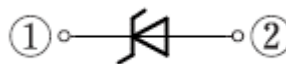


ST03-47F1**TVS****5.0A, 300W****Feature**

- Peak pulse power:300W
- Small SMD
- Based on AEC-Q101
- 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 _{stg}		-55 to 175	°C
Operating junction temperature	T _j		-55 to 150	°C
Maximum surge reverse current	I _{RSM}	10/1000μs, Non-repetitive, Exponential wave ※	5	A
Maximum surge reverse power	P _{RSM}	10/1000μs, Non-repetitive ※	300	W
Continuous (direct) reverse voltage	V _{R(DC)}		37	V

※ : See the original Specifications

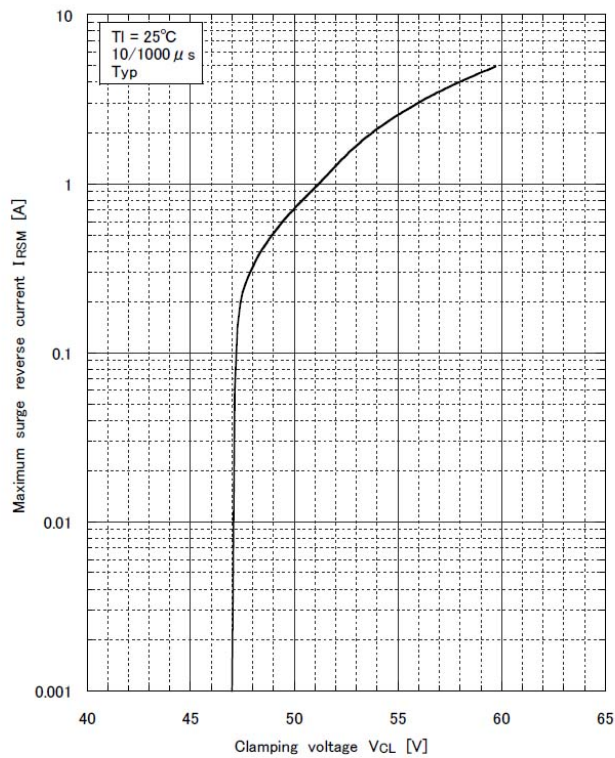
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	V _{BR}	IR=1mA, Pulse measurement	42	47	52	V
Reverse current	I _R	VR=37V, Pulse measurement			5	μA
Electrostatic discharge capability	V _{ESD}	C=330pF, R=330Ω, Polarity±, Aerial discharge ※		30		kV
Thermal resistance	R _{th(j-l)}	Junction to lead, On glass-epoxy substrate ※			23	°C/W
Thermal resistance	R _{th(j-a)}	Junction to ambient, On glass-epoxy substrate ※			157	°C/W

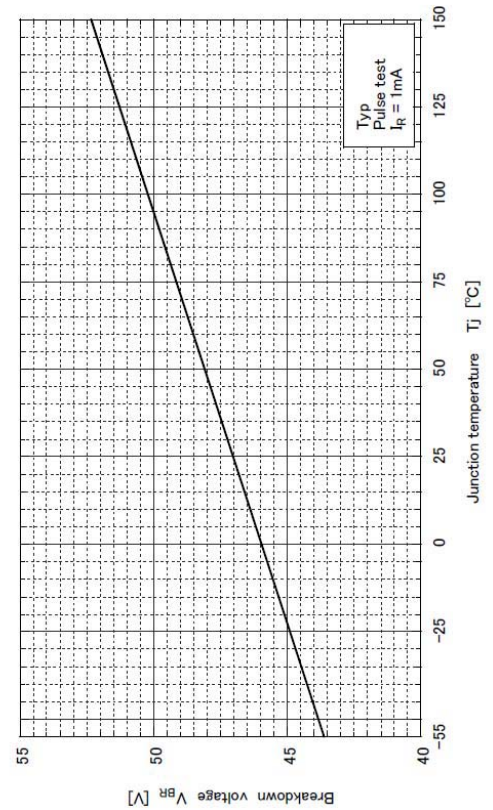
※ : See the original Specifications

CHARACTERISTIC DIAGRAMS

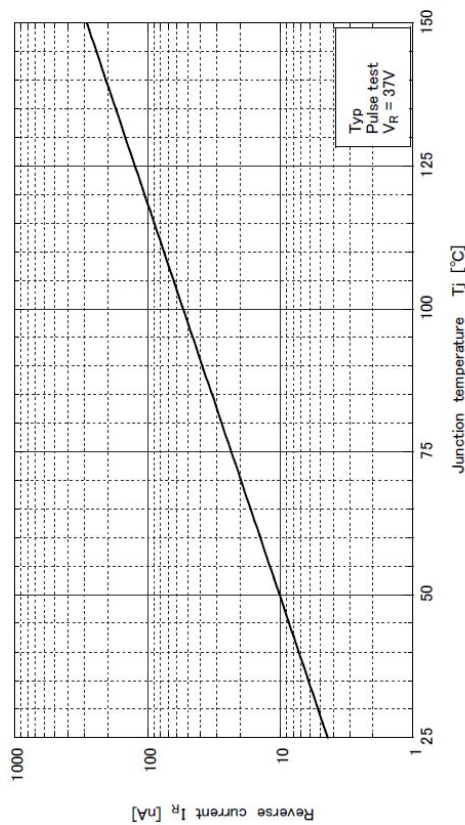
Maximum surge reverse current vs Clamping voltage



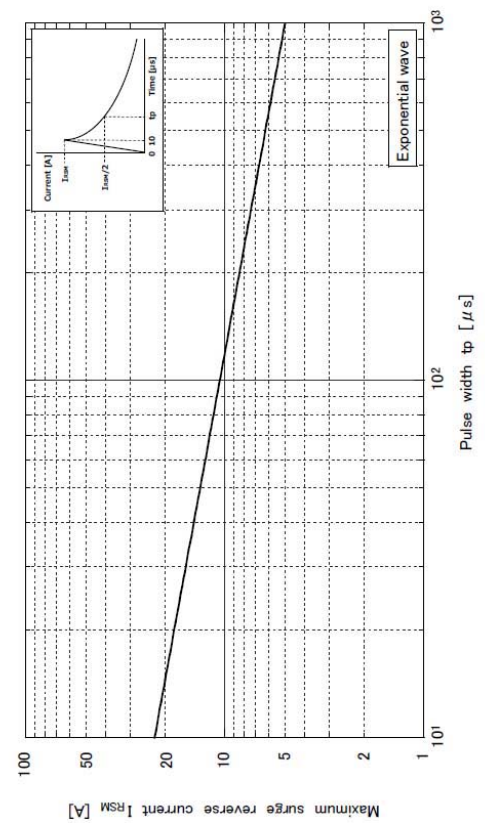
Breakdown voltage vs Junction temperature



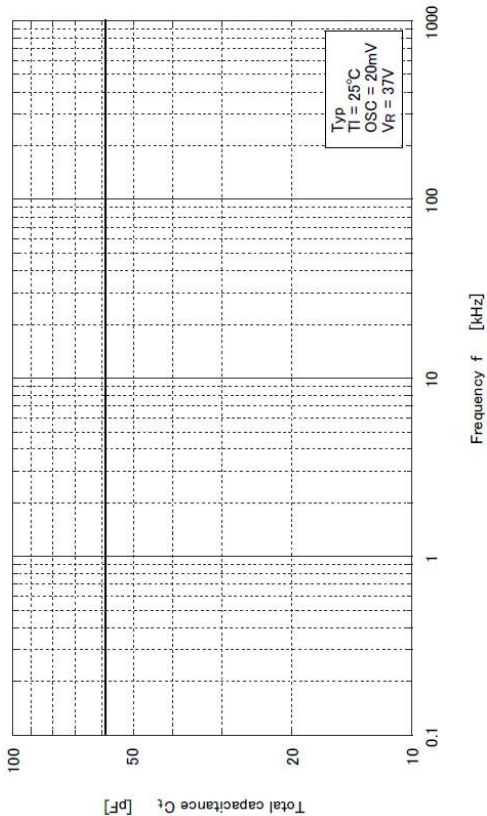
Reverse current vs Junction temperature



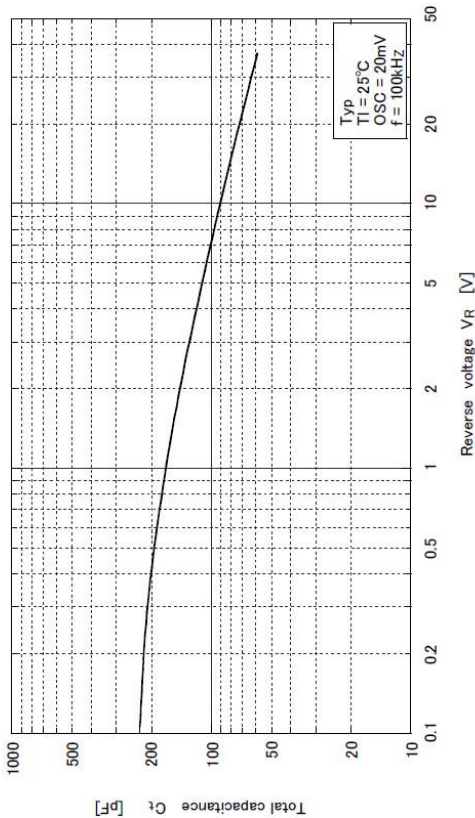
Maximum surge reverse current vs Pulse width



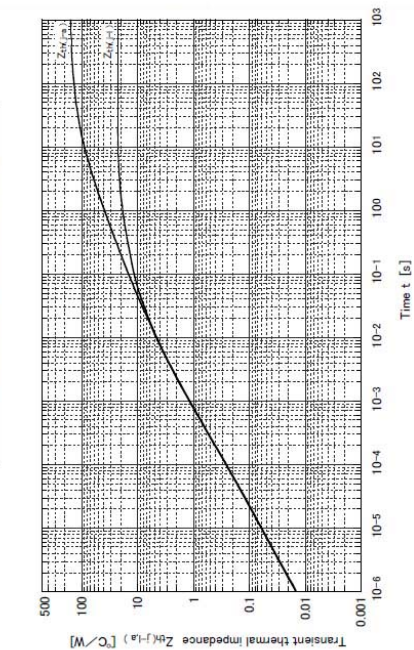
Total capacitance vs Frequency



Total capacitance vs Reverse voltage



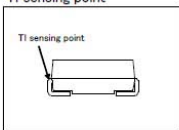
Transient thermal impedance vs Time



Substrate detail

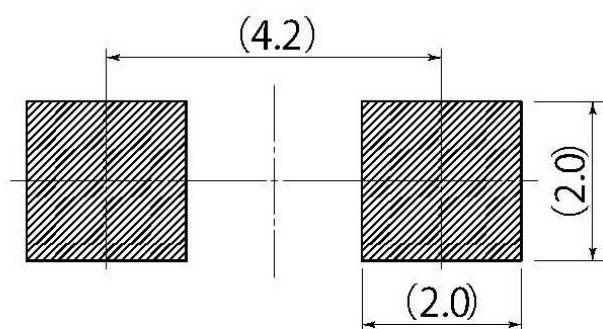
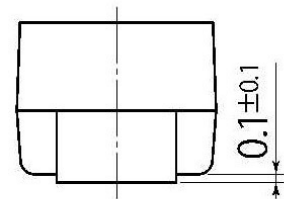
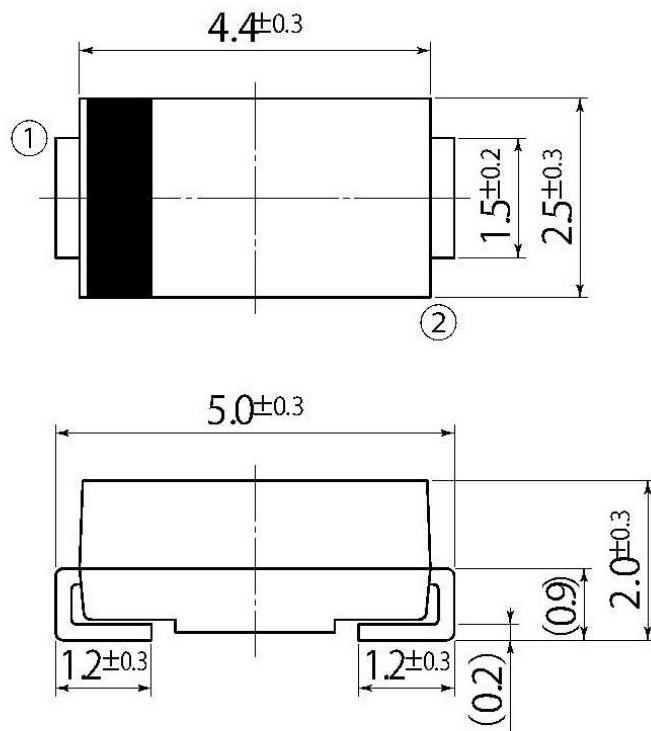
Type	Glass/epoxy
Size	1 inch ²
Thickness	1mm
Conductor thickness	35μm
Pattern area	478mm ²

TI 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.

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