

ST02-47G1

TVS
3.0A, 195W

Feature

- Peak pulse power:195W
- Ultra-small SMD
- Available for automotive use
- 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	IRSM	10/1000µs, Non-repetitive ※	3	A
Maximum surge reverse power	PRSM	10/1000µs, Non-repetitive ※	195	W
Continuous (direct) reverse voltage	VR(DC)		37	V

※ :See the original Specifications

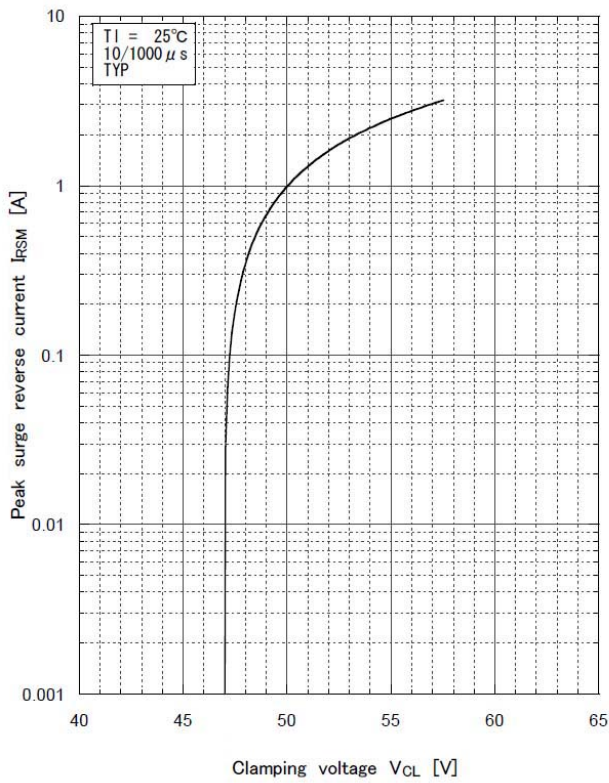
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	VBR	IR=2mA, Pulse measurement	42		52	V
Reverse current	IR	VR=37.0V, 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

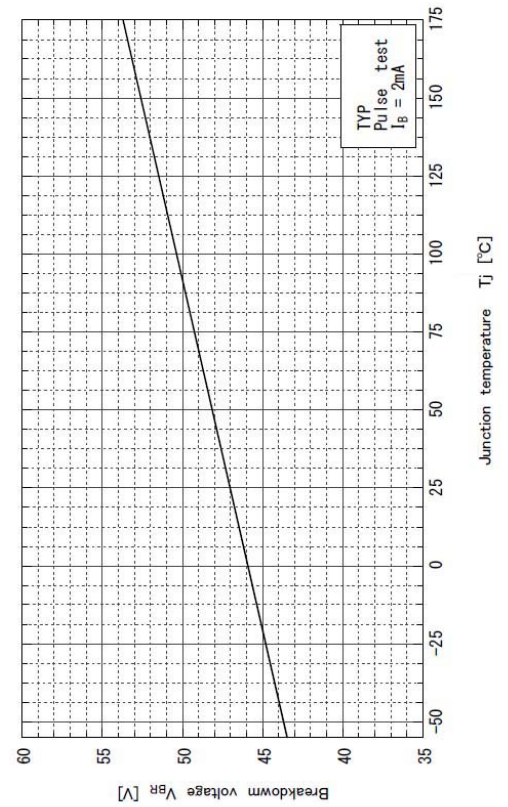
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

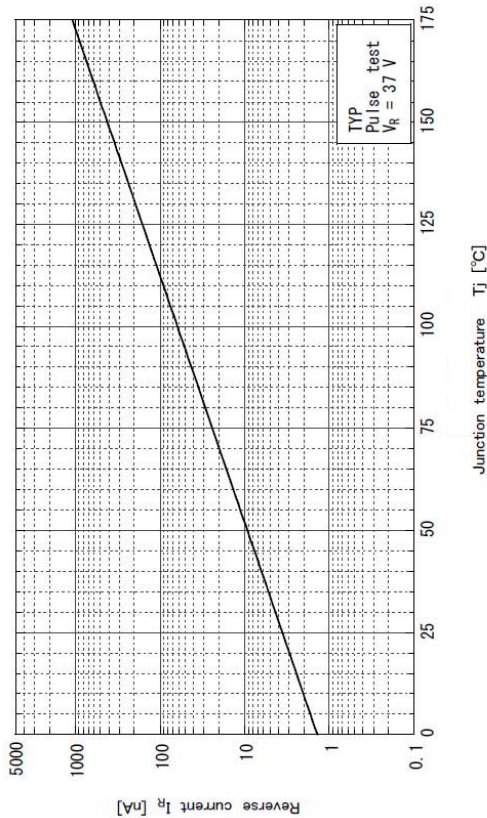
Peak surge reverse current vs Clamping voltage



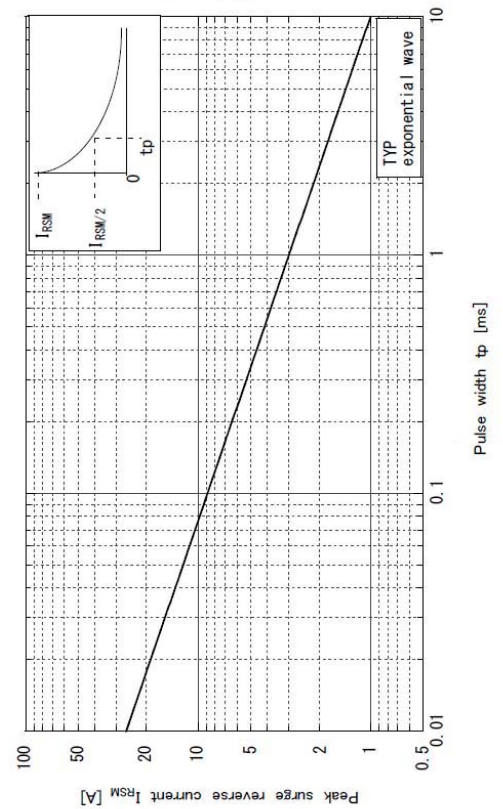
Breakdown voltage vs Junction temperature



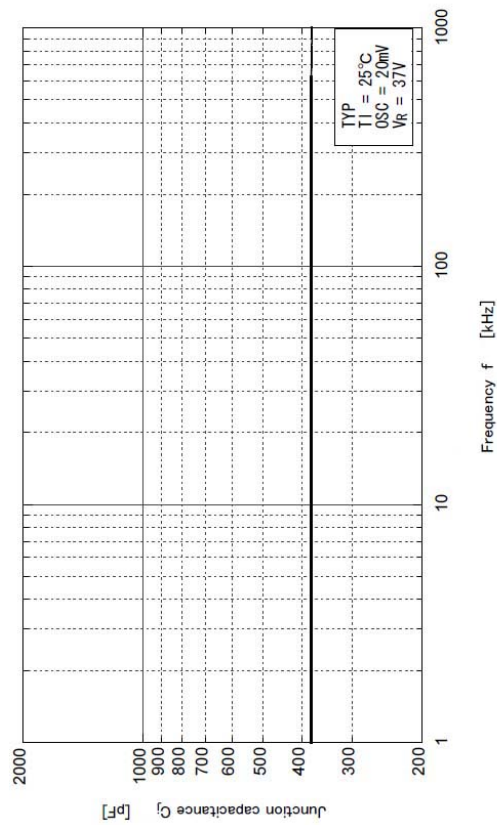
Reverse current vs Junction temperature



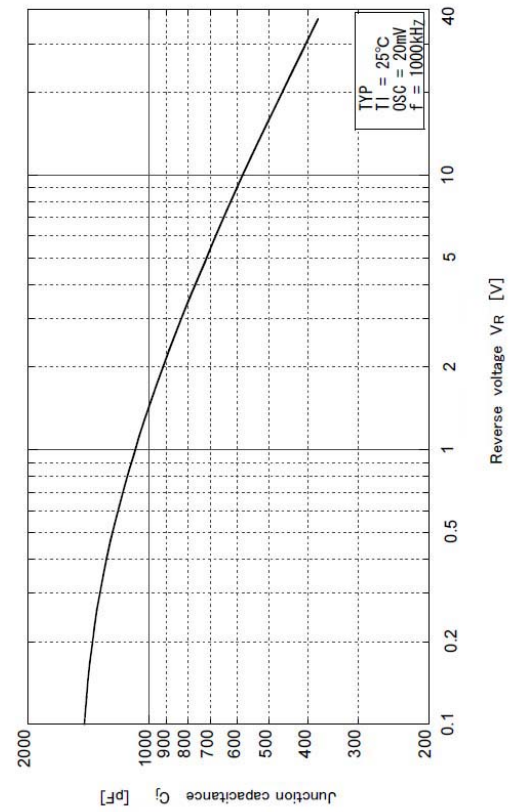
Peak surge reverse current



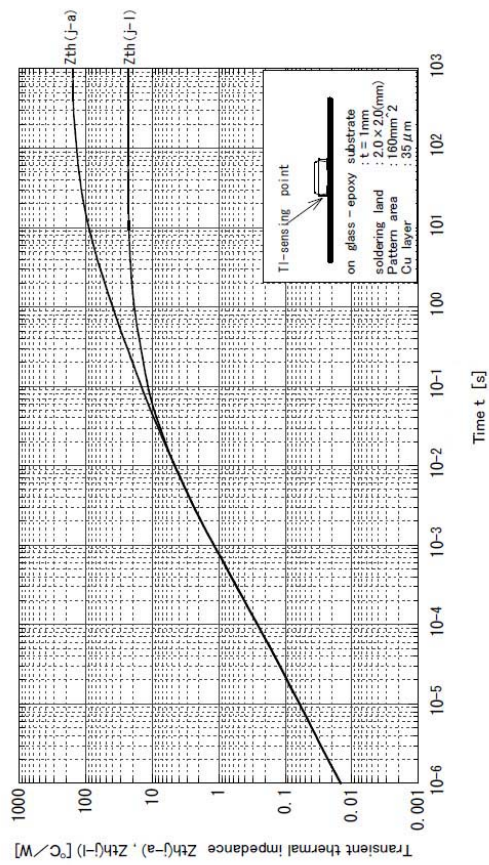
Junction capacitance



Junction capacitance

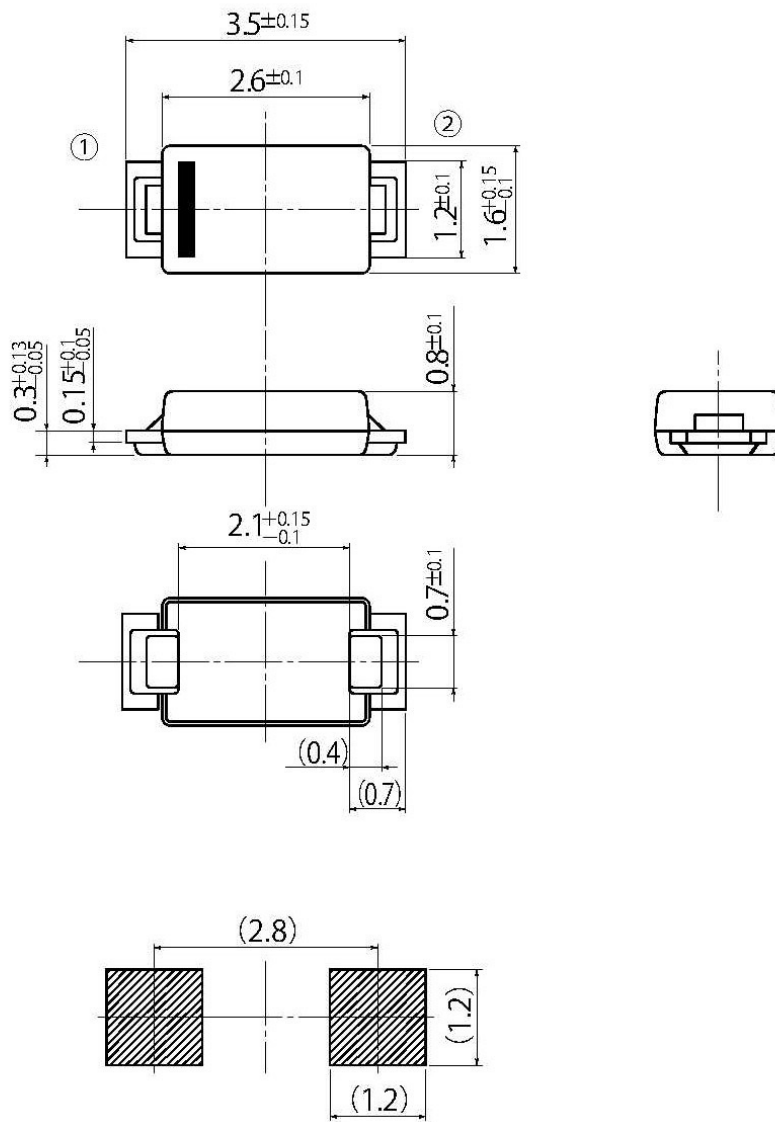


Transient thermal impedance



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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