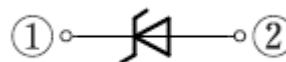


**ST02-30G1****TVS****5.0A, 200W****Feature**

- 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, Exponential wave ※	5	A
Maximum surge reverse power	P <sub>RSM</sub>	10/1000μs, Non-repetitive ※	200	W
Continuous (direct) reverse voltage	V <sub>R(DC)</sub>		24	V

※ :See the original Specifications

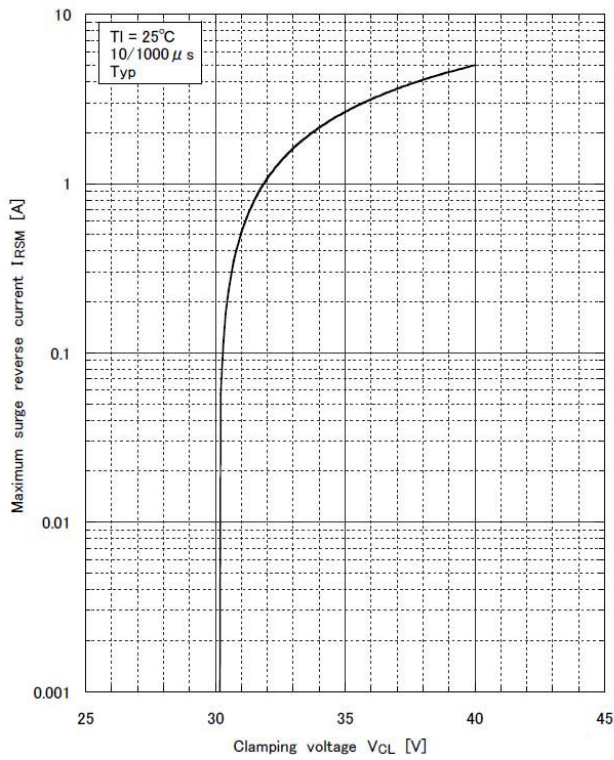
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	V <sub>BR</sub>	IR=2mA, Pulse measurement	28	30	32	V
Reverse current	I <sub>R</sub>	VR=24V, 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

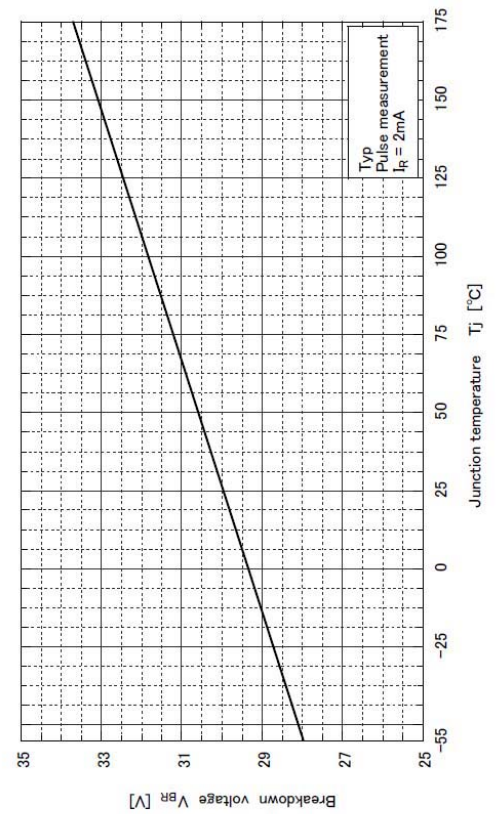
※ :See the original Specifications

# CHARACTERISTIC DIAGRAMS

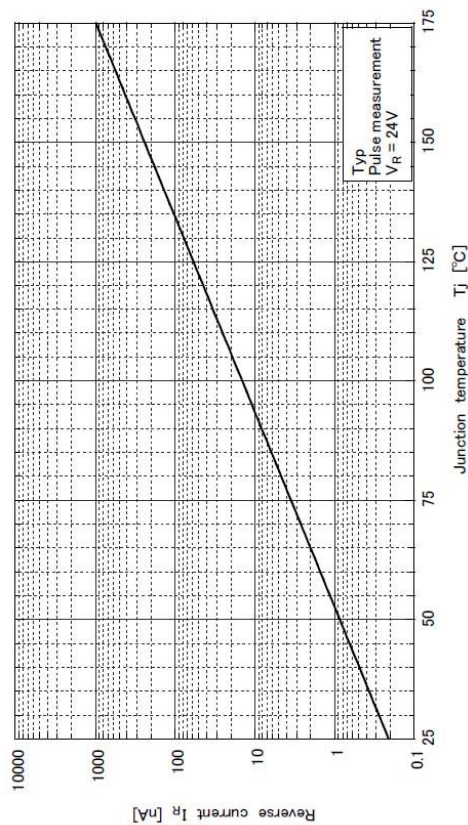
Maximum surge reverse current vs Clamping voltage



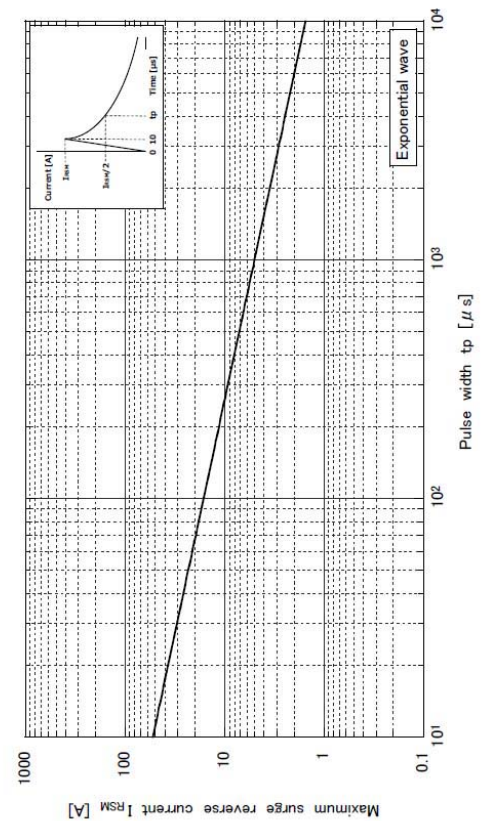
Breakdown voltage vs Junction temperature



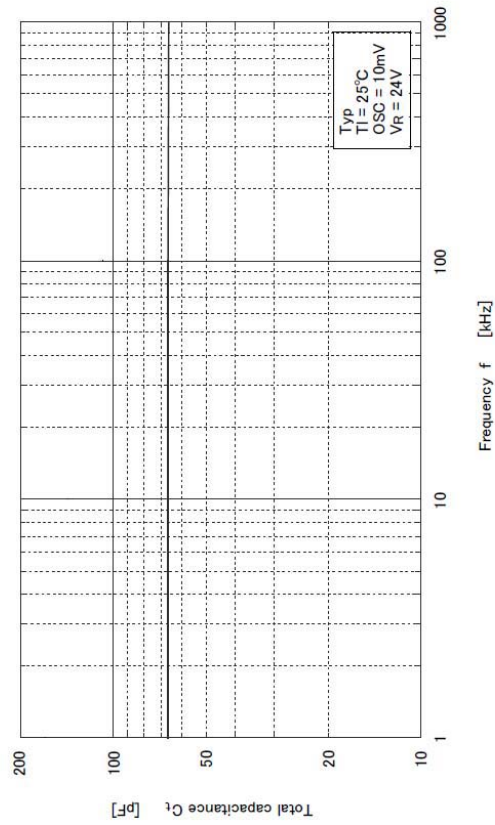
Reverse current vs Junction temperature



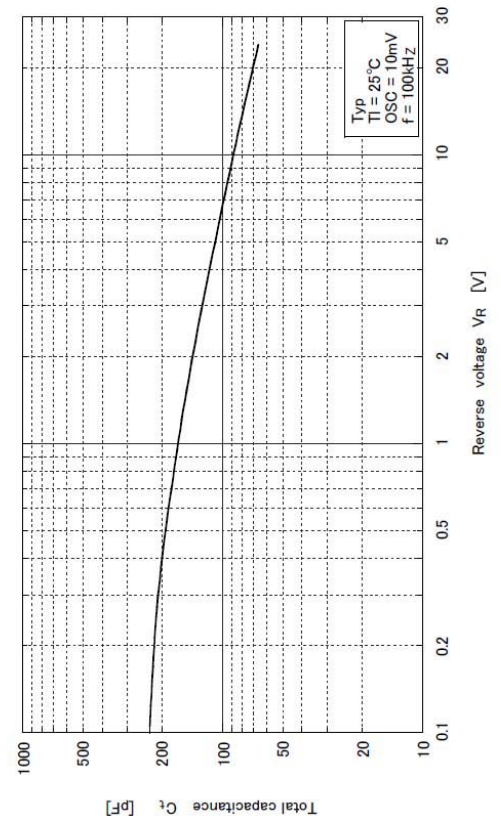
Maximum surge reverse current vs Pulse width



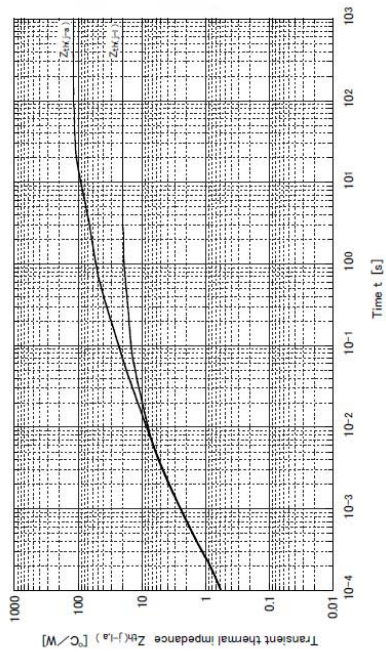
Total capacitance vs Frequency



Total capacitance vs Reverse voltage



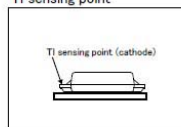
Transient thermal impedance vs Time



Substrate detail

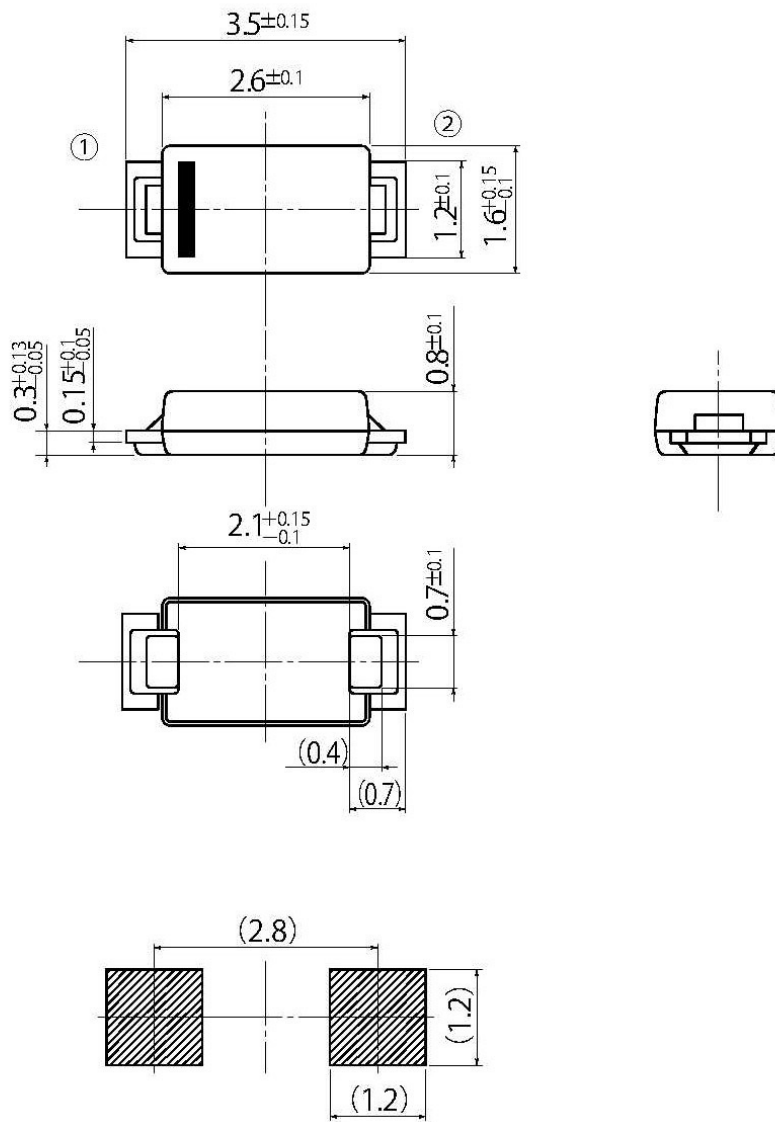
Type	Glass/epoxy
Size	1 inch <sup>2</sup>
Thickness	1mm
Conductor thickness	35μm
Pattern area	160mm <sup>2</sup>

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.

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