

ST70-27F

TVS

180A, 7000W

Feature

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

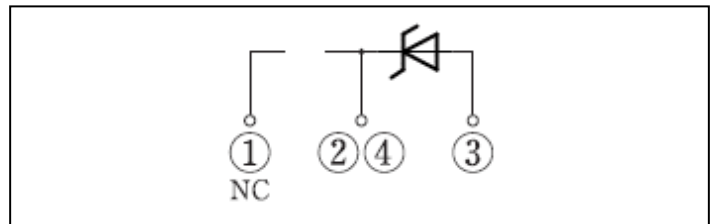
OUTLINE

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 _{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	Tl=25°C	5	W

※ :See the original Specifications

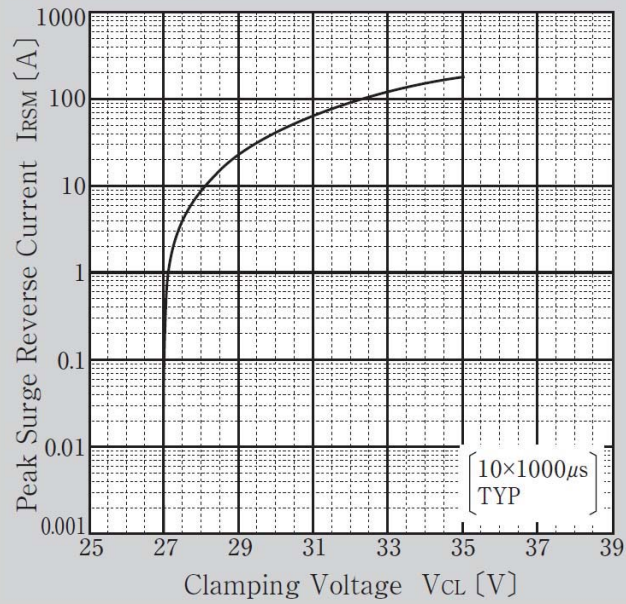
Electrical Characteristics (unless otherwise specified : Tc=25°C)

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

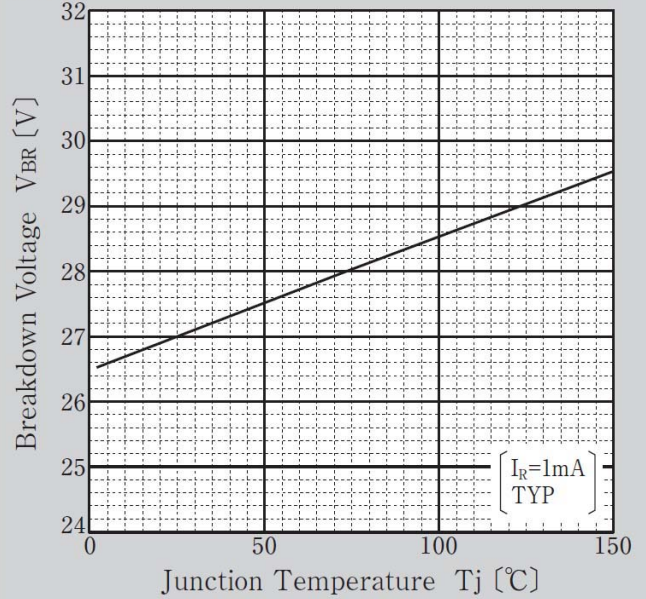
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

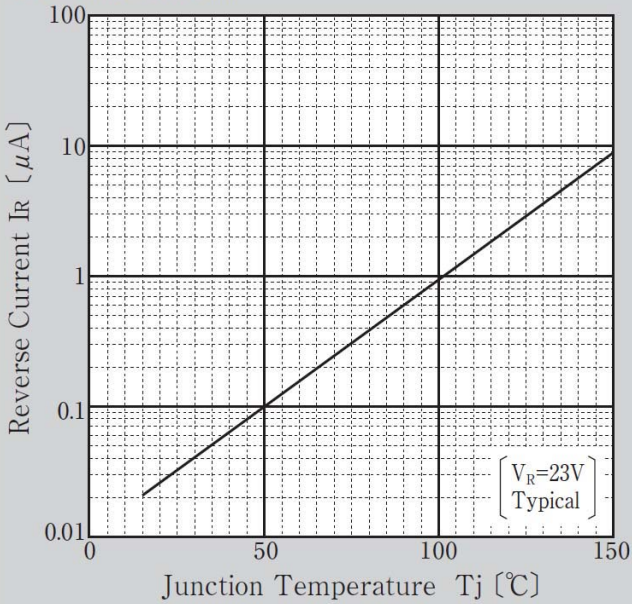
Clamping Voltage



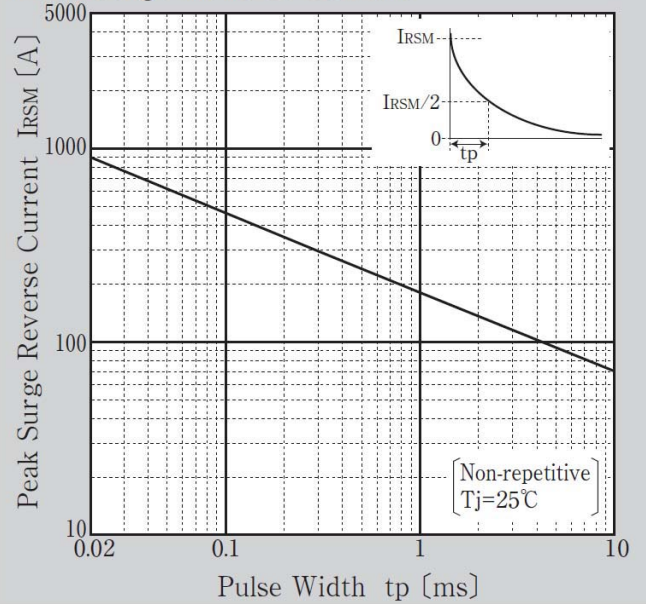
Breakdown Voltage

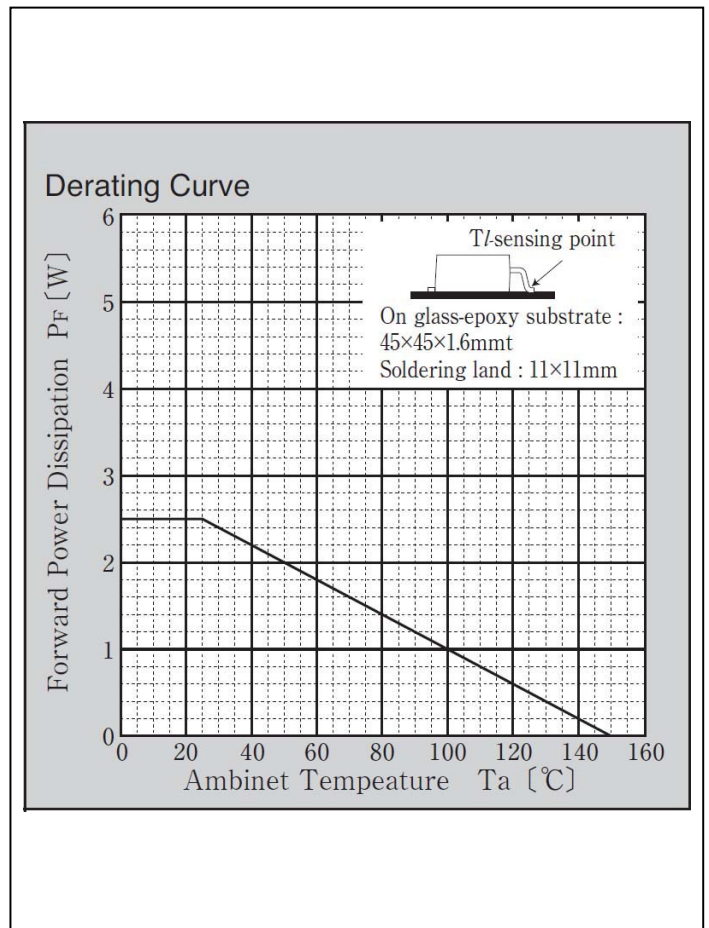
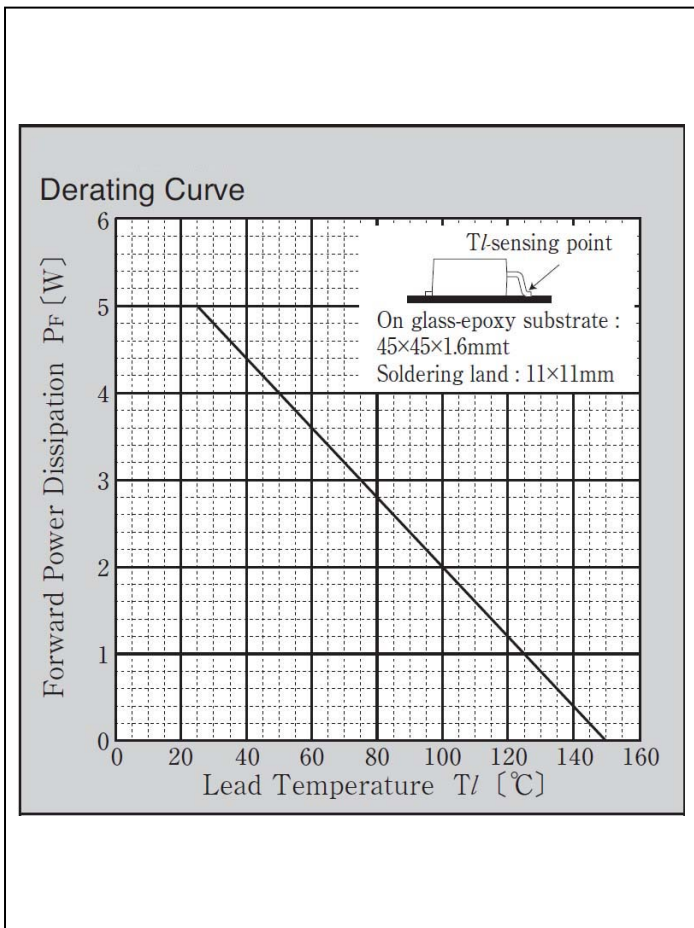
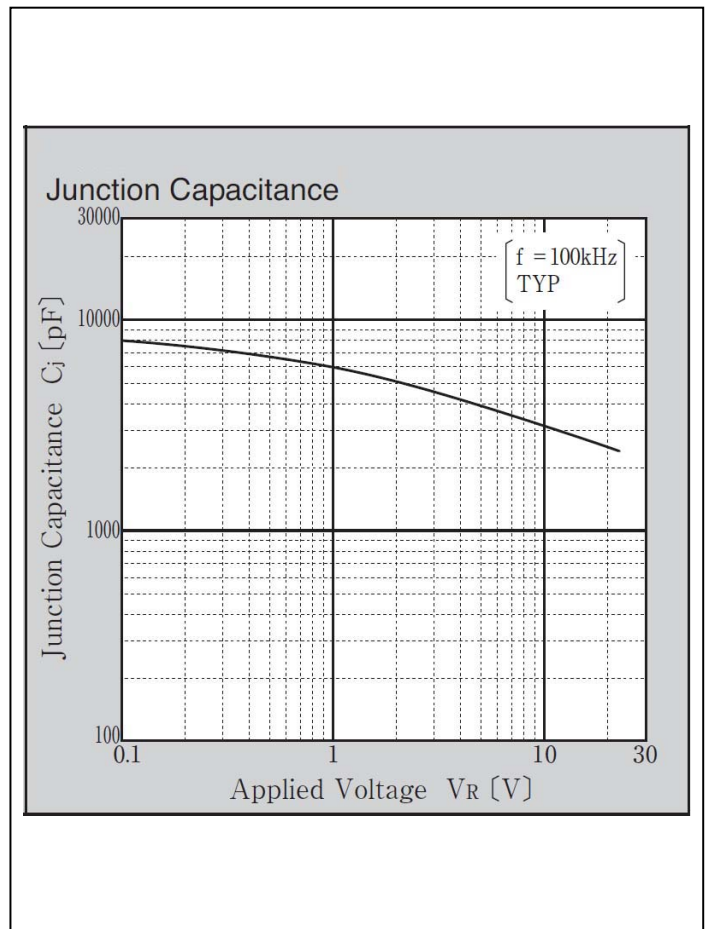
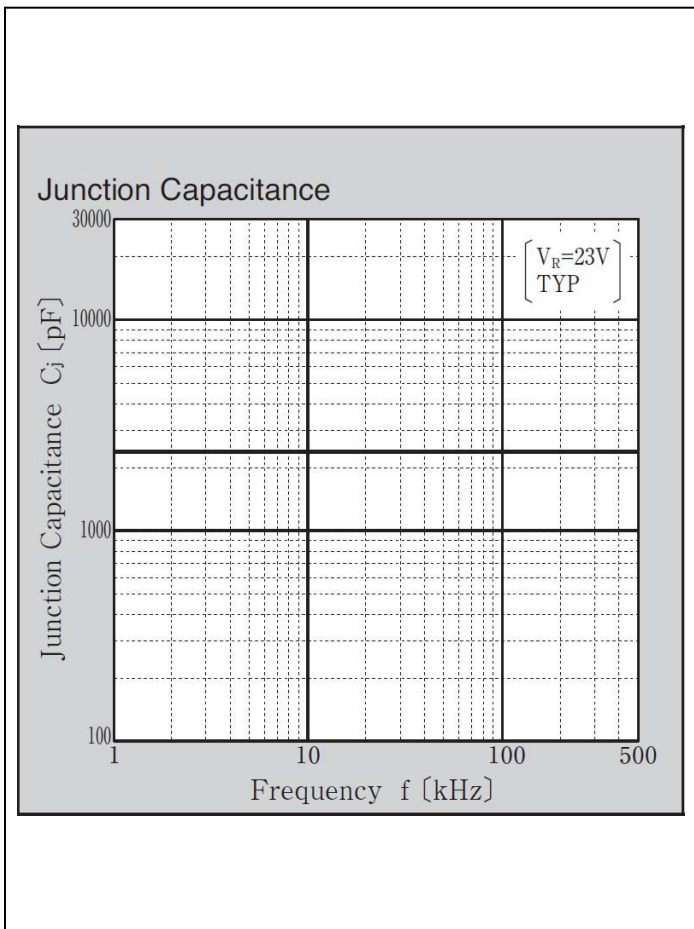


Reverse Current

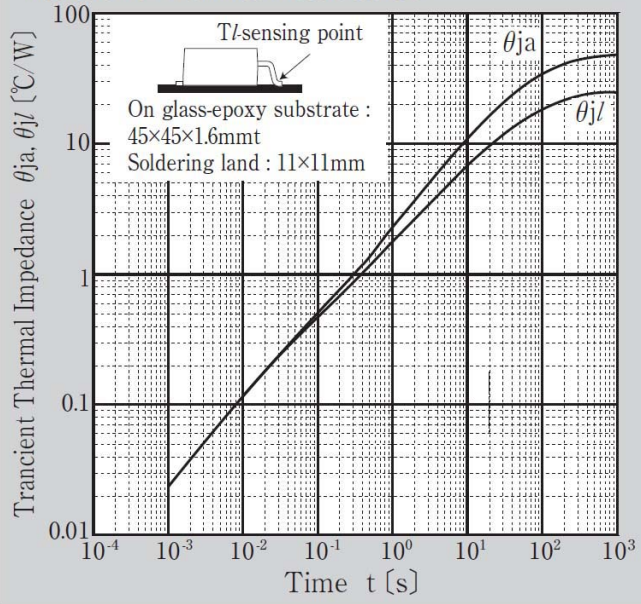


Peak Surge Reverse Current

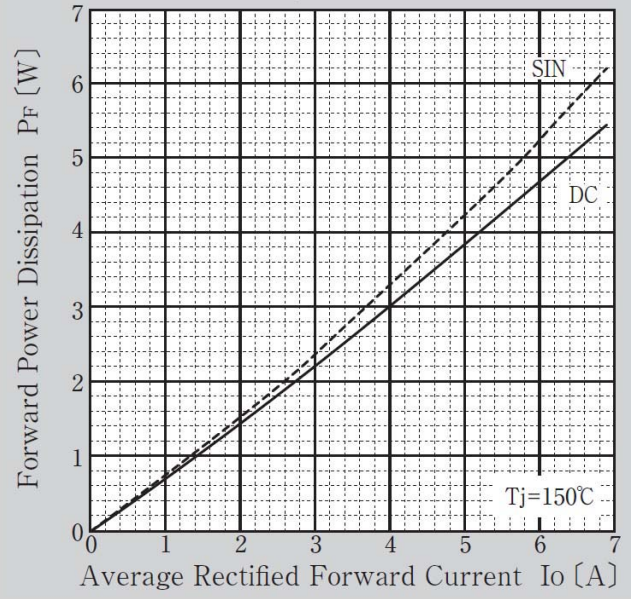




Transient Thermal Resistance



Forward Power Dissipation



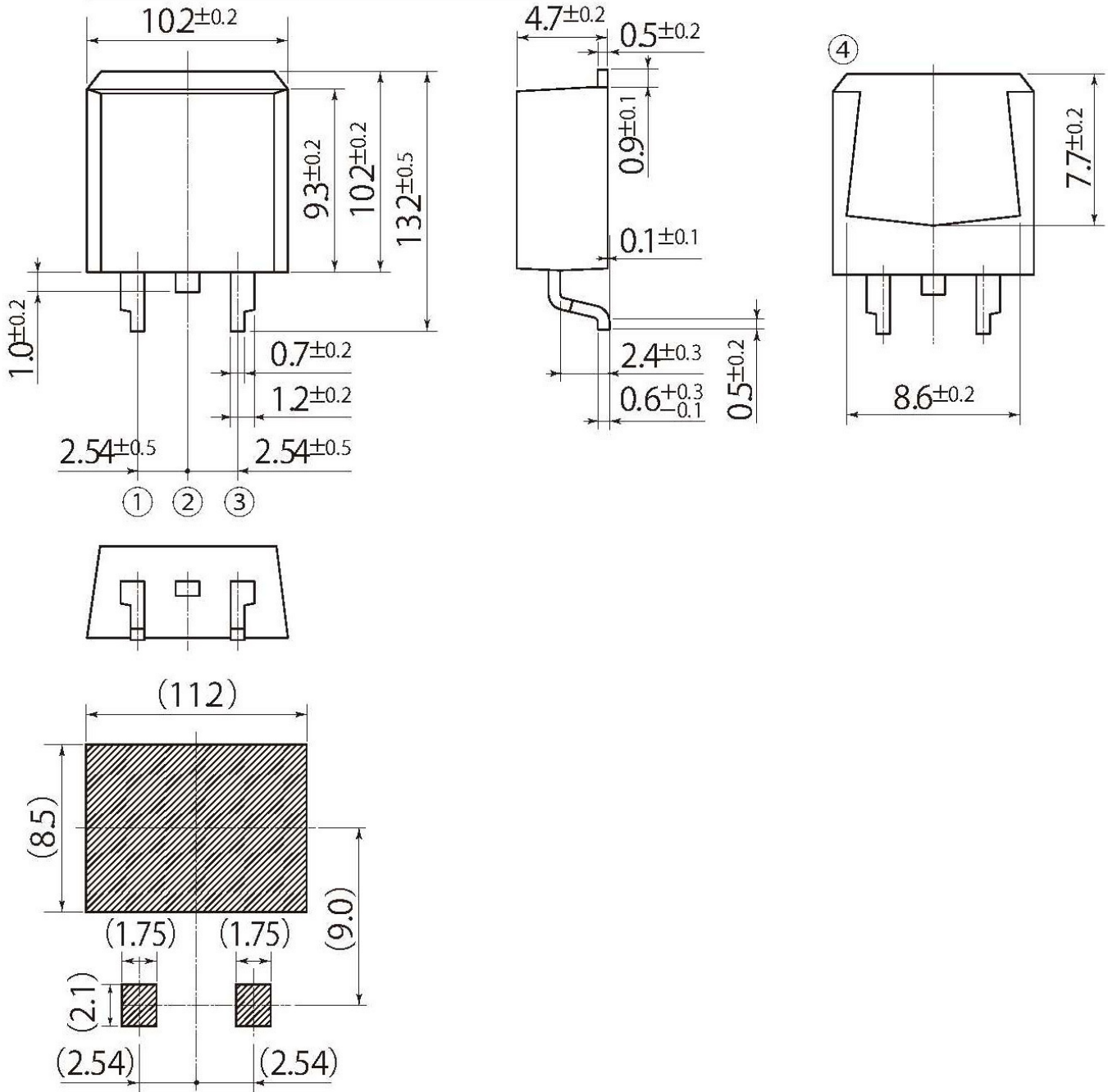
Outline Dimensions

unit:mm

scale: 3/1

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.

Notes

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