

# ST04-36F1

TVS

7.5A, 400W

## Feature

- Peak pulse power:400W
- Small SMD
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

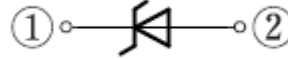
## OUTLINE

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 temperature                 | T <sub>stg</sub>   |                             | -55 to 175 | °C   |
| Operating junction temperature      | T <sub>j</sub>     |                             | -55 to 175 | °C   |
| Maximum surge reverse current       | I <sub>RSM</sub>   | 10/1000μs, Non-repetitive * | 7.5        | A    |
| Maximum surge reverse power         | P <sub>RSM</sub>   | 10/1000μs, Non-repetitive * | 400        | W    |
| Continuous (direct) reverse voltage | V <sub>R(DC)</sub> |                             | 27         | V    |

\* : See the original Specifications

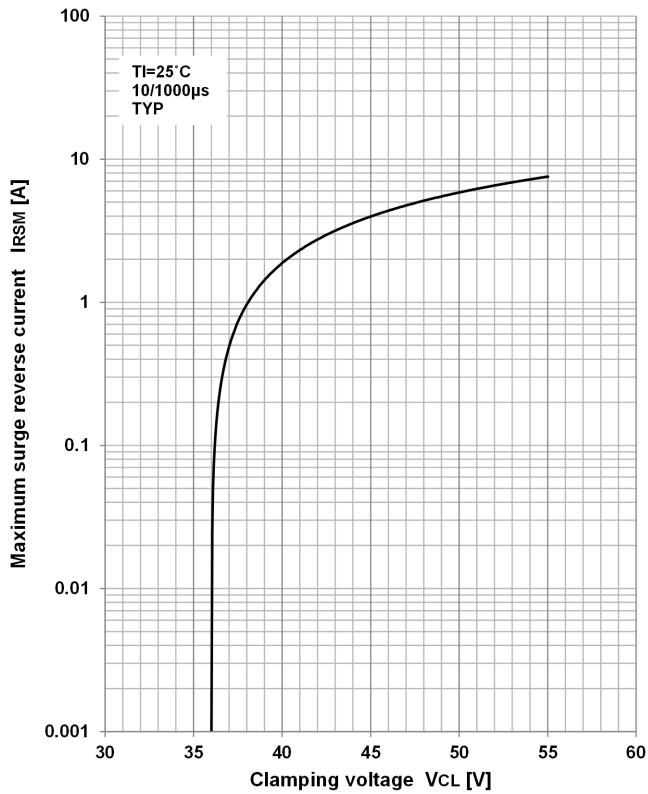
## Electrical Characteristics (unless otherwise specified : Tl=25°C)

| Item                               | Symbol               | Conditions                                      | Ratings |     |     | Unit |
|------------------------------------|----------------------|---|---------|-----|-----|------|
|                                    |                      |   | MIN     | TYP | MAX |      |
| Breakdown voltage                  | V <sub>BR</sub>      | I <sub>R</sub> =1mA, Pulse measurement          | 34      |     | 38  | V    |
| Reverse current                    | I <sub>R</sub>       | V <sub>R</sub> =27V, Pulse measurement          |         |     | 5   | μA   |
| Electrostatic discharge capability | V <sub>ESD</sub>     | C=330pF, R=330Ω, Polarity±, Aerial discharge *  |         | 30  |     | kV   |
| Thermal resistance                 | R <sub>th(j-l)</sub> | Junction to lead, On glass-epoxy substrate *    |         |     | 23  | °C/W |
| Thermal resistance                 | R <sub>th(j-a)</sub> | Junction to ambient, On glass-epoxy substrate * |         |     | 157 | °C/W |

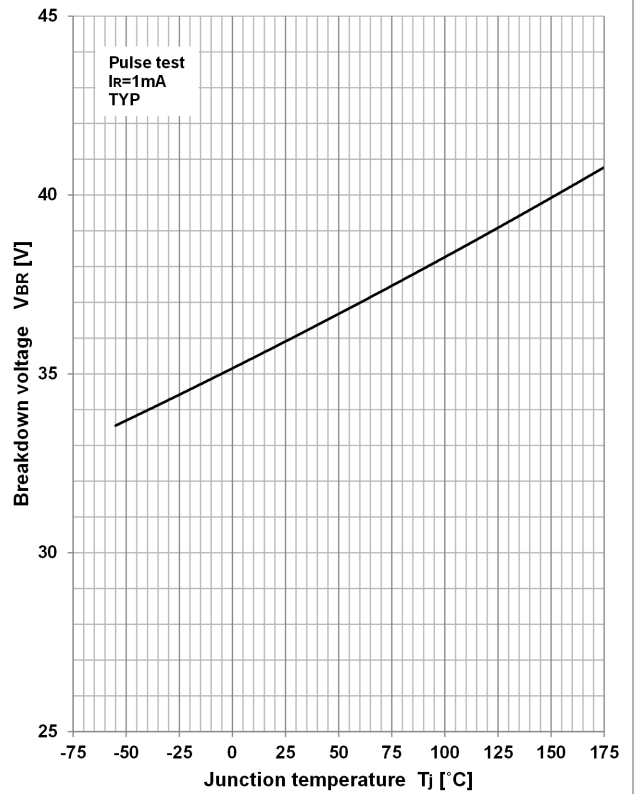
\* : See the original Specifications

# CHARACTERISTIC DIAGRAMS

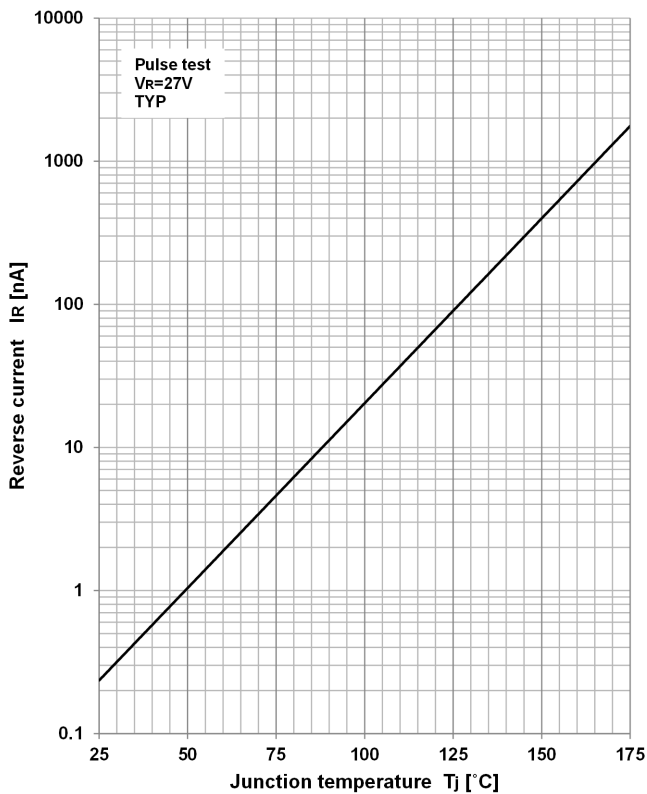
**Maximum surge reverse current vs Clamping voltage**



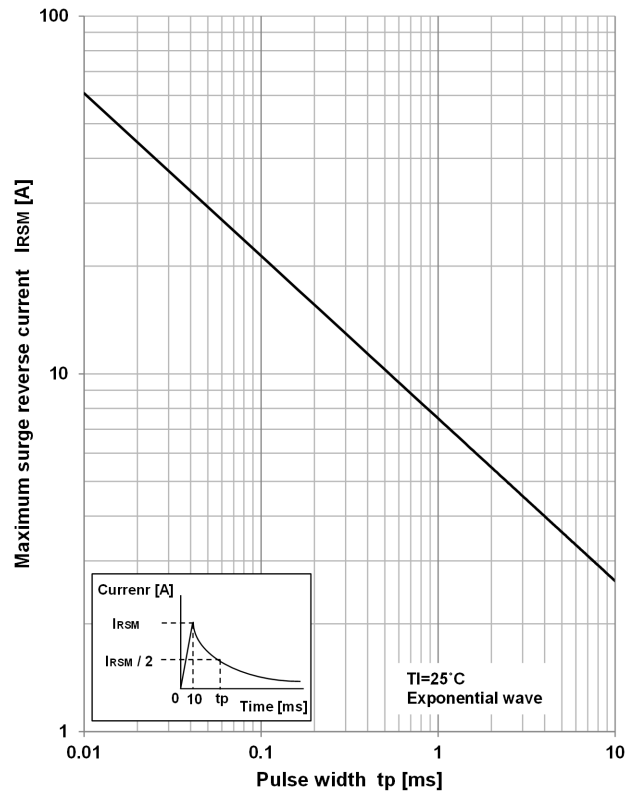
**Breakdown voltage vs Junction temperature**

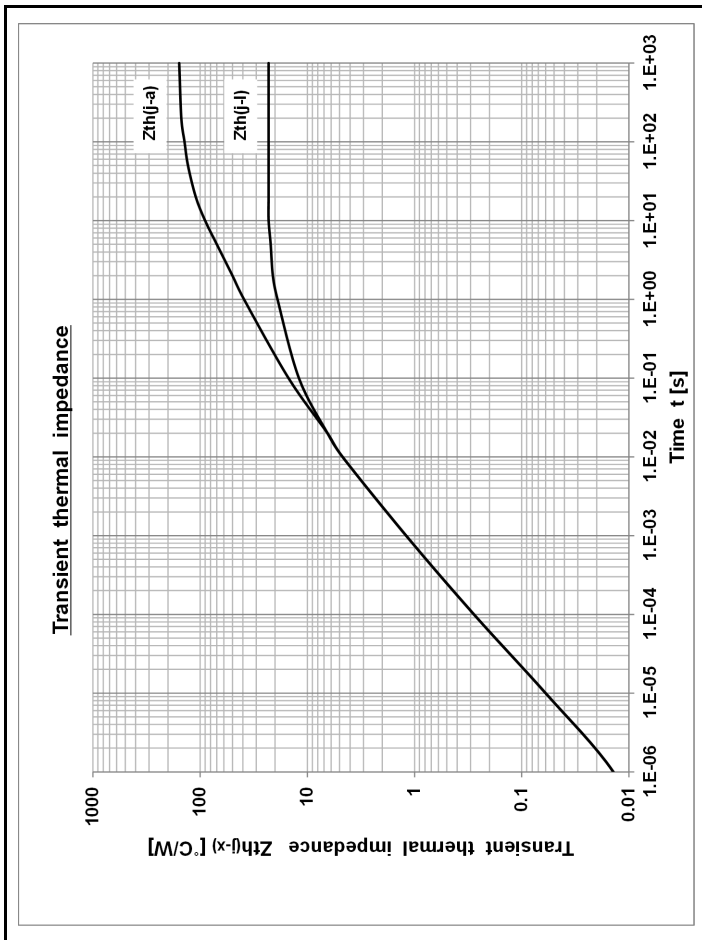
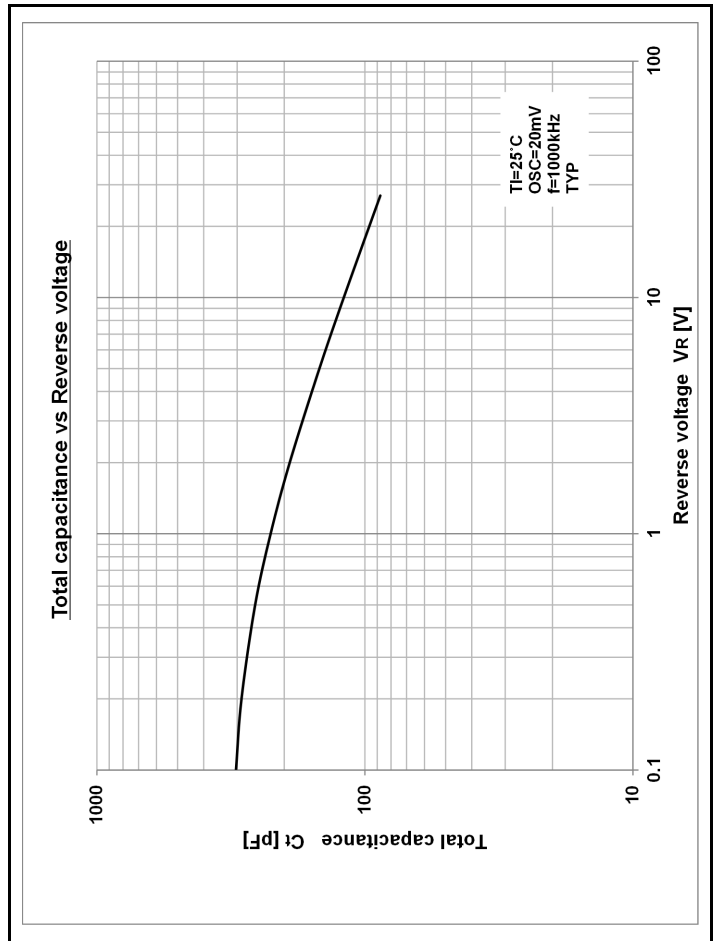
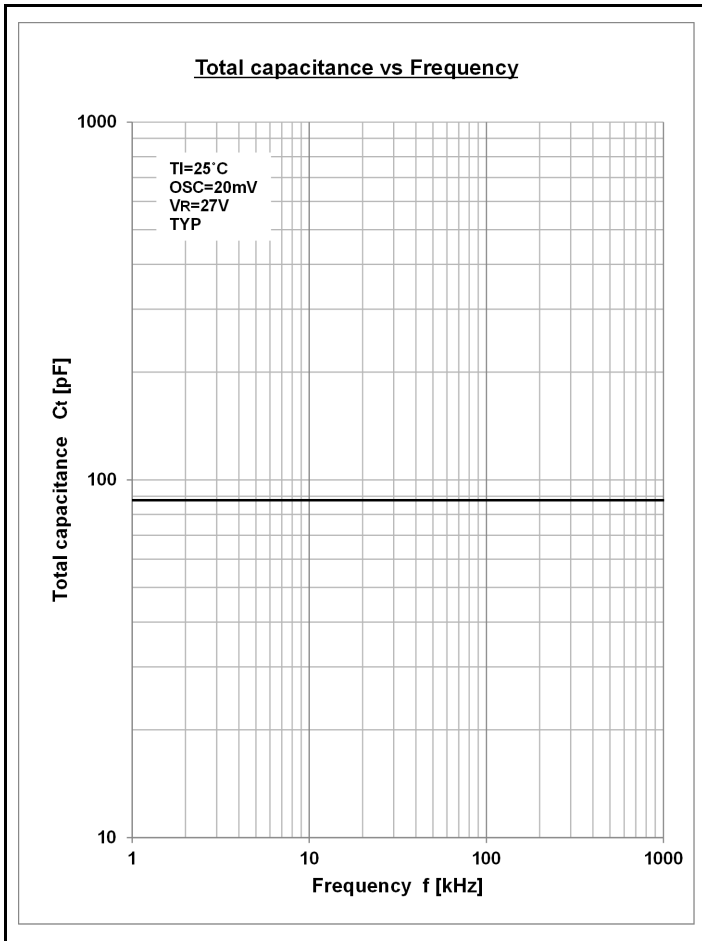


**Reverse current vs Junction temperature**



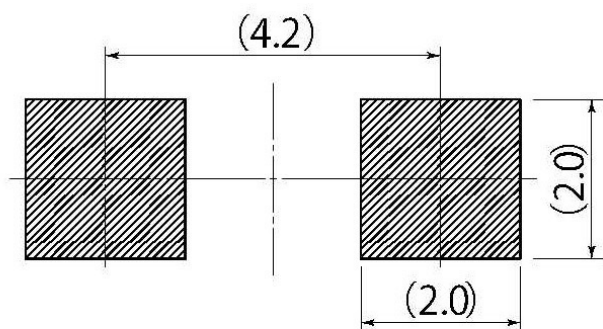
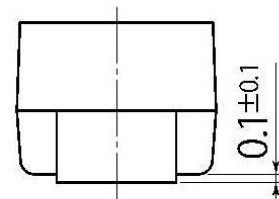
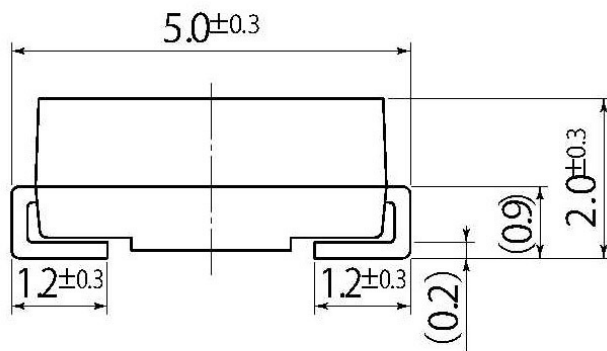
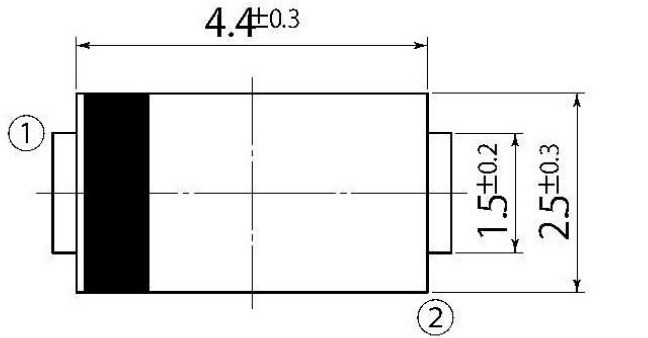
**Maximum surge reverse current vs Pulse width**





B3

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



Referential Soldering Pad

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

## Notes

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