

# ST70-27F

TVS  
180A, 7000W

### Feature

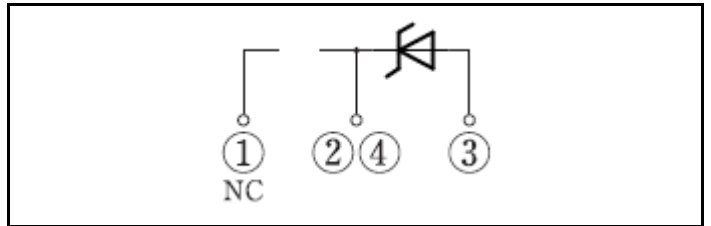
- Peak pulse power:7000W
- SMD
- Available for automotive use
- Pb free terminal
- RoHS:Yes

### OUTLINE

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



### Equivalent circuit



### Absolute Maximum Ratings (unless otherwise specified : 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

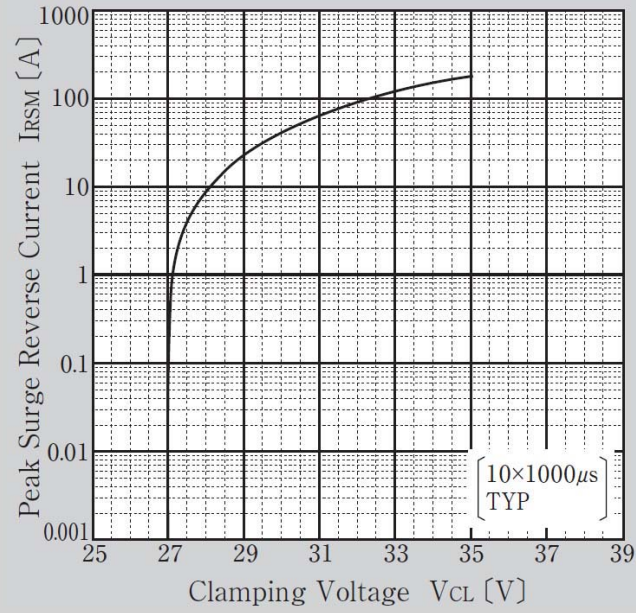
**Electrical Characteristics** (unless otherwise specified : Tc=25°C)

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

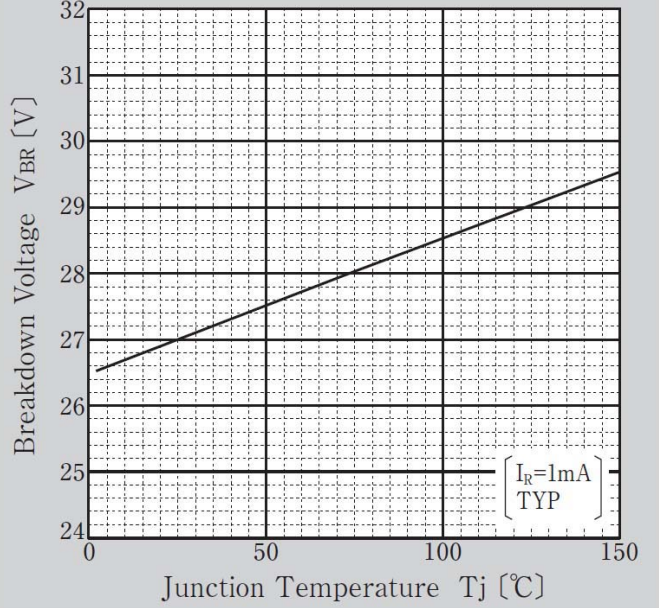
\* :See the original Specifications

# CHARACTERISTIC DIAGRAMS

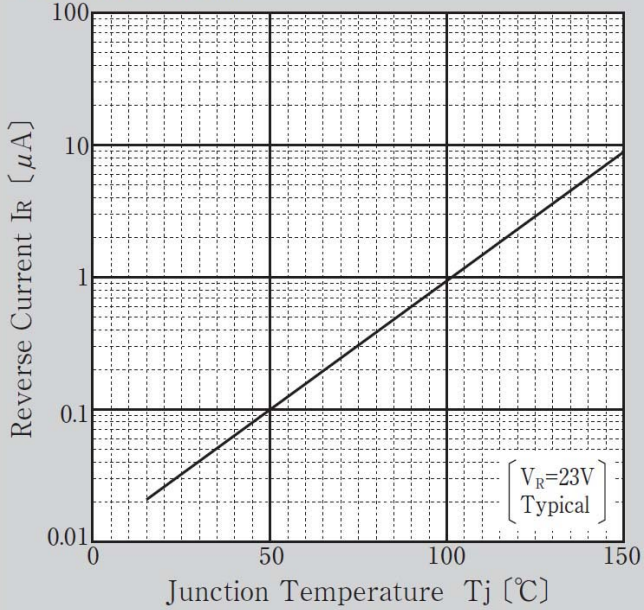
Clamping Voltage



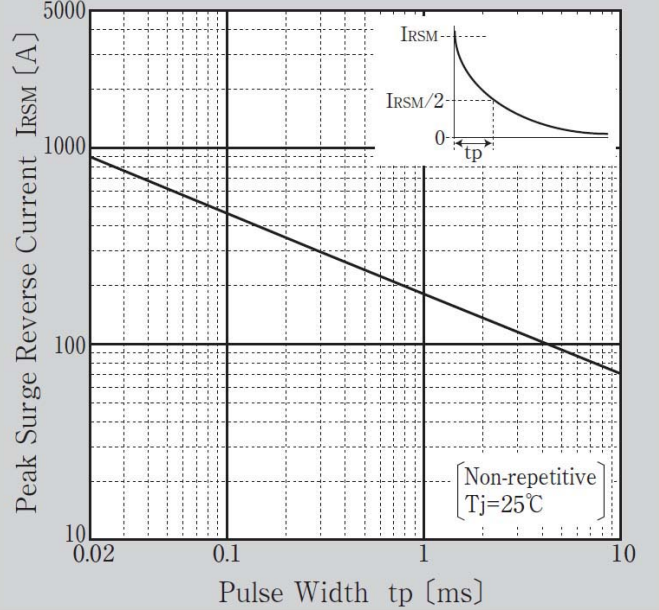
Breakdown Voltage

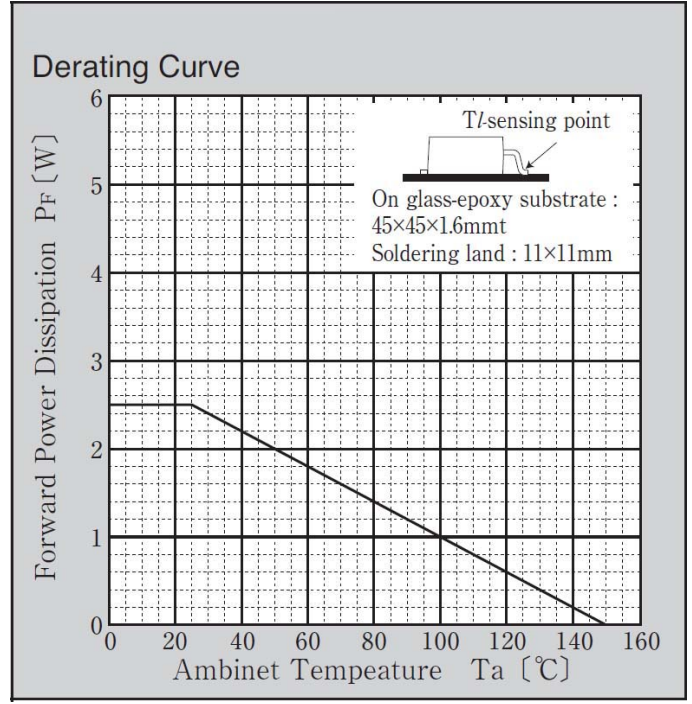
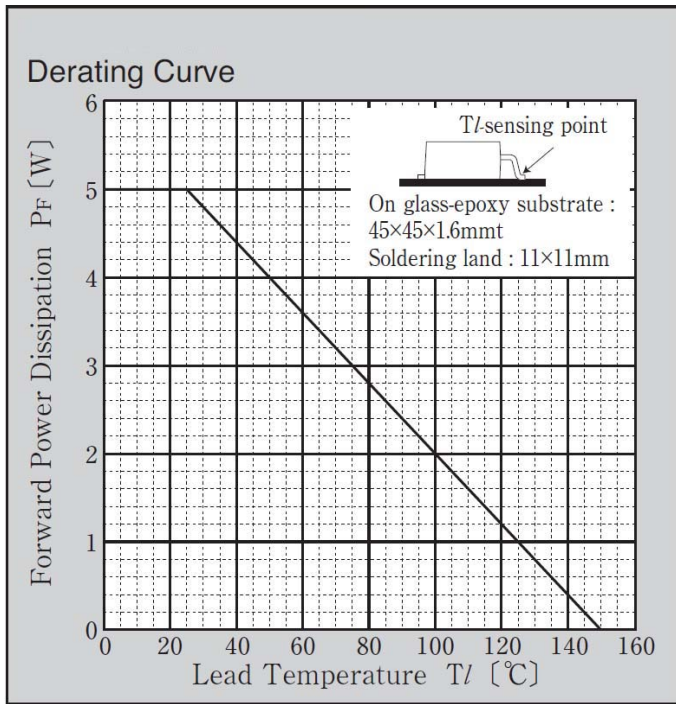
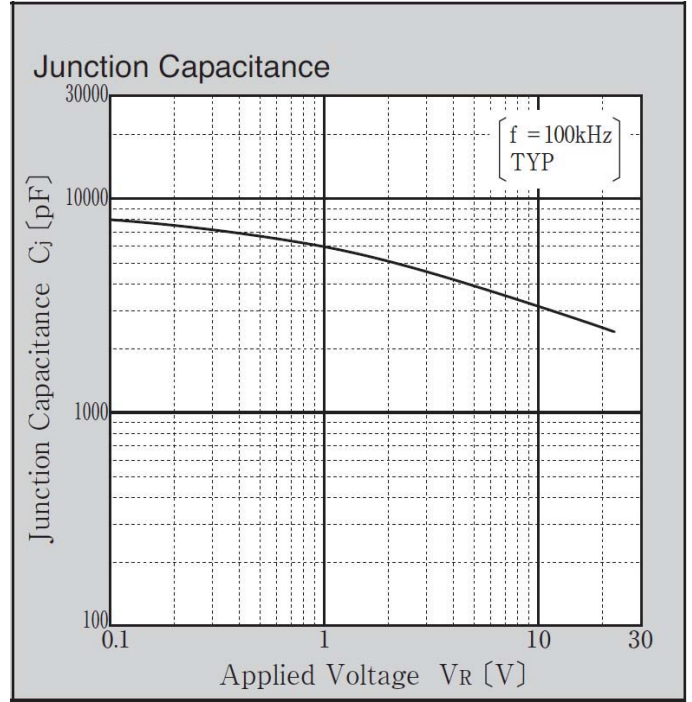
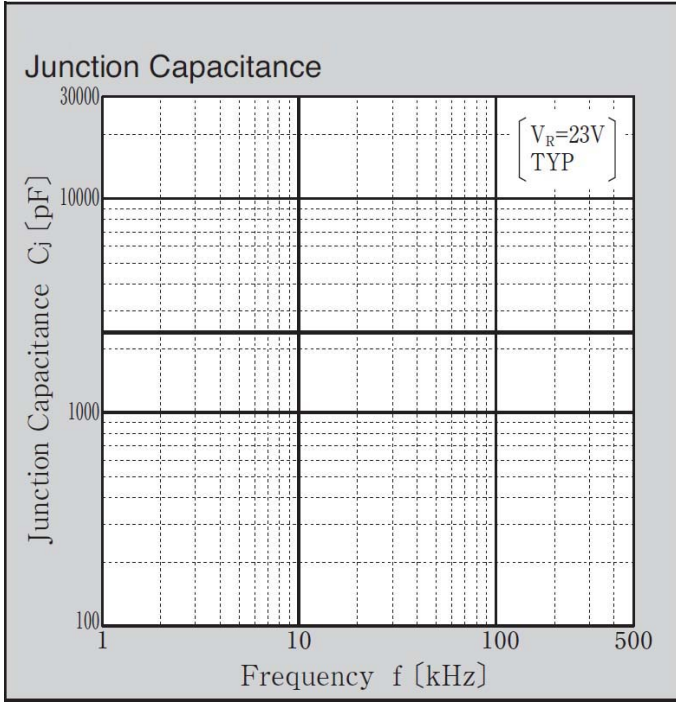


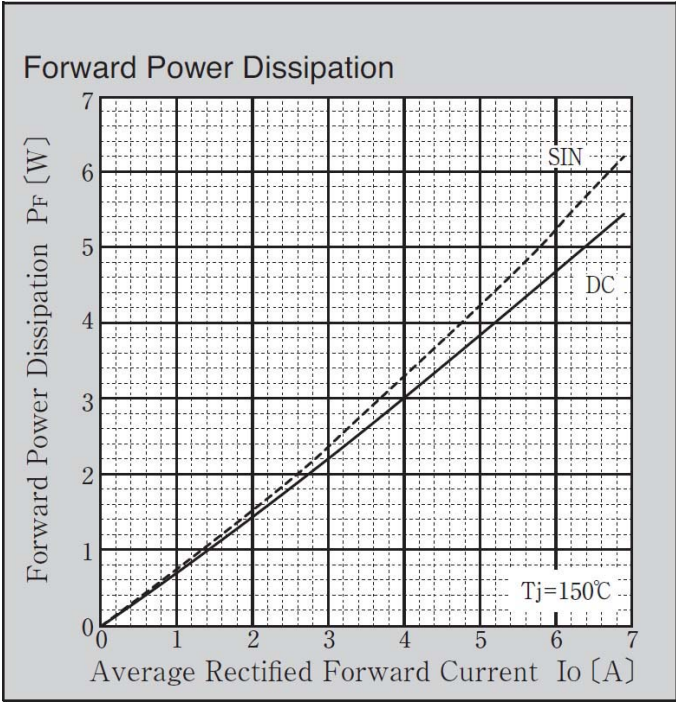
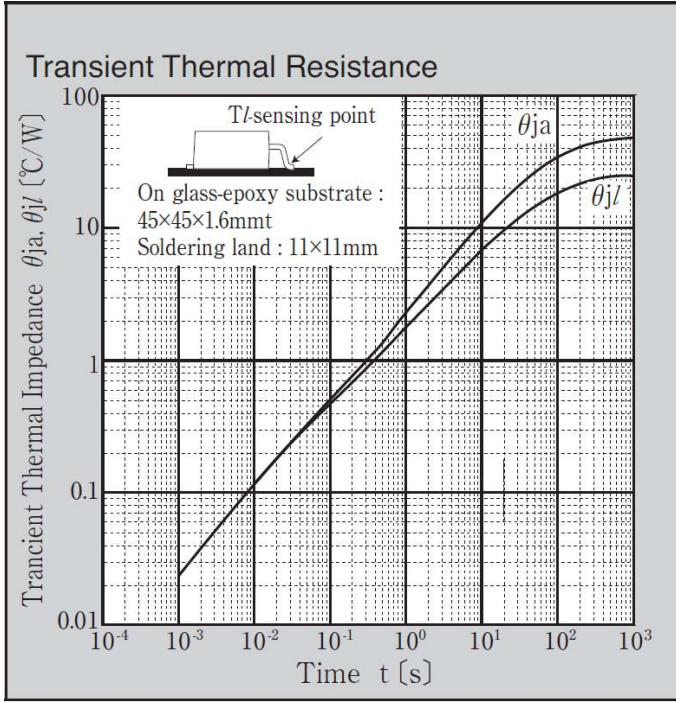
Reverse Current



Peak Surge Reverse Current

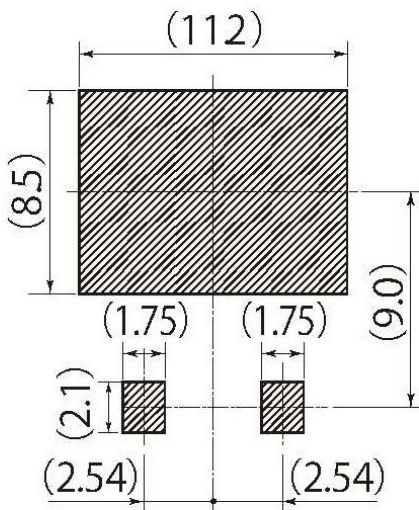
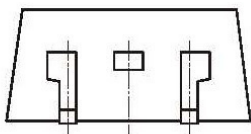
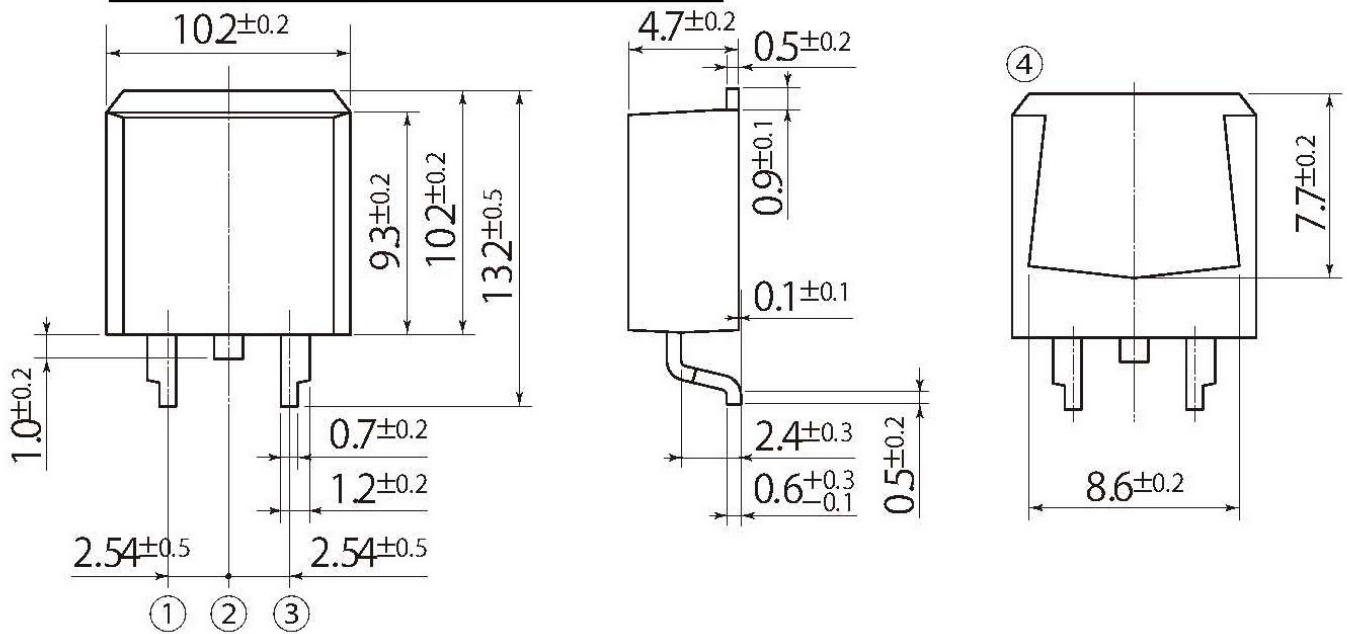






H1

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



Referential Soldering Pad

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