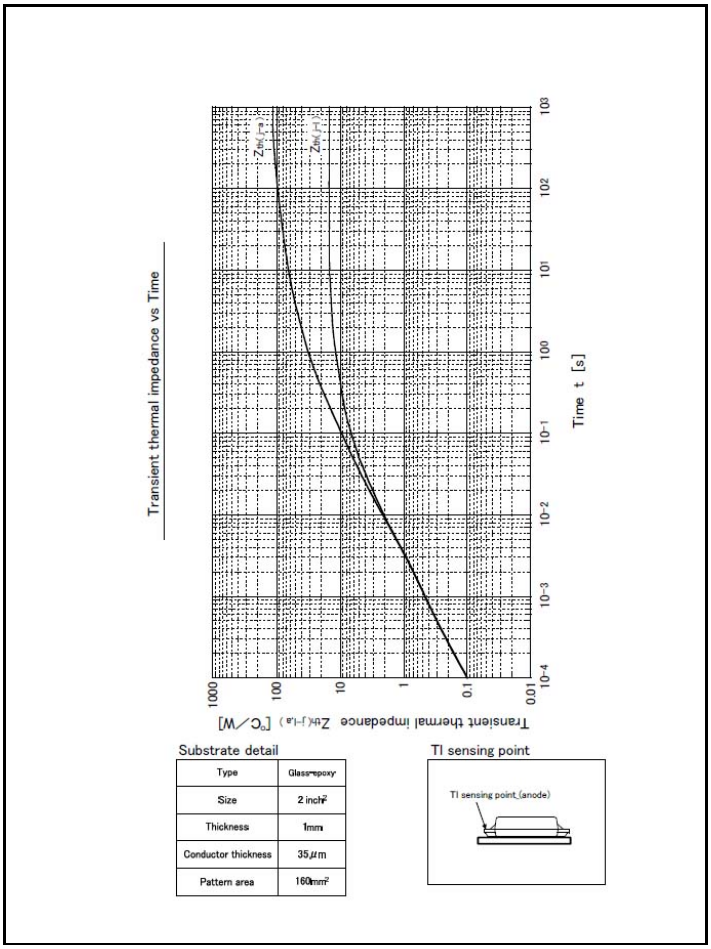



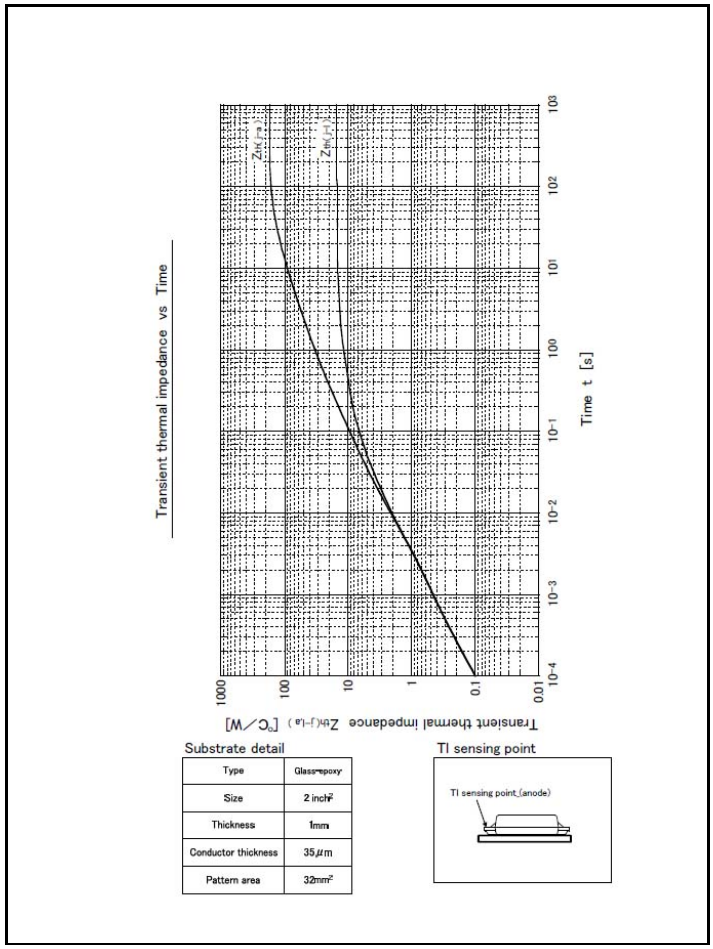




Total capacitance vs Frequency
Typ
Tl = 25°C
OSC = 20mV
VR = 27V
Total capacitance Ct [pF]
Frequency f [kHz]


Total capacitance vs Reverse voltage
Typ
Tl = 25°C
OSC = 20mV
f = 100kHz
Total capacitance Ct [pF]
Reverse voltage VR [V]


Transient thermal impedance vs Time
Transient thermal impedance
Time t [s]
Substrate detail
Type Glass-epoxy
Size 2 inch²
Thickness 1mm
Conductor thickness 35μm
Pattern area 160mm²
Tl sensing point
Tl sensing point (anode)


Transient thermal impedance vs Time
Transient thermal impedance
Time t [s]
Substrate detail
Type Glass-epoxy
Size 2 inch²
Thickness 1mm
Conductor thickness 35μm
Pattern area 32mm²
Tl sensing point
Tl sensing point (anode)

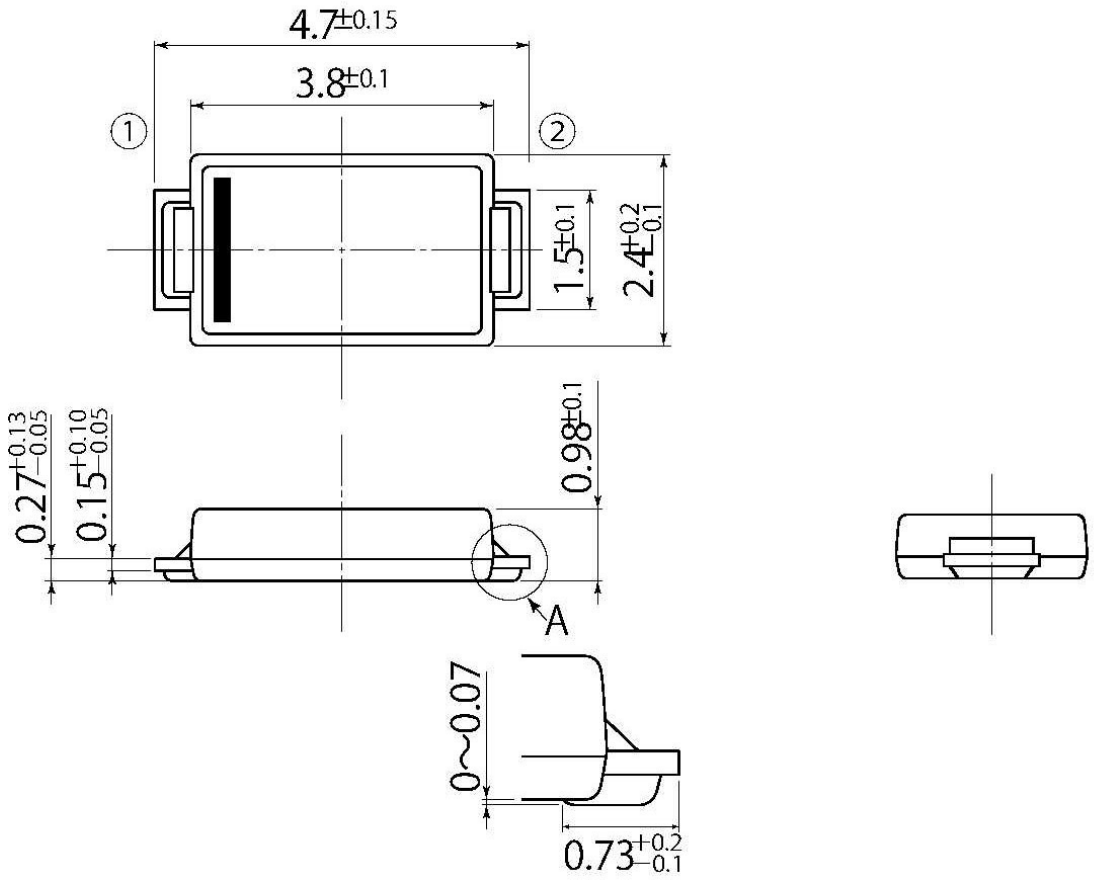
## Outline Dimensions

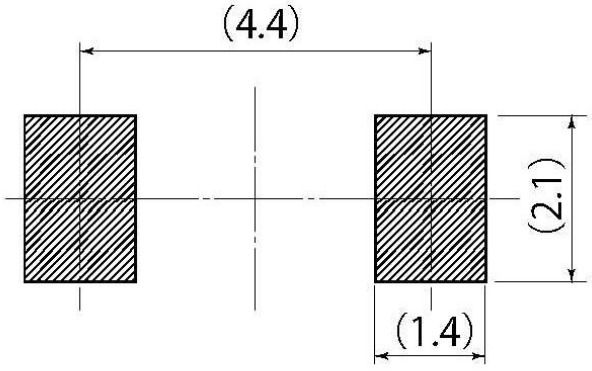
unit:mm

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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