

# ST70-27F

TVS

180A, 7000W

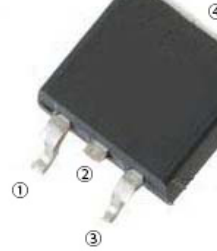
## Feature

- Optimized for Multiple Protection Purposes  
[ESD],[Lighting Surge],[Automotive Transient Surge]
- Peak pulse power:7000W
- High Speed
- SMD
- Available for automotive use
- Pb free terminals
- RoHS\_Yes

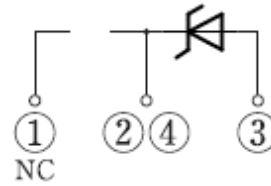
## OUTLINE

Package (House Name): STO-220

Package (JEITA Code): SC-83 similar



## Equivalent circuit



## Absolute Maximum Ratings (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	Tstg		-40 to 150	°C
Operating junction temperature	Tj		150	°C
Maximum surge reverse current	I <sub>RSM</sub>	10/1000μs, Non-repetitive	180	A
Maximum surge reverse power	P <sub>RSM</sub>	10/1000μs, Non-repetitive	7000	W
Continuous (direct) reverse voltage	V <sub>R(DC)</sub>		23	V
Maximum forward power	P <sub>F</sub>	Tl=25°C	5	W

※ : See the original Specifications

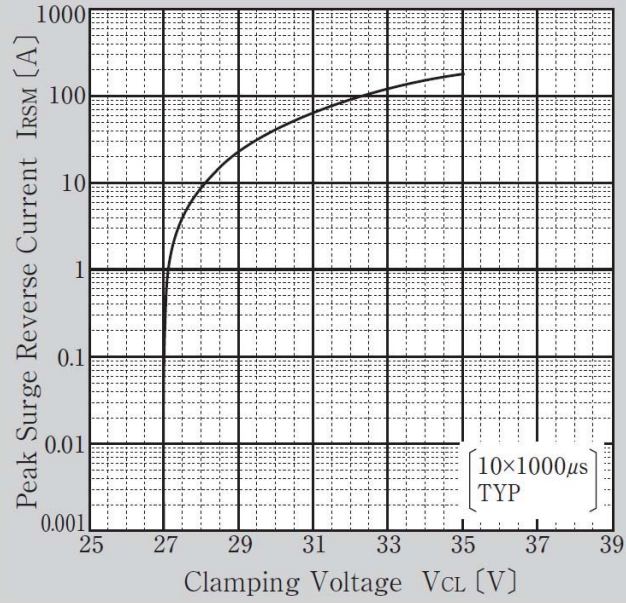
**Electrical Characteristics** (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	V <sub>BR</sub>	IR=1mA, Pulse measurement	24.3	27	29.7	V
Reverse current	I <sub>R</sub>	VR=23V			5	μA
Forward voltage	V <sub>F</sub>	IF=30A, Pulse Measurement			1.3	V
Restriction voltage	V <sub>CL</sub>	10/1000μs, Ipp=180A ※			40	V
Temperature coefficient	rz				0.09	%/°C

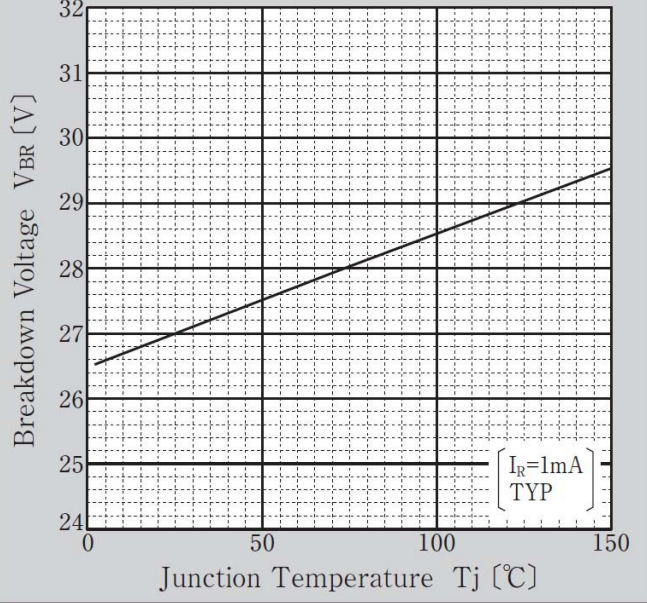
※ :See the original Specifications

# CHARACTERISTIC DIAGRAMS

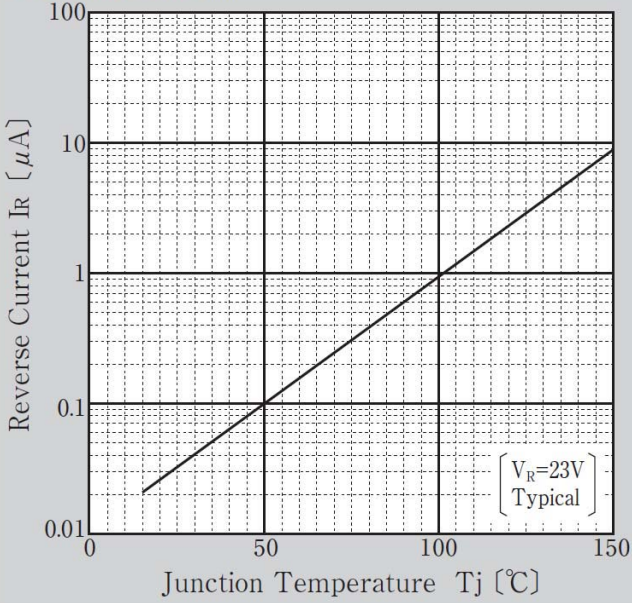
Clamping Voltage



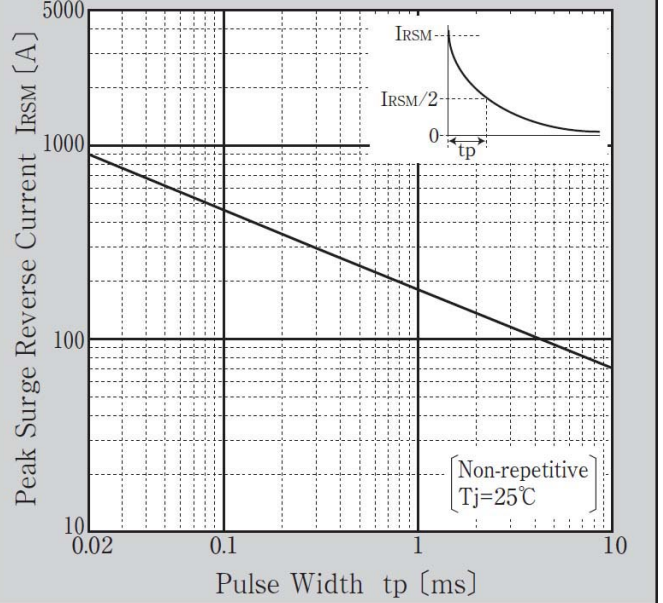
Breakdown Voltage

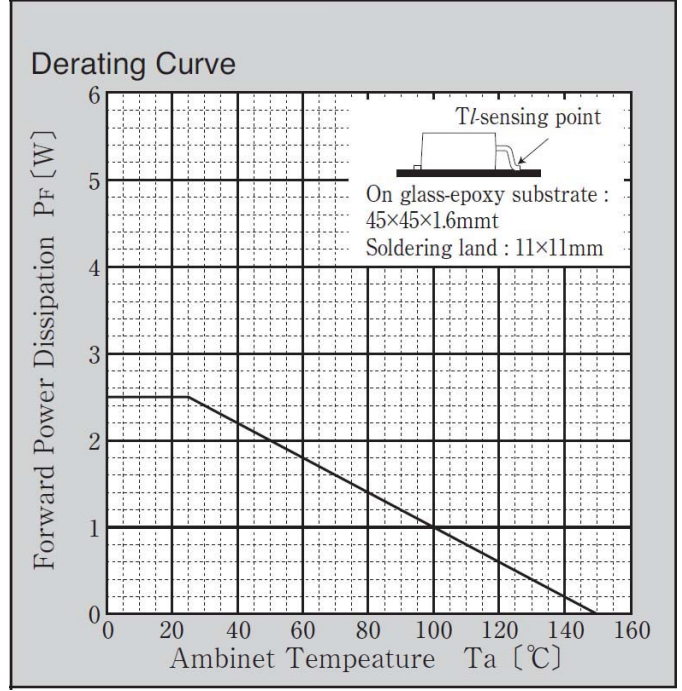
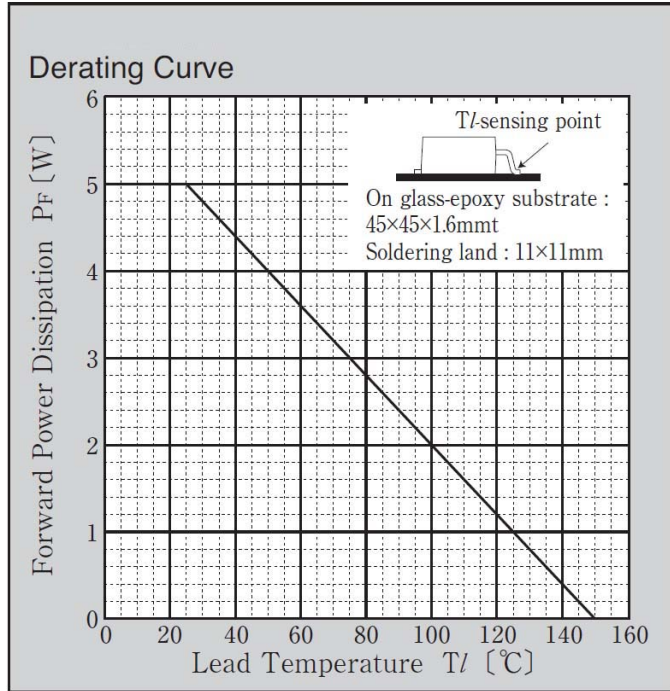
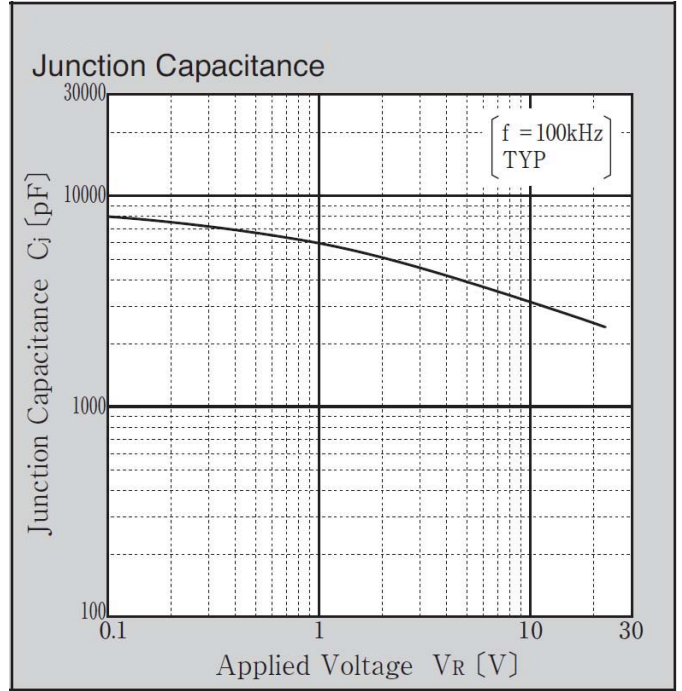
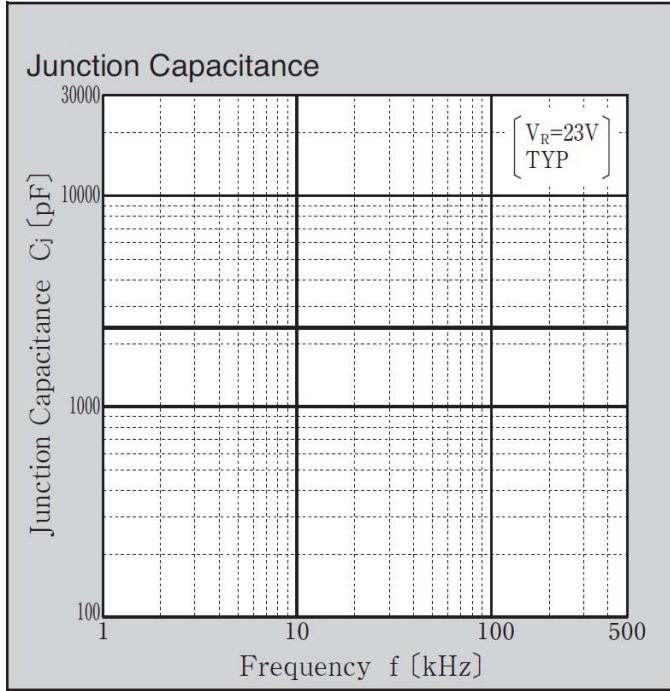


Reverse Current

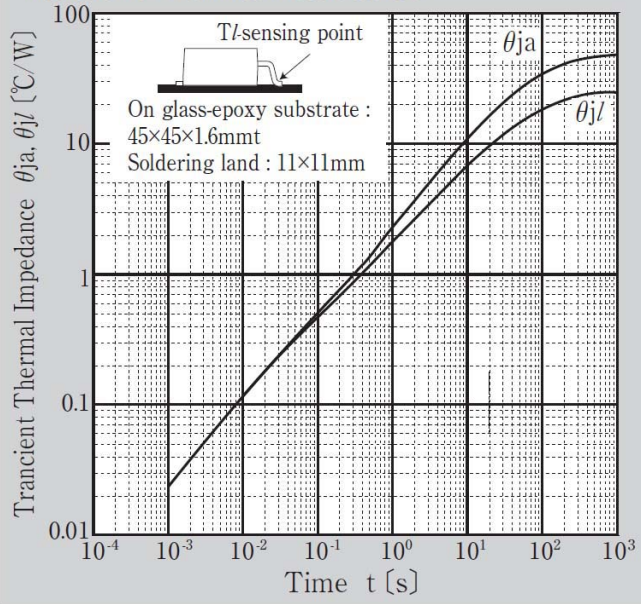


Peak Surge Reverse Current

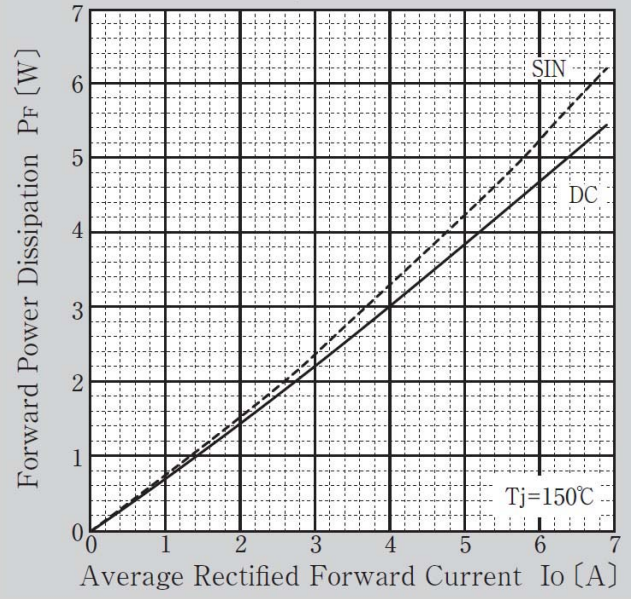




### Transient Thermal Resistance



### Forward Power Dissipation





## Notes

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  - 【Special applications】  
Transportation equipment (vehicles, ships, etc.), trunk-line communication equipment, traffic signal control systems, anti-disaster/crime systems, safety equipment, medical equipment, etc.
  - 【Specific applications】  
Nuclear reactor control systems, aircraft, aerospace equipment, submarine repeaters, life support equipment and systems, etc.
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