

# ST02-39G1

TVS  
3.8A, 200W

### Feature

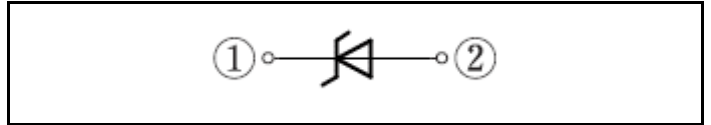
- Peak pulse power:200W
- Ultra-small SMD
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

### OUTLINE

**Package (House Name):** G1F  
**Package (JEDEC Code):** DO-219AB similar  
**Package (JEITA Code):** SC-109



### Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	Tstg		-55 to 175	°C
Operating junction temperature	Tj		-55 to 175	°C
Maximum surge reverse current	I <sub>RSM</sub>	10/1000μs, Non-repetitive ※	3.8	A
Maximum surge reverse power	P <sub>RSM</sub>	10/1000μs, Non-repetitive ※	200	W
Continuous (direct) reverse voltage	V <sub>R(DC)</sub>		30	V

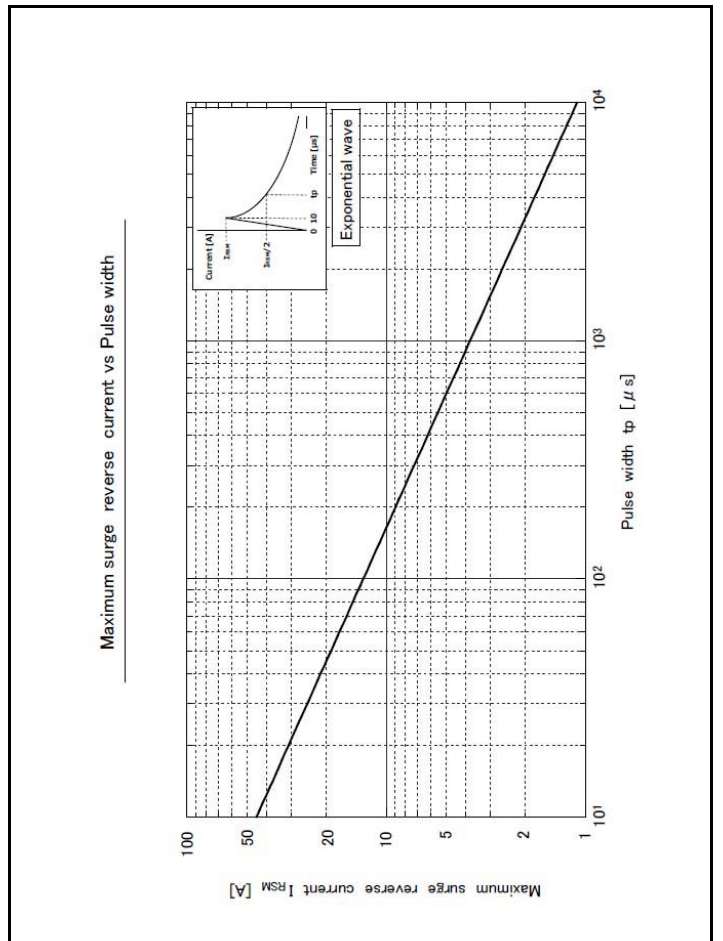
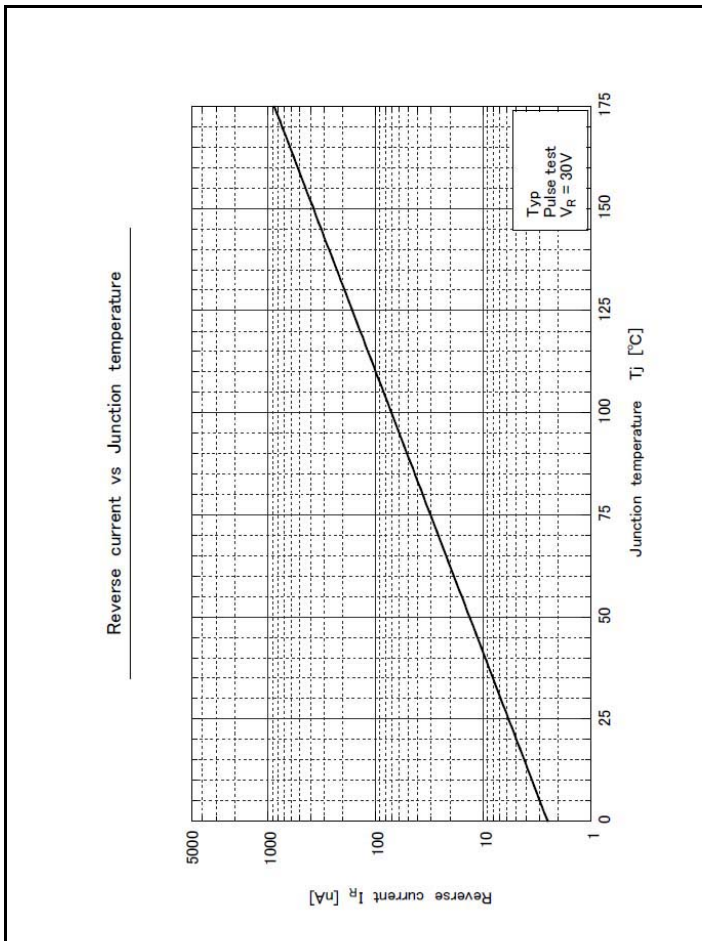
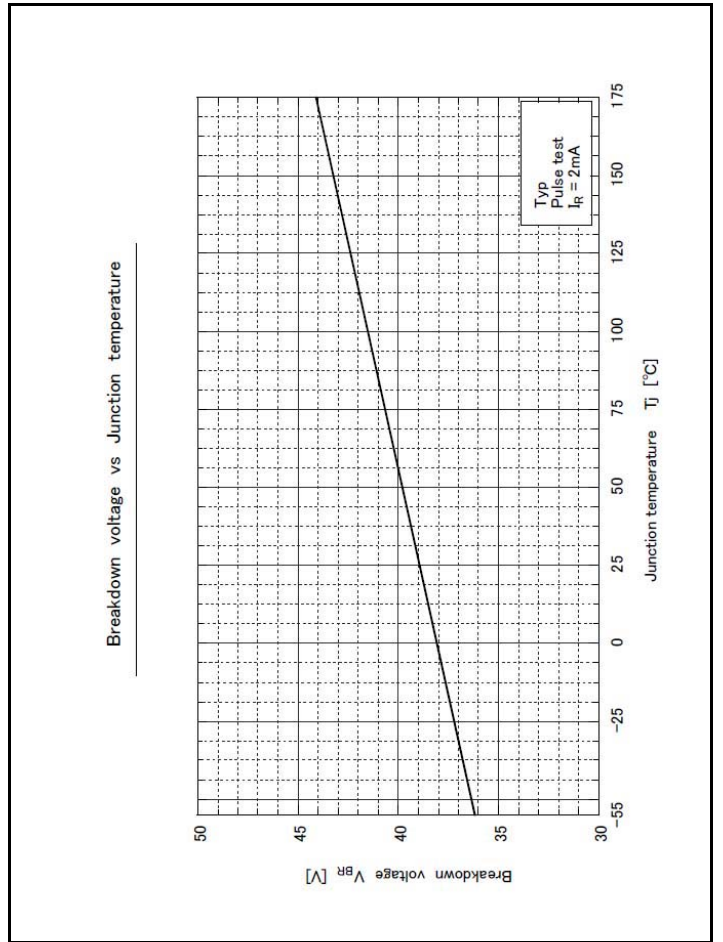
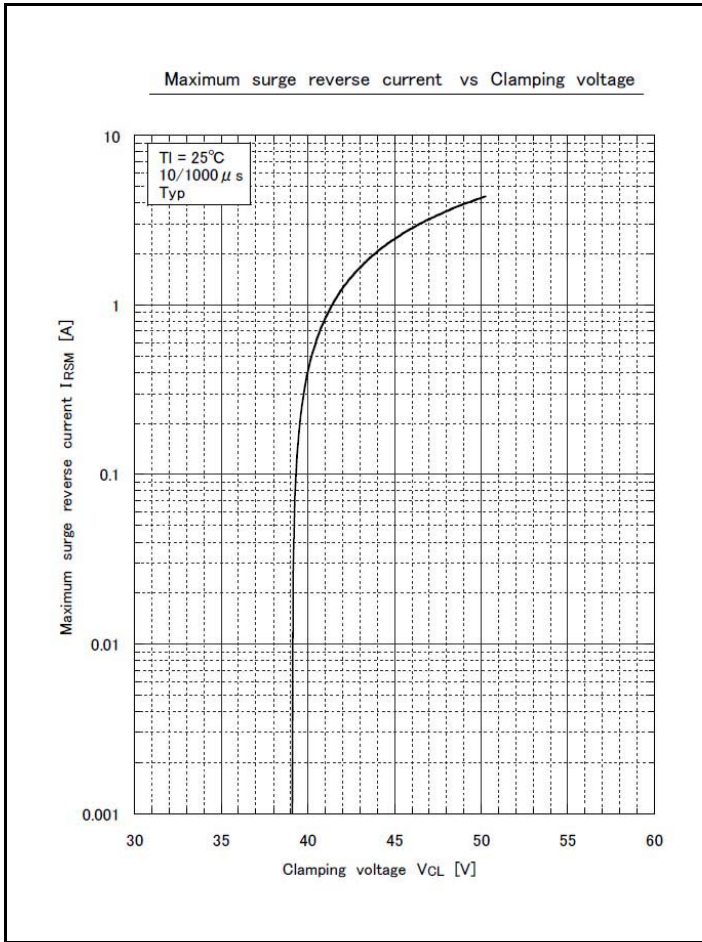
※ :See the original Specifications

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

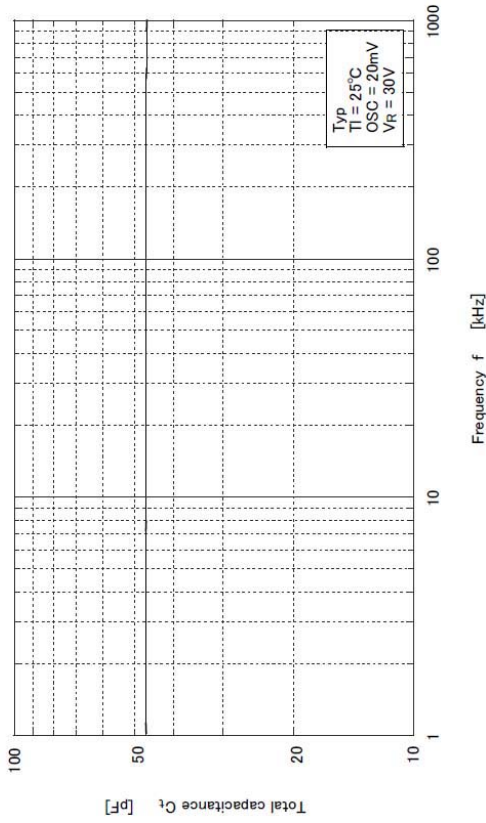
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	V <sub>BR</sub>	IR=2mA, Pulse measurement	37		41	V
Reverse current	I <sub>R</sub>	VR=30V, Pulse measurement			5	μA
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate ※			20	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate ※			120	°C/W

※ :See the original Specifications

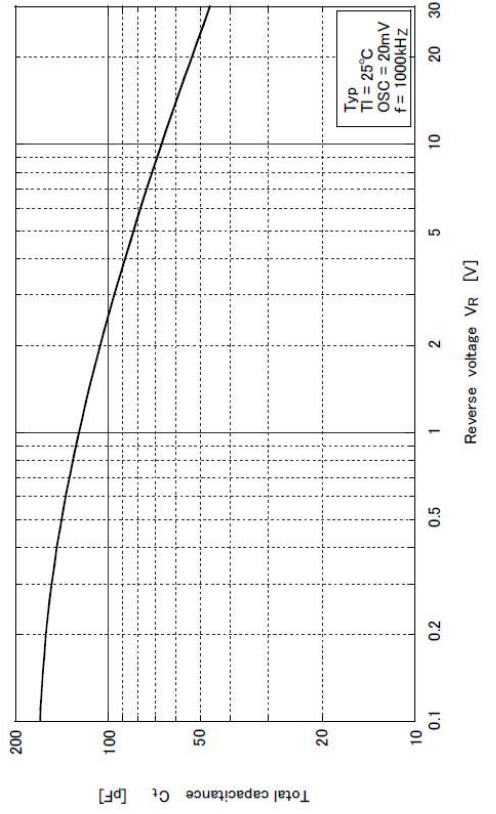
# CHARACTERISTIC DIAGRAMS



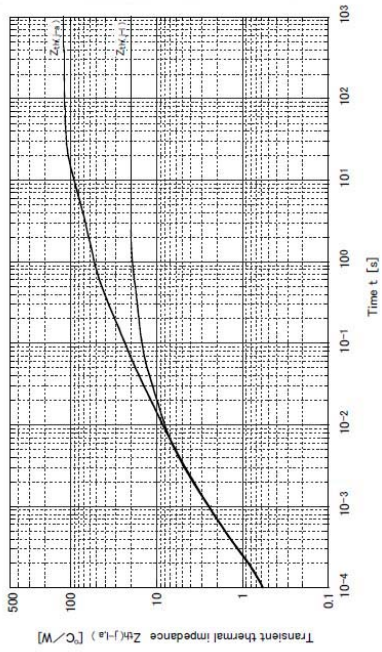
Total capacitance vs Frequency



Total capacitance vs Reverse voltage



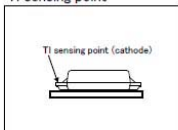
Transient thermal impedance vs Time



Substrate detail

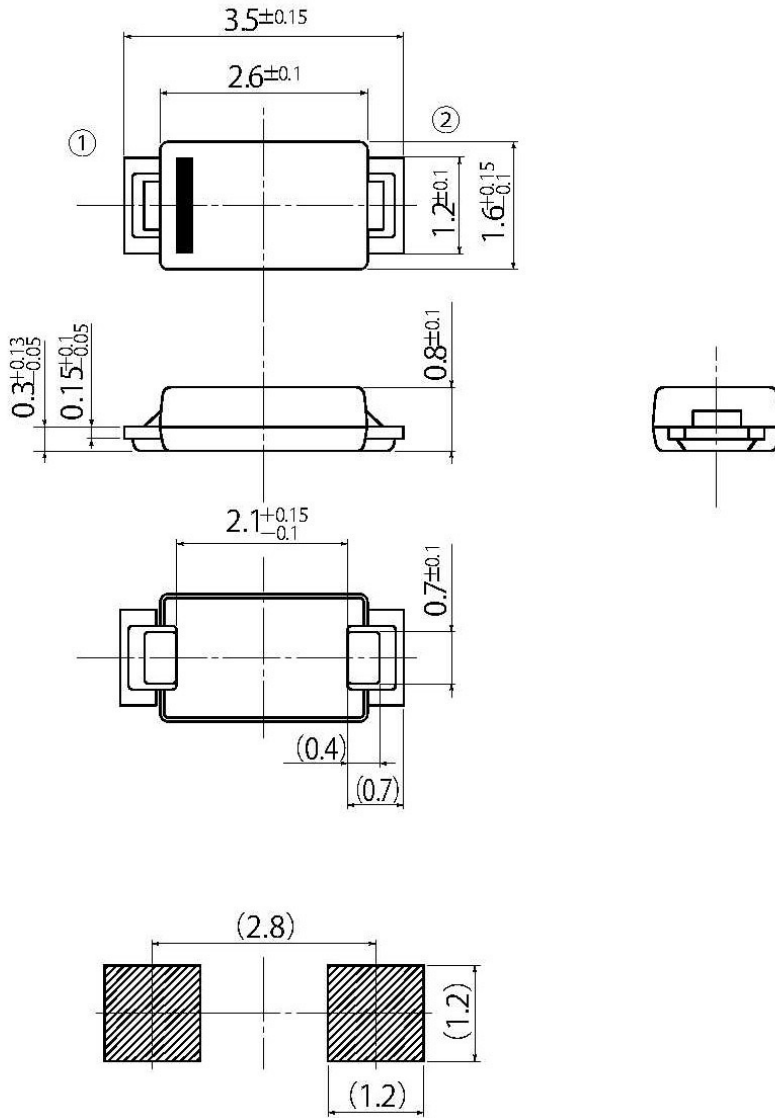
Type	Glass epoxy
Size	1 inch <sup>2</sup>
Thickness	1mm
Conductor thickness	35 μm
Pattern area	160mm <sup>2</sup>

Tl sensing point



B1

JEDEC Code	DO-219AB similar
JEITA Code	SC-109
House Name	G1F



Referential Soldering Pad

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

## Notes

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