

## ST70-27F

TVS

180A, 7000W

### Feature

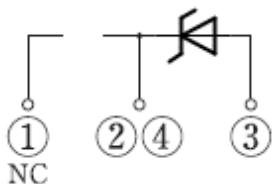
- Peak pulse power:7000W
- SMD
- Available for automotive use
- Pb free terminal
- RoHS:Yes

### OUTLINE

Package (House Name): STO-220  
Package (JEITA Code): SC-83 similar



### Equivalent circuit



### Absolute Maximum Ratings (unless otherwise specified : $T_c=25^\circ\text{C}$ )

| Item                                | Symbol      | Conditions                | Ratings    | Unit |
|-------------------------------------|-------------|---------------------------|------------|------|
| Storage temperature                 | $T_{stg}$   |                           | -40 to 150 | °C   |
| Operating junction temperature      | $T_j$       |                           | 150        | °C   |
| Maximum surge reverse current       | $I_{RSM}$   | 10/1000μs, Non-repetitive | 180        | A    |
| Maximum surge reverse power         | $P_{RSM}$   | 10/1000μs, Non-repetitive | 7000       | W    |
| Continuous (direct) reverse voltage | $V_{R(DC)}$ |                           | 23         | V    |
| Maximum forward power               | $P_F$       | $T_f=25^\circ\text{C}$    | 5          | W    |

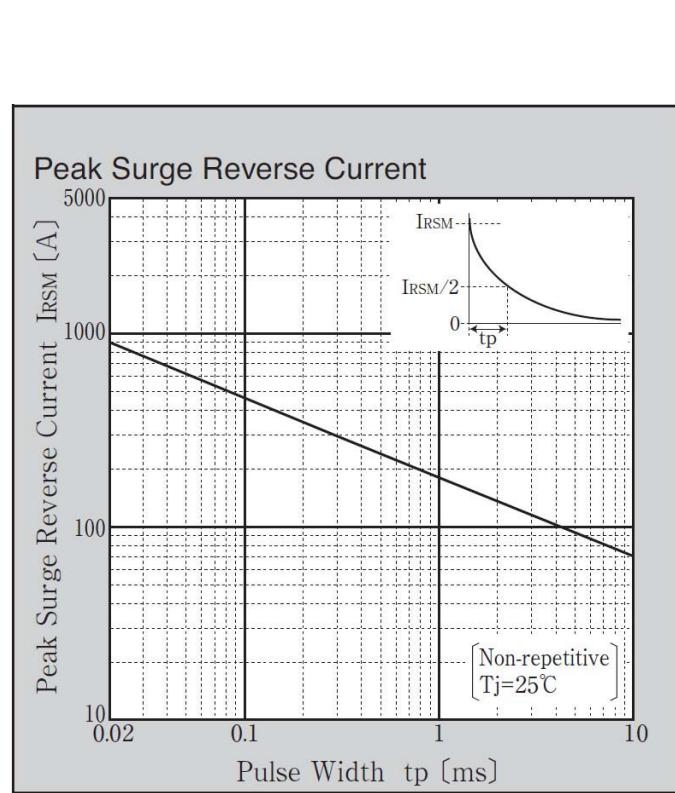
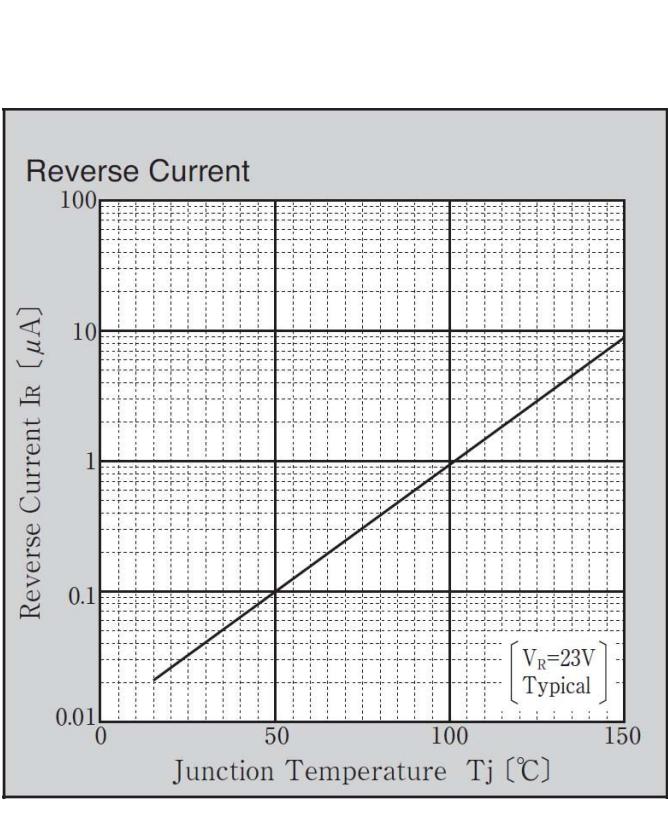
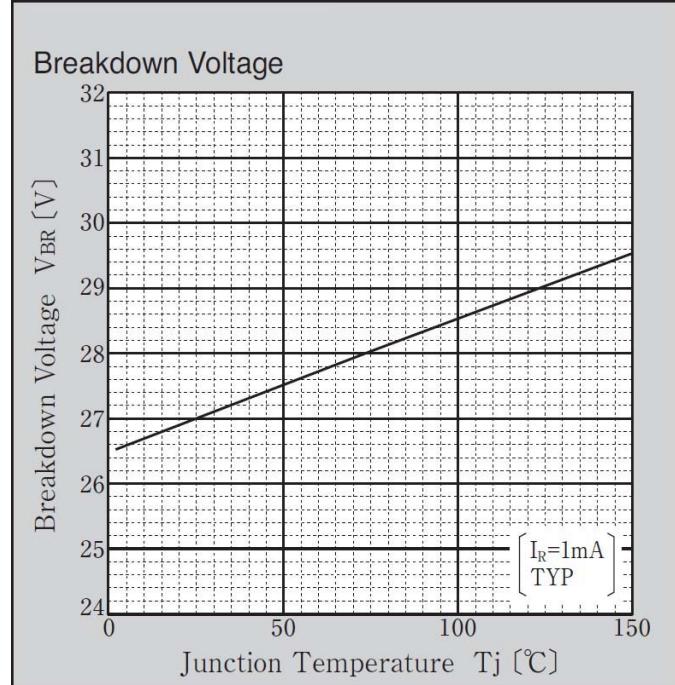
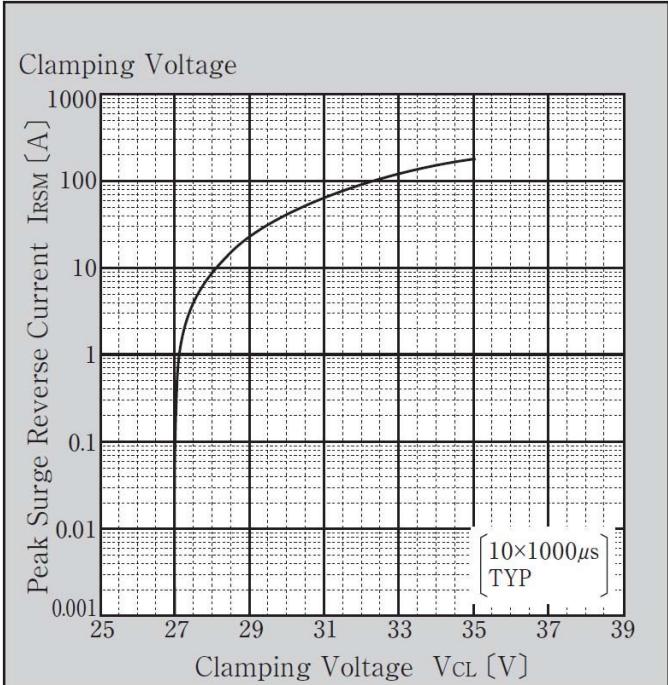
※ :See the original Specifications

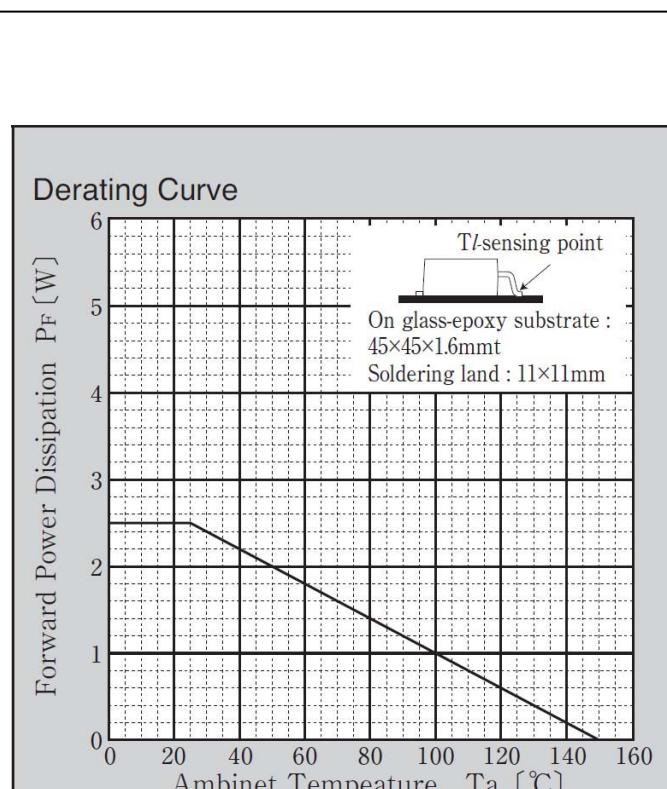
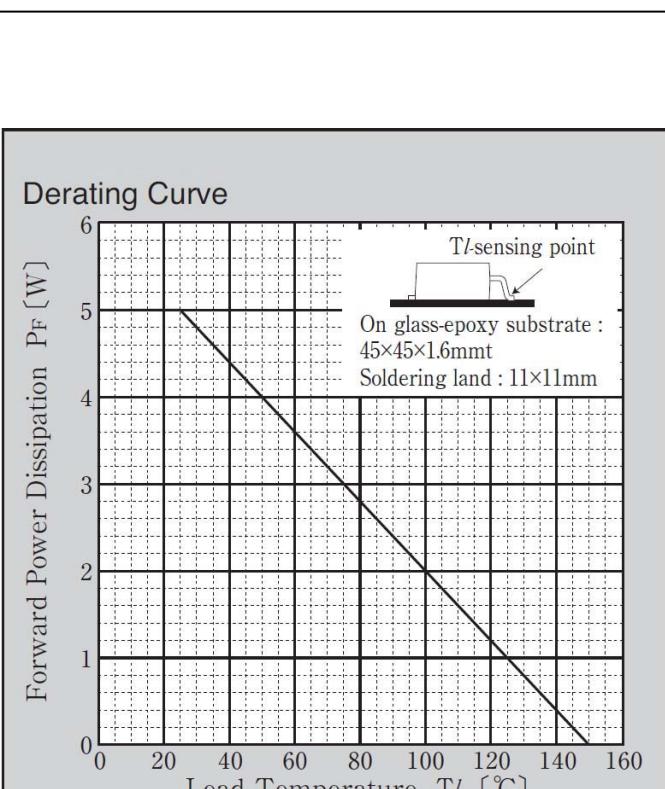
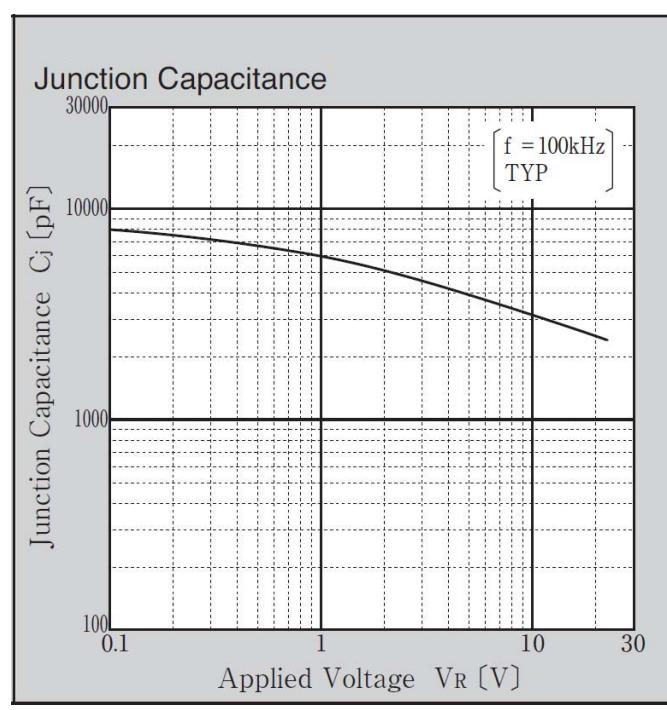
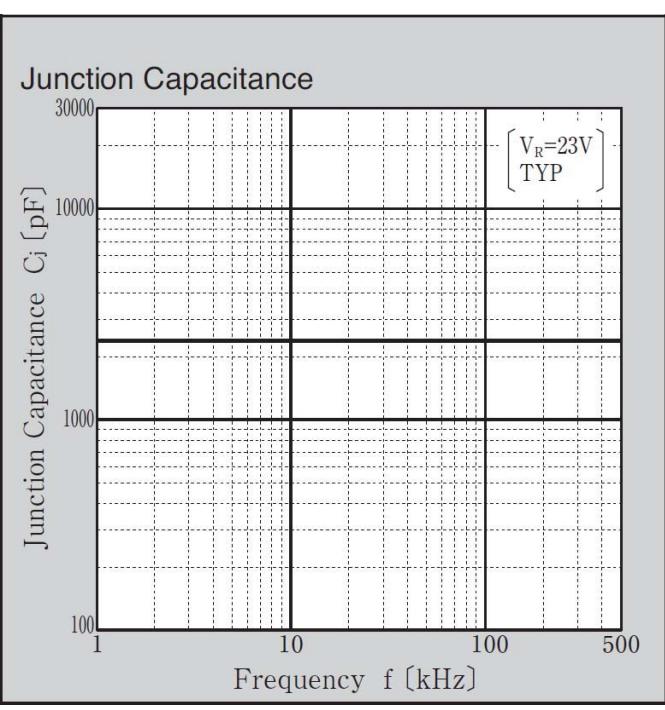
**Electrical Characteristics** (unless otherwise specified :  $T_c=25^\circ\text{C}$ )

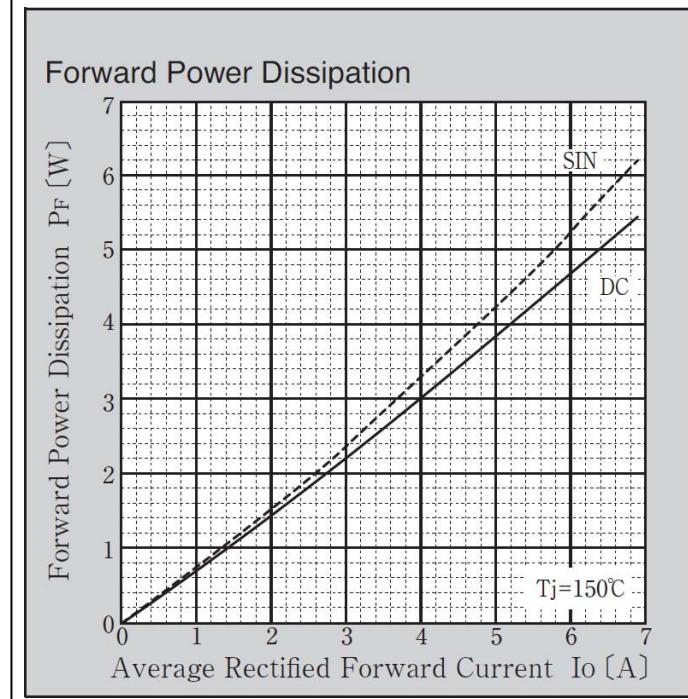
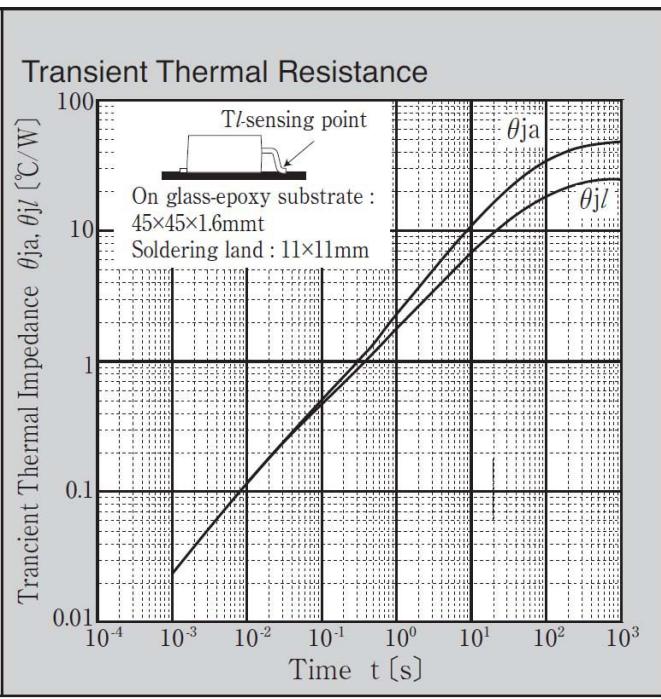
| Item                    | Symbol   | Conditions                                             | Ratings |     |      | Unit                 |
|-------------------------|----------|--------------------------------------------------------|---------|-----|------|----------------------|
|                         |          |                                                        | MIN     | TYP | MAX  |                      |
| Breakdown voltage       | $V_{BR}$ | $IR=1\text{mA}$ , Pulse measurement                    | 24.3    | 27  | 29.7 | V                    |
| Reverse current         | $I_R$    | $VR=23\text{V}$                                        |         |     | 5    | $\mu\text{A}$        |
| Forward voltage         | $V_F$    | $IF=30\text{A}$ , Pulse Measurement                    |         |     | 1.3  | V                    |
| Restriction voltage     | $V_{CL}$ | $10/1000\mu\text{s}$ , $I_{pp}=180\text{A}$ $\ddagger$ |         |     | 40   | V                    |
| Temperature coefficient | $r_z$    |                                                        |         |     | 0.09 | $\%/\text{^\circ C}$ |

$\ddagger$  : See the original Specifications

## CHARACTERISTIC DIAGRAMS







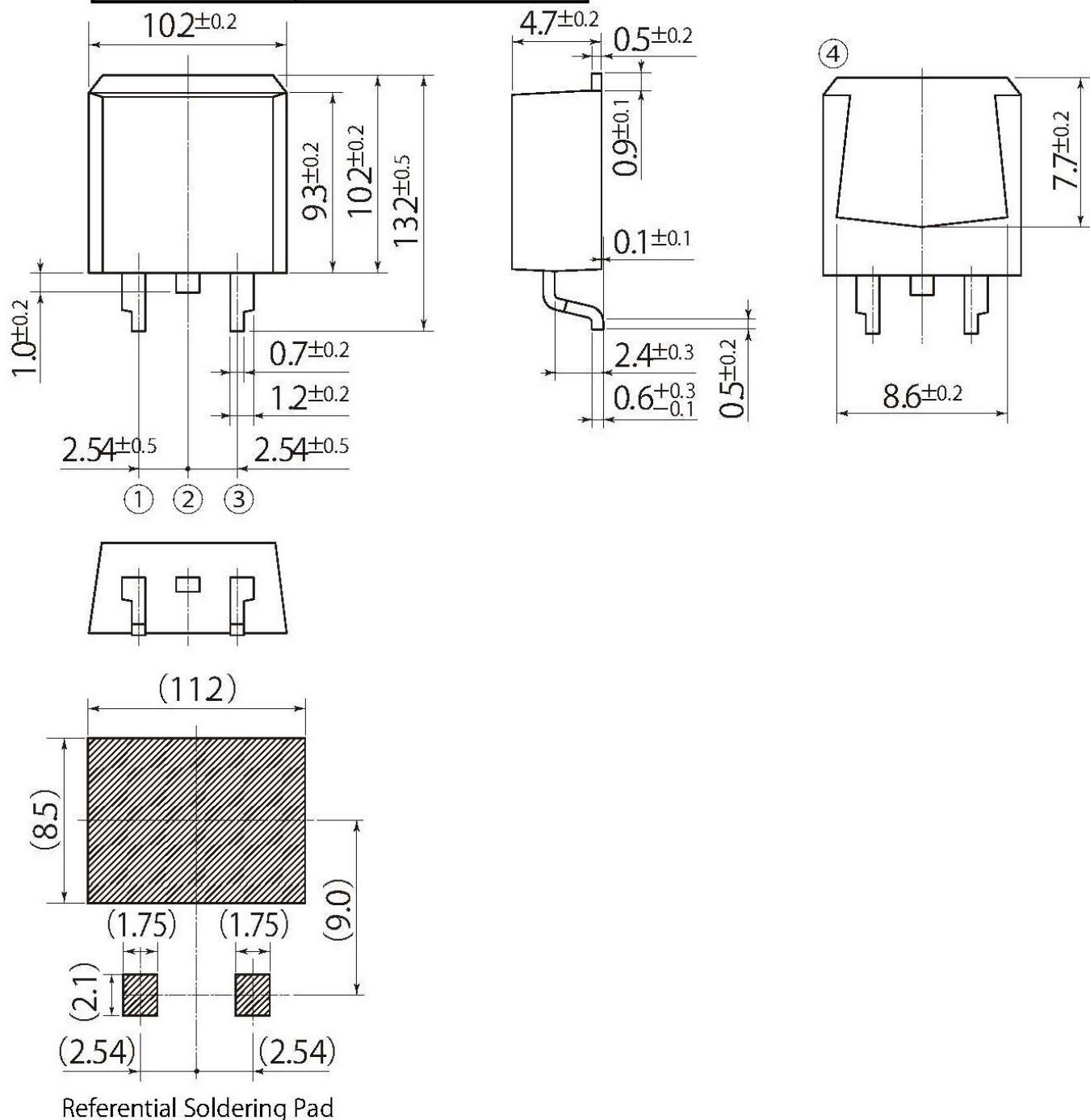
## Outline Dimensions

unit:mm

scale: 3/1

H1

|            |               |
|------------|---------------|
| JEDEC Code | —             |
| JEITA Code | SC-83 similar |
| House Name | STO-220       |



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

## Notes

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### 【Specific applications】

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