

ST02-16G1

TVS

9.1A, 200W

Feature

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

OUTLINE

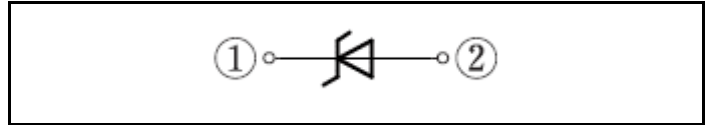
Package (House Name): G1F

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 _{RSM}	10/1000μs, Non-repetitive *	9.1	A
Maximum surge reverse power	P _{RSM}	10/1000μs, Non-repetitive *	200	W
Continuous (direct) reverse voltage	V _{R(DC)}		13.6	V

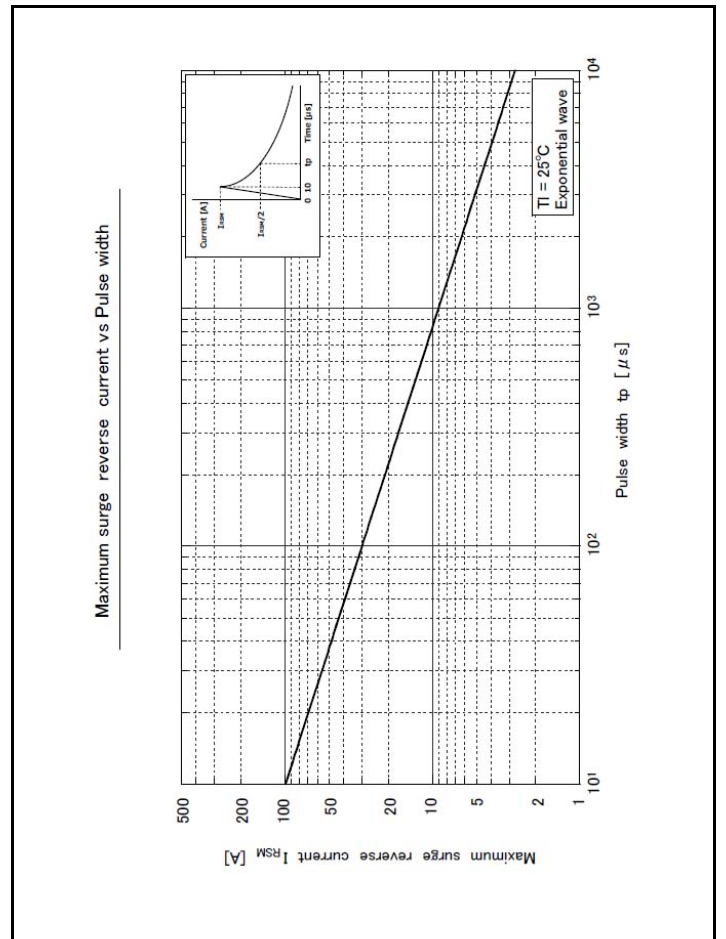
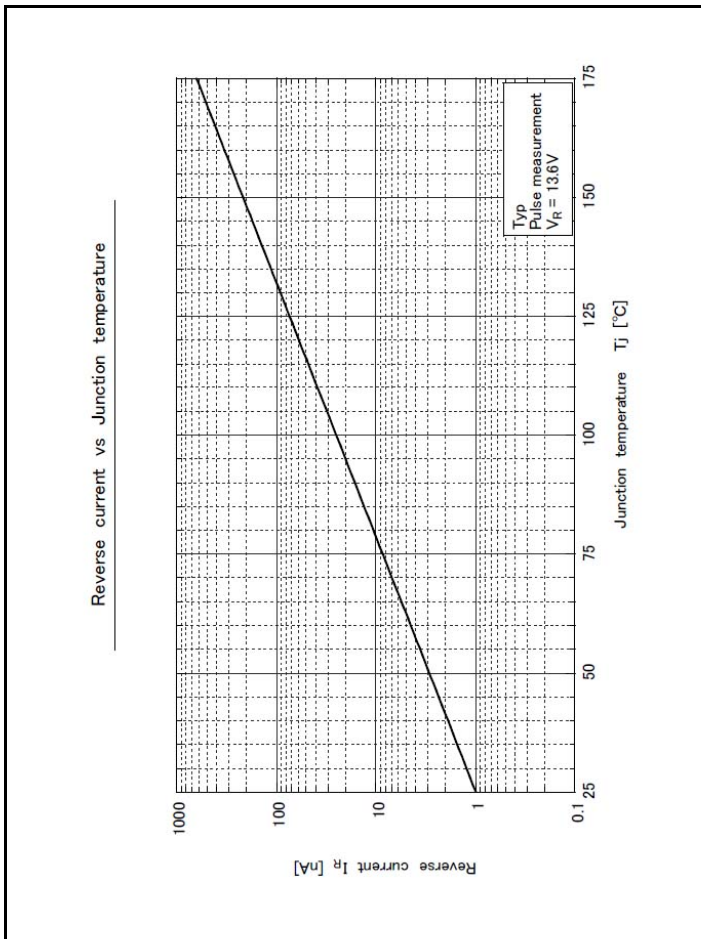
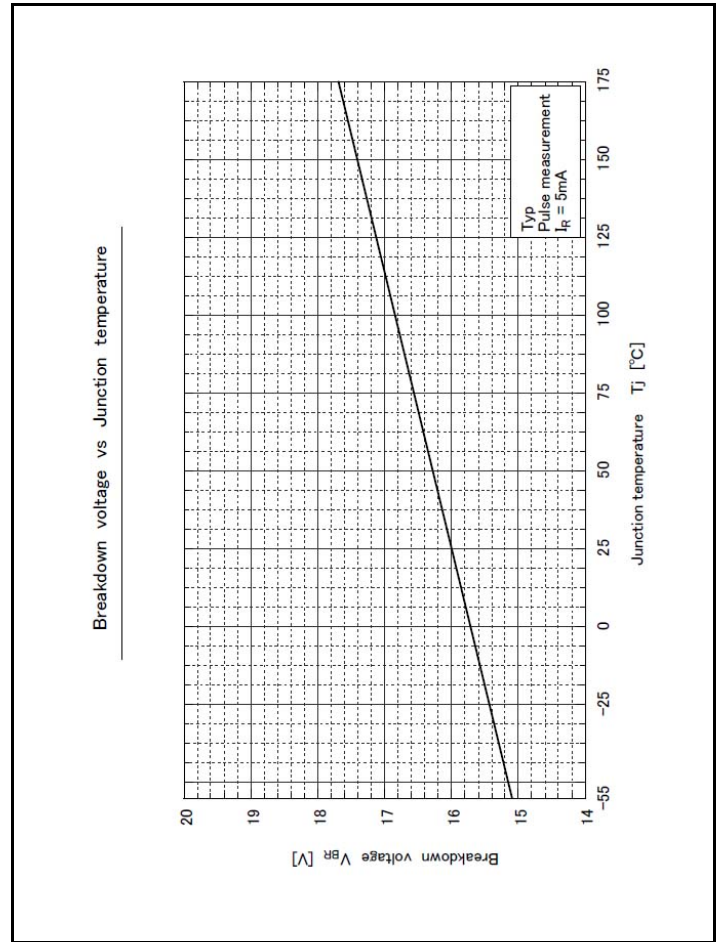
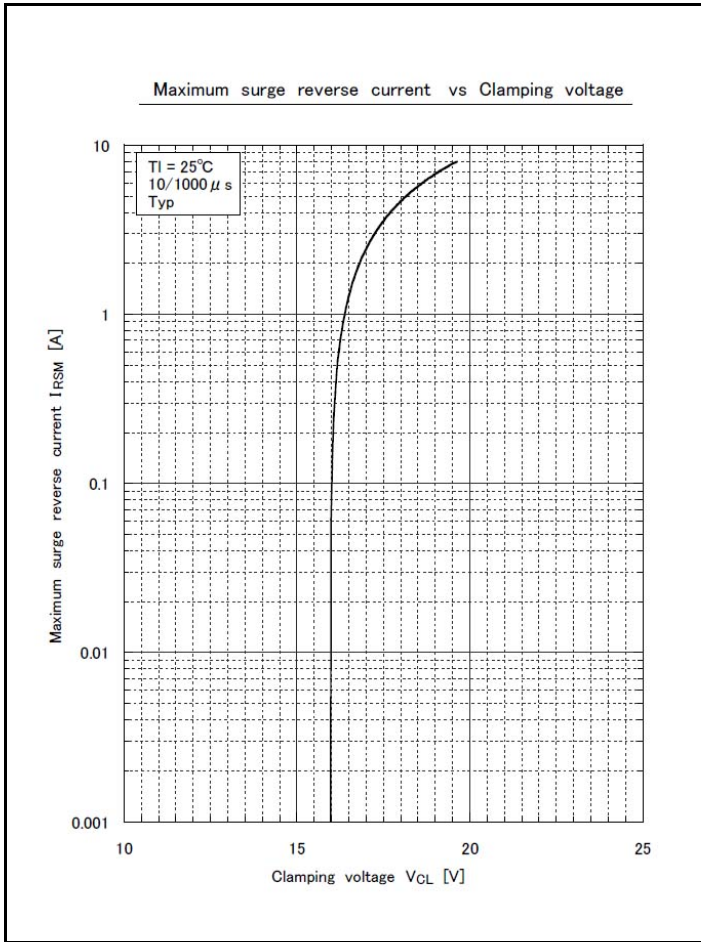
* :See the original Specifications

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

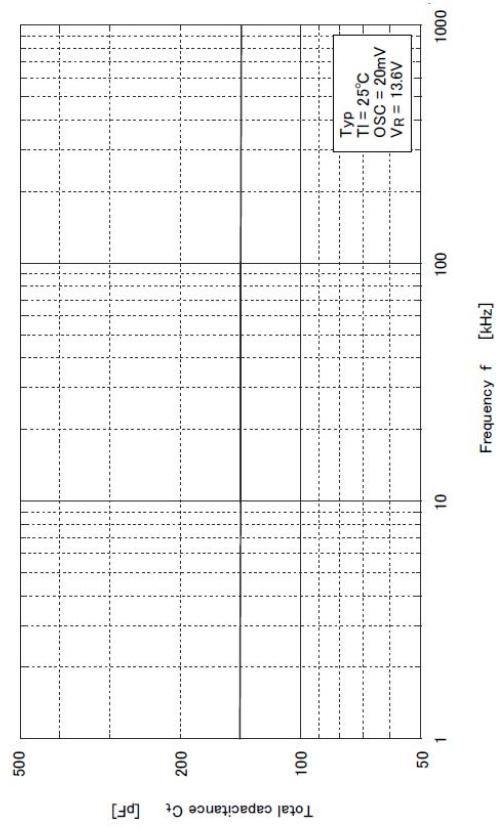
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	V _{BR}	IR=5mA, Pulse measurement	14.4		17.6	V
Reverse current	I _R	VR=13.6V, Pulse measurement			5	μA
Thermal resistance	Rth(j-l)	Junction to lead, On glass-epoxy substrate *			20	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate *			120	°C/W

* :See the original Specifications

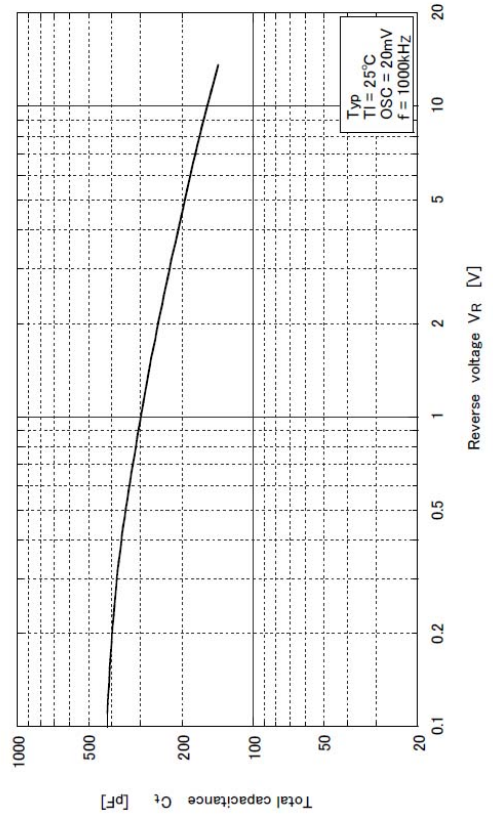
CHARACTERISTIC DIAGRAMS



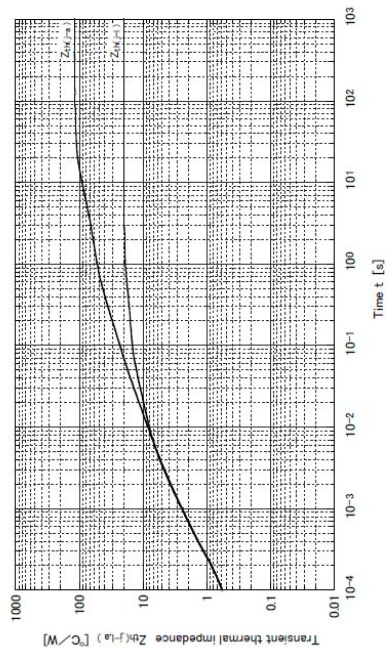
Total capacitance vs Frequency



Total capacitance vs Reverse voltage



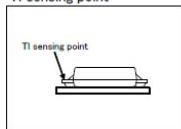
Transient thermal impedance vs Time



Substrate detail

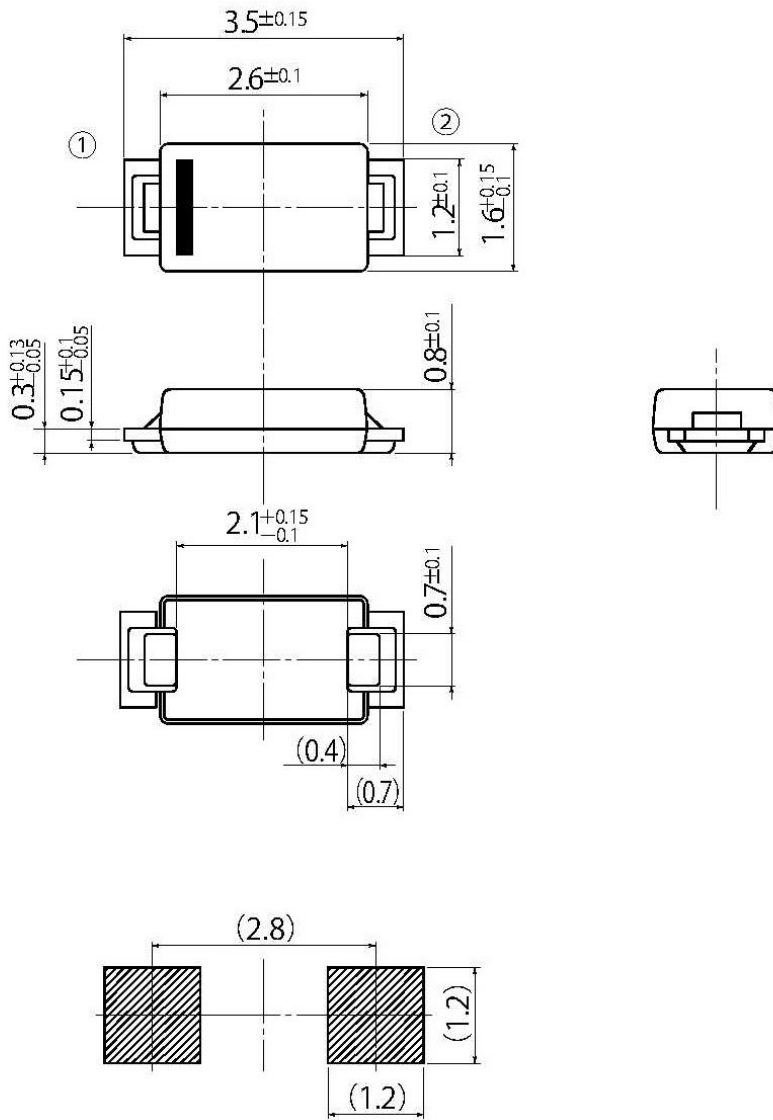
Type	Glass-epoxy
Size	1 inch ²
Thickness	1mm
Conductor thickness	35 μm
Pattern area	160mm ²

TI 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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