

# ST02-120F1

TVS

1.4A, 200W

## Feature

- Peak pulse power:200W
- Small SMD
- Available for automotive use
- 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	T <sub>stg</sub>		-55 to 175	°C
Operating junction temperature	T <sub>j</sub>		-55 to 150	°C
Maximum surge reverse current	I <sub>RSM</sub>	10/1000μs, Non-repetitive, Exponential wave ※	1.4	A
Maximum surge reverse power	P <sub>RSM</sub>	10/1000μs, Non-repetitive ※	200	W
Continuous (direct) reverse voltage	V <sub>R(DC)</sub>		100	V

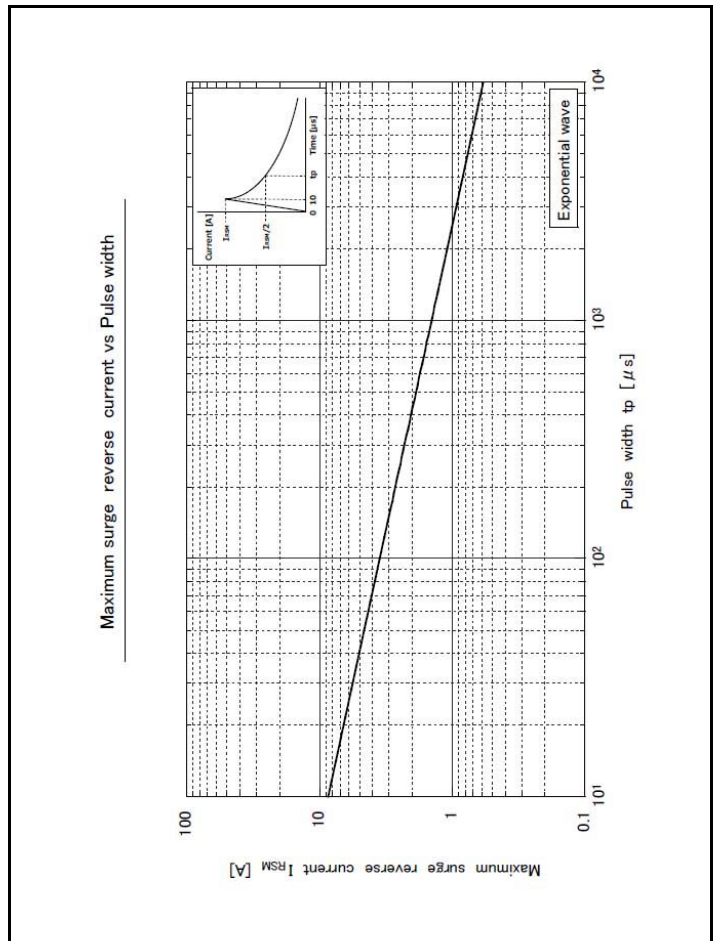
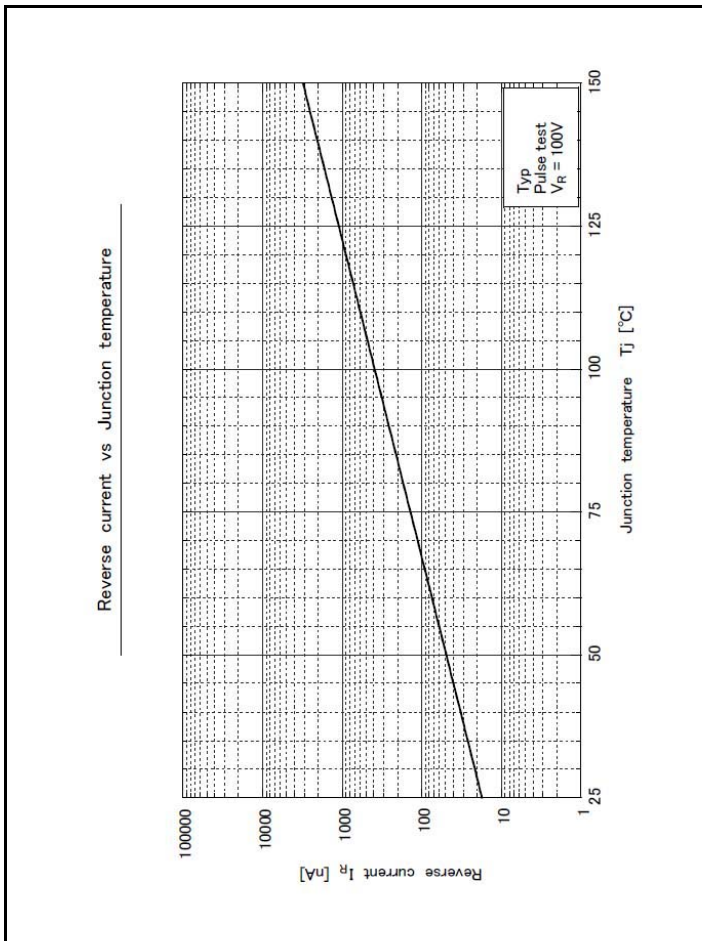
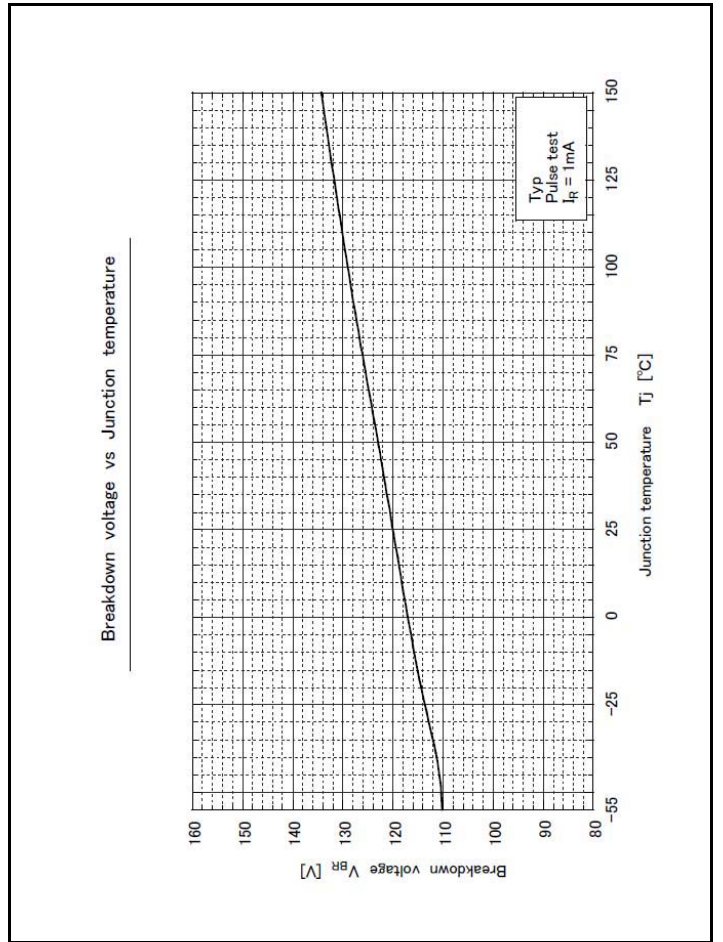
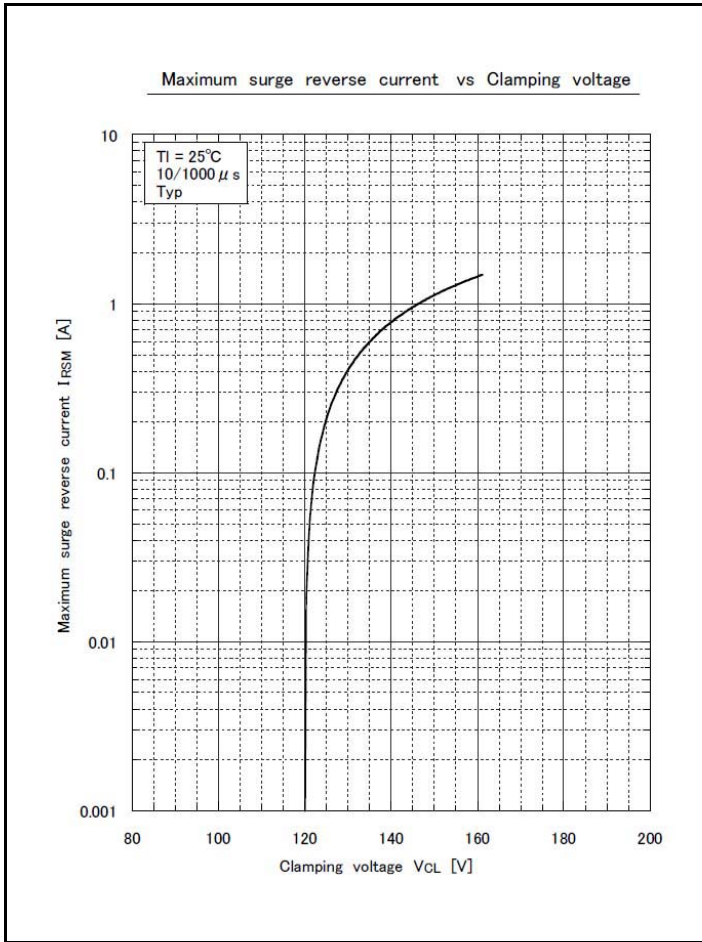
※ : See the original Specifications

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

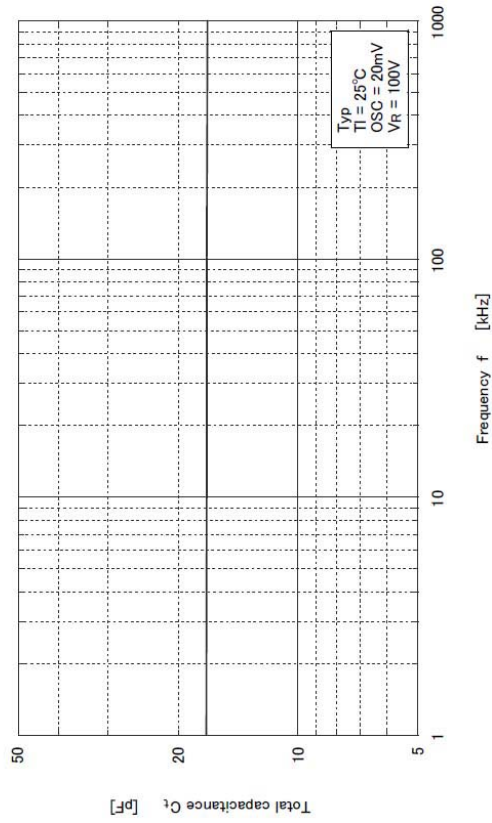
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> =1mA, Pulse measurement	110		130	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =100V, Pulse measurement			5	μA
Electrostatic discharge capability	V <sub>ESD</sub>	C=330pF, R=330Ω, Polarity±, Aerial discharge ※		30		kV
Thermal resistance	R <sub>th(j-l)</sub>	Junction to lead, On glass-epoxy substrate ※			23	°C/W
Thermal resistance	R <sub>th(j-a)</sub>	Junction to ambient, On glass-epoxy substrate ※			157	°C/W

※ : See the original Specifications

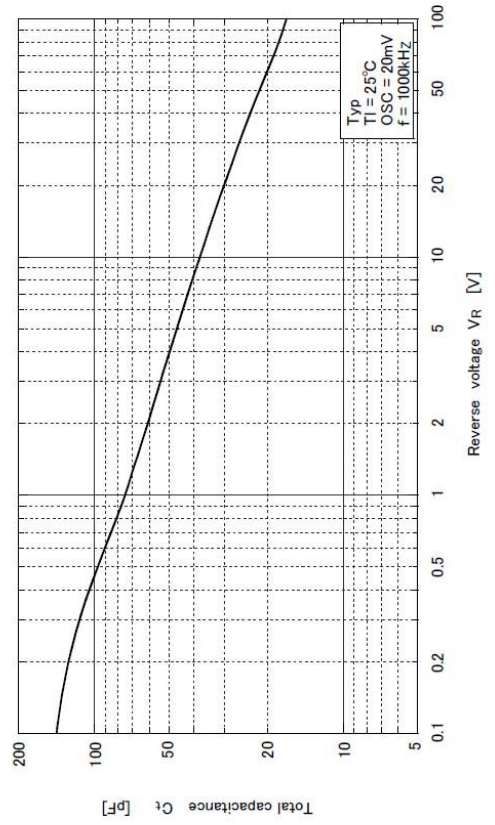
# CHARACTERISTIC DIAGRAMS



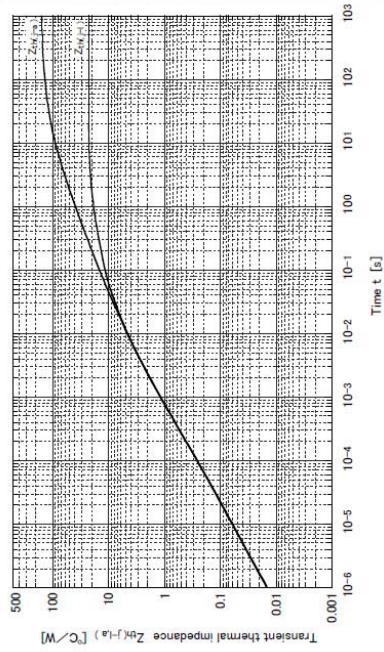
Total capacitance vs Frequency



Total capacitance vs Reverse voltage



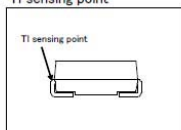
Transient thermal impedance vs Time



Substrate detail

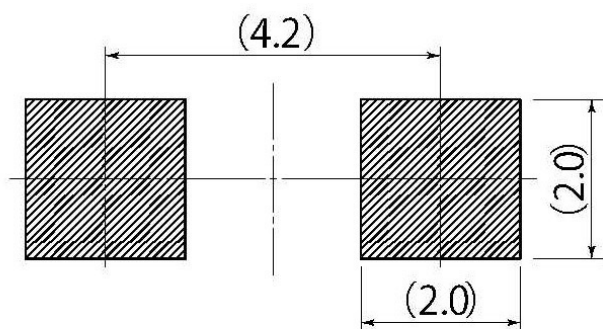
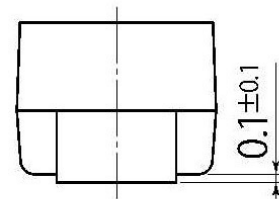
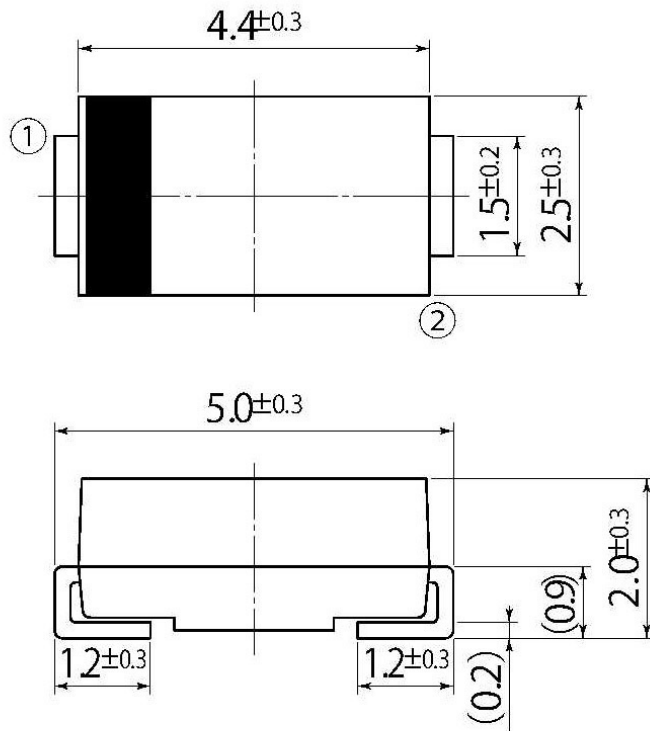
Type	Glass-epoxy
Size	1 inch <sup>2</sup>
Thickness	1mm
Conductor thickness	35μm
Pattern area	47.8mm <sup>2</sup>

Tl sensing point



B3

JEDEC Code	DO-214AC
JEITA Code	-
House Name	1F



Referential Soldering Pad

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

## Notes

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