

ST04-18F1

TVS
15A, 400W

Feature

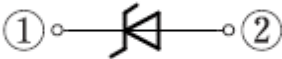
- Peak pulse power:400W
- Small SMD
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

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 | Tstg | | -55 to 175 | °C |
| Operating junction temperature | Tj | | -55 to 175 | °C |
| Maximum surge reverse current | I _{RSM} | 10/1000μs, Non-repetitive ※ | 15 | A |
| Maximum surge reverse power | P _{RSM} | 10/1000μs, Non-repetitive ※ | 400 | W |
| Continuous (direct) reverse voltage | V _{R(DC)} | | 15.3 | V |

※ : See the original Specifications

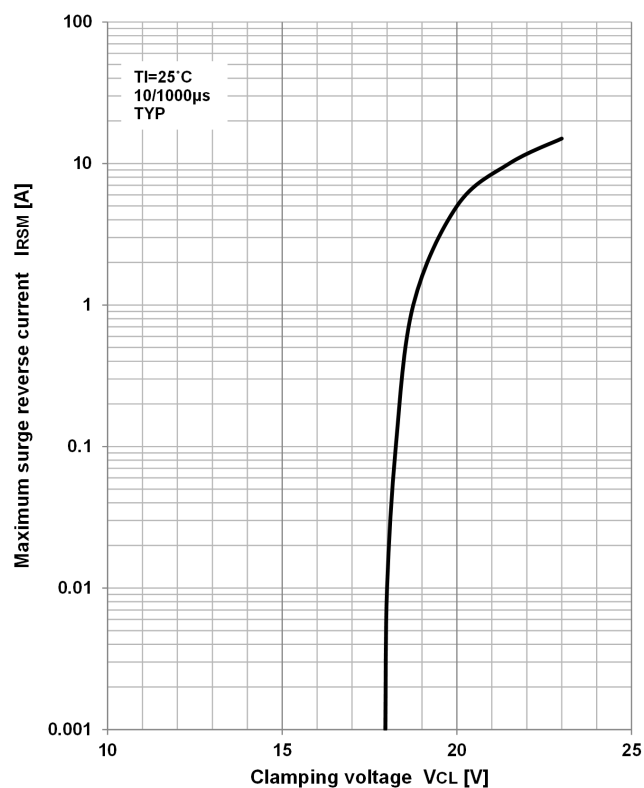
Electrical Characteristics (unless otherwise specified : Tl=25°C)

| Item | Symbol | Conditions | Ratings | | | Unit |
|------------------------------------|-----------|---|---------|-----|------|------|
| | | | MIN | TYP | MAX | |
| Breakdown voltage | V_{BR} | IR=1mA, Pulse measurement | 16.8 | | 19.1 | V |
| Reverse current | I_R | VR=15.3V, 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 ※ | | | 23 | °C/W |
| Thermal resistance | Rth(j-a) | Junction to ambient, On glass-epoxy substrate ※ | | | 157 | °C/W |

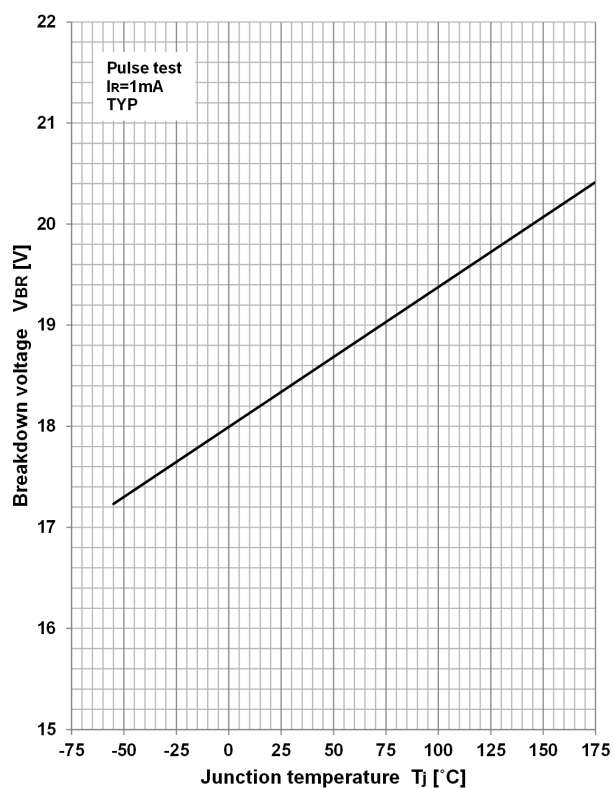
※ : See the original Specifications

CHARACTERISTIC DIAGRAMS

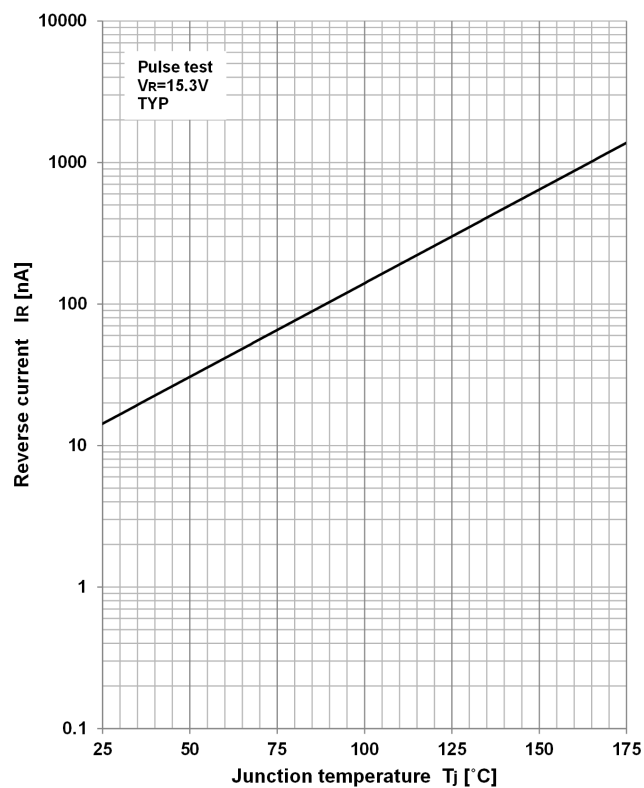
**Maximum surge reverse current
vs Clamping voltage**



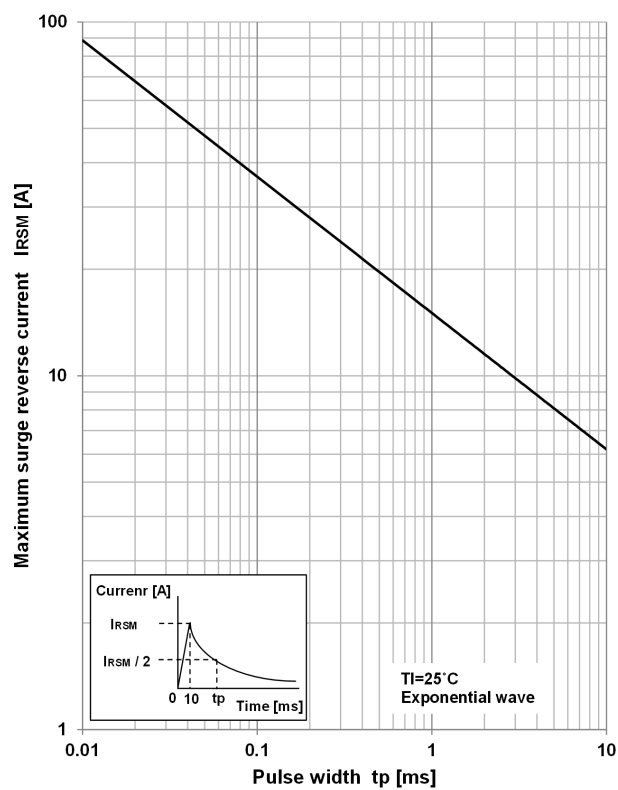
Breakdown voltage vs Junction temperature

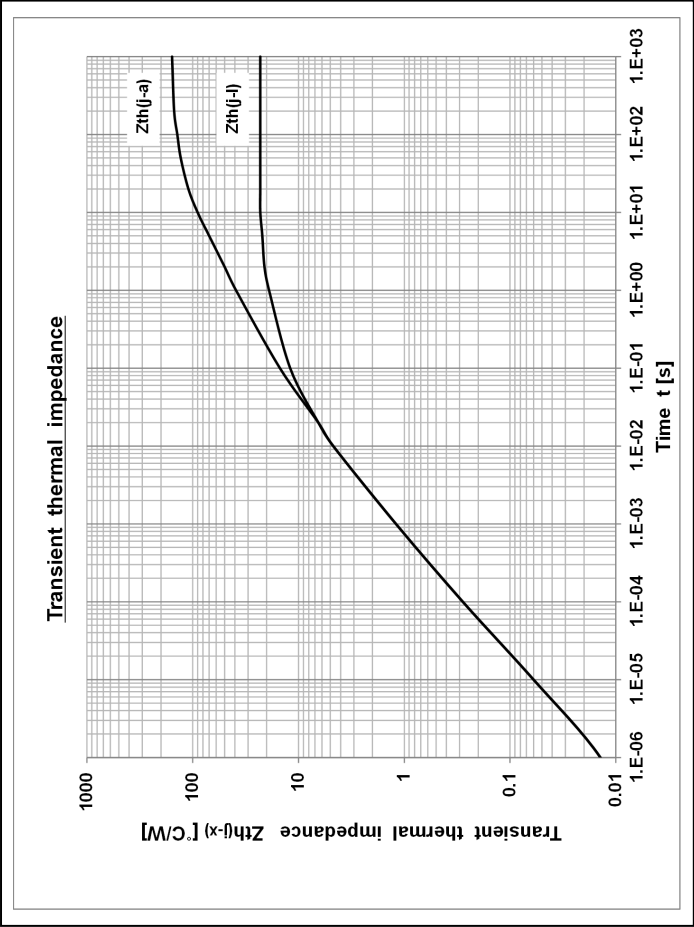
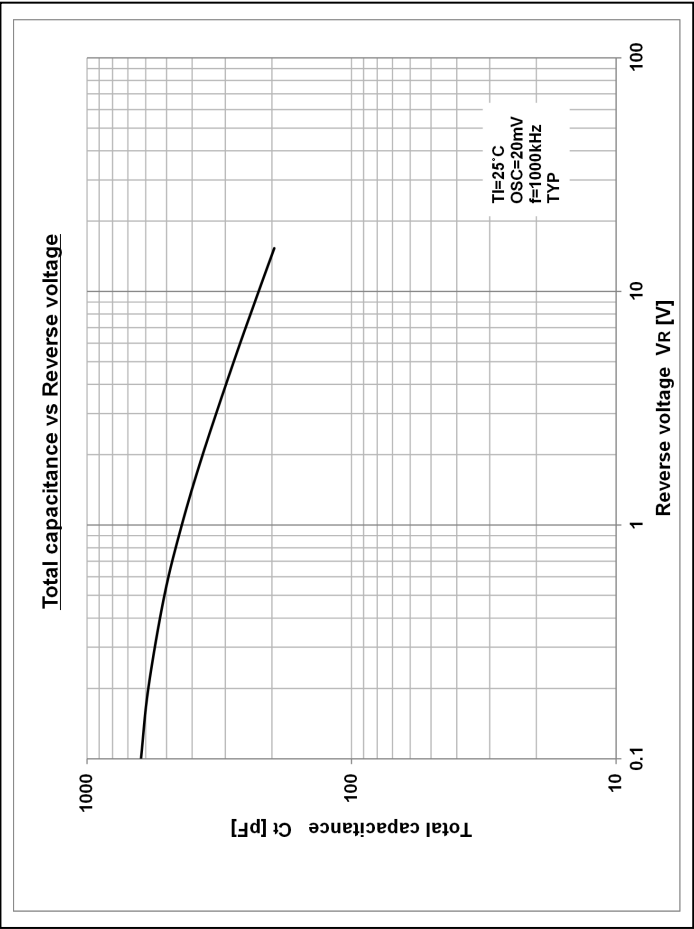
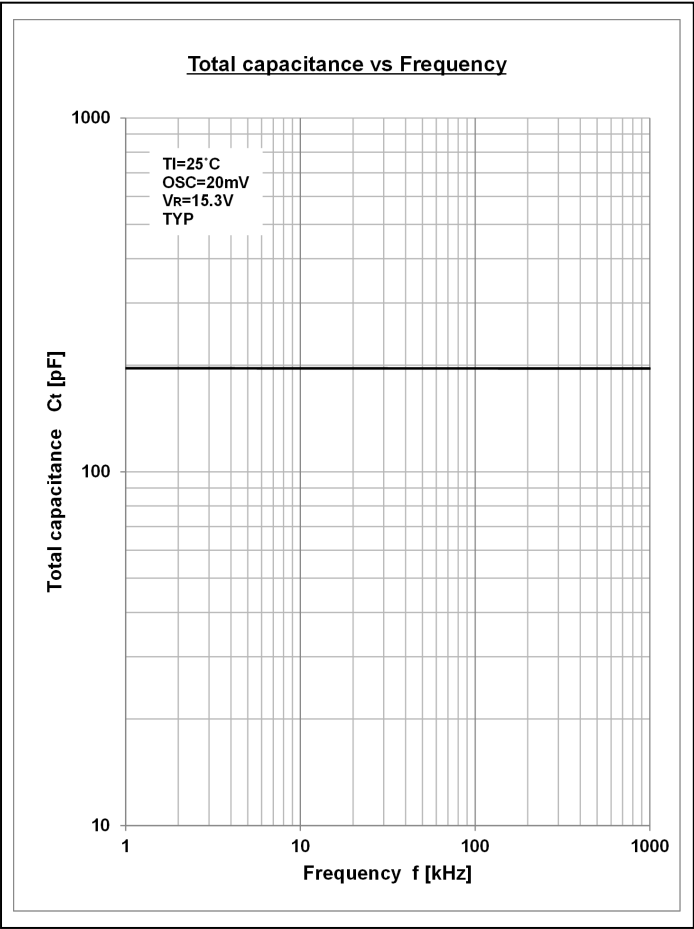


Reverse current vs Junction temperature



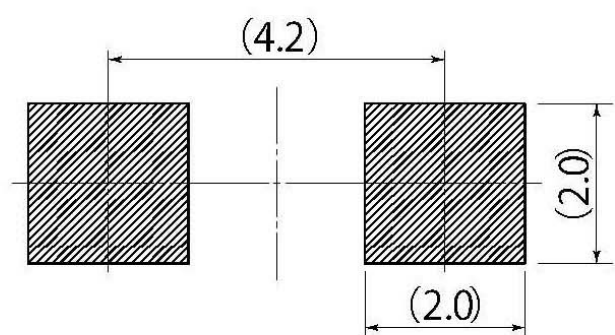
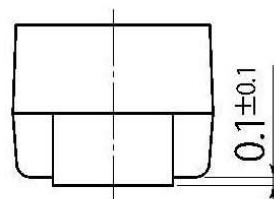
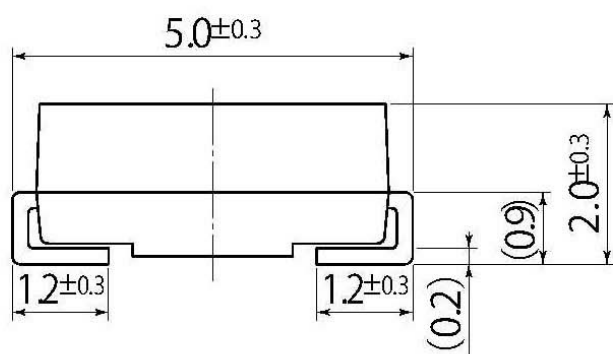
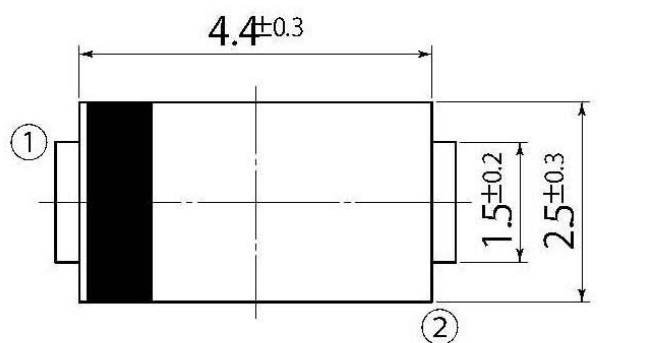
Maximum surge reverse current vs Pulse width





B3

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



Referential Soldering Pad

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

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