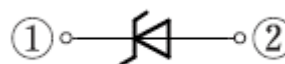


ST20-27F2**TVS****54A, 2000W****Feature**

- Peak pulse power:2000W
- SMD
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

OUTLINE**Package (House Name): 2F****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 175	°C
Maximum surge reverse current	I _{RSM}	10/1000μs, Non-repetitive, Exponential wave ※	54	A
Maximum surge reverse power	P _{RSM}	10/1000μs, Non-repetitive ※	2000	W
Continuous (direct) reverse voltage	V _{R(DC)}		23	V

※ :See the original Specifications

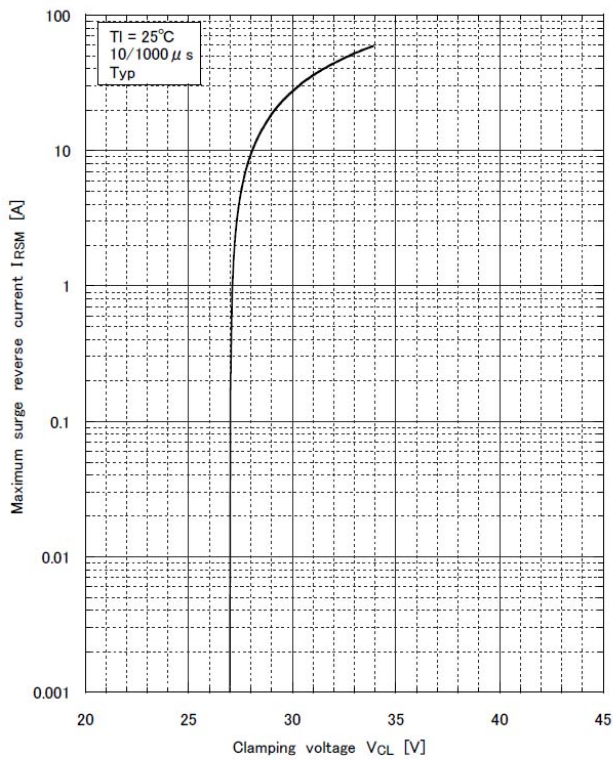
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	V _{BR}	IR=1mA, Pulse measurement	24.3	27	29.7	V
Reverse current	I _R	VR=23V, Pulse measurement			5	μA
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 ※			115	°C/W
Restriction voltage	V _{CL}	10/1000μs, IRSM=54A ※			37	V
Temperature coefficient	rz				0.12	%/°C

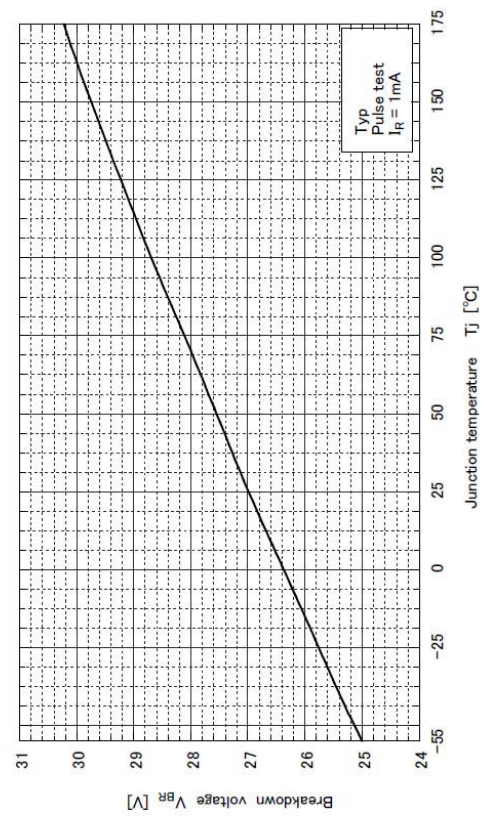
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

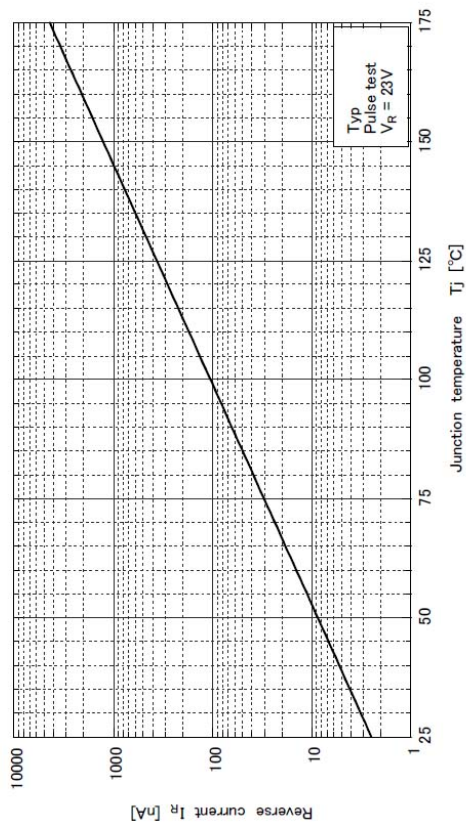
Maximum surge reverse current vs Clamping voltage



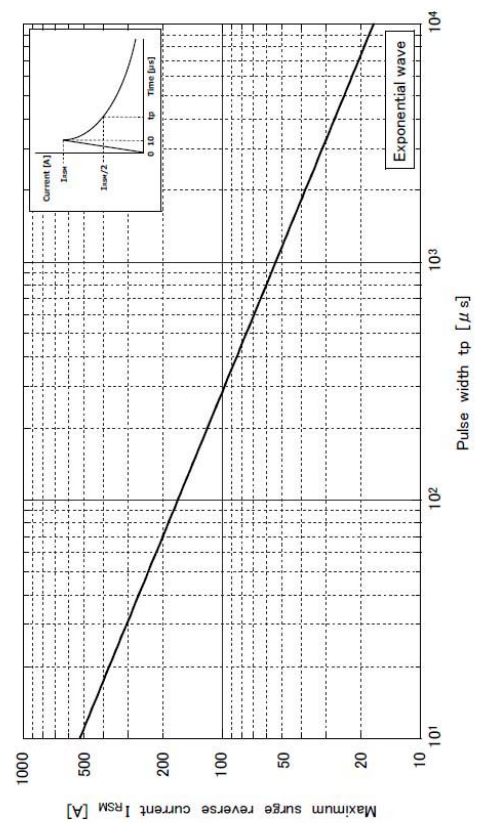
Breakdown voltage vs Junction temperature



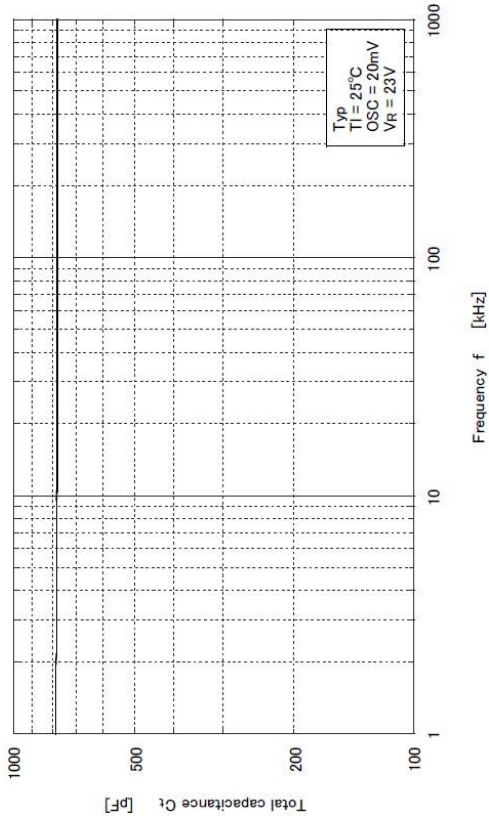
Reverse current vs Junction temperature



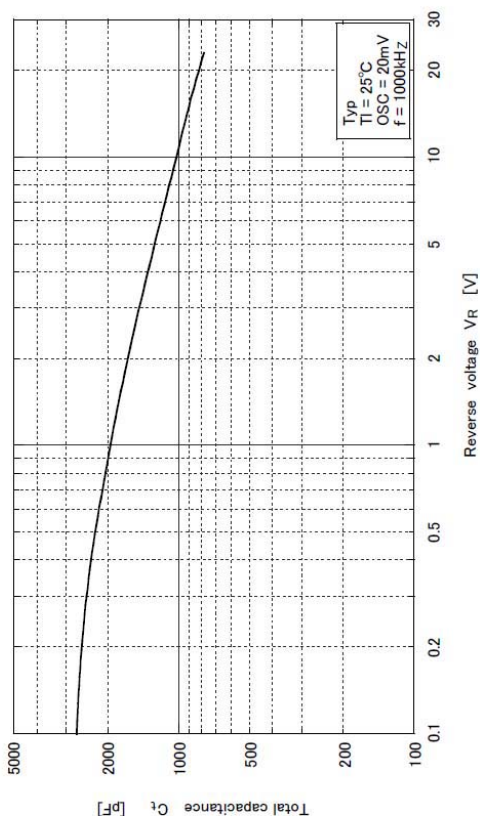
Maximum surge reverse current vs Pulse width



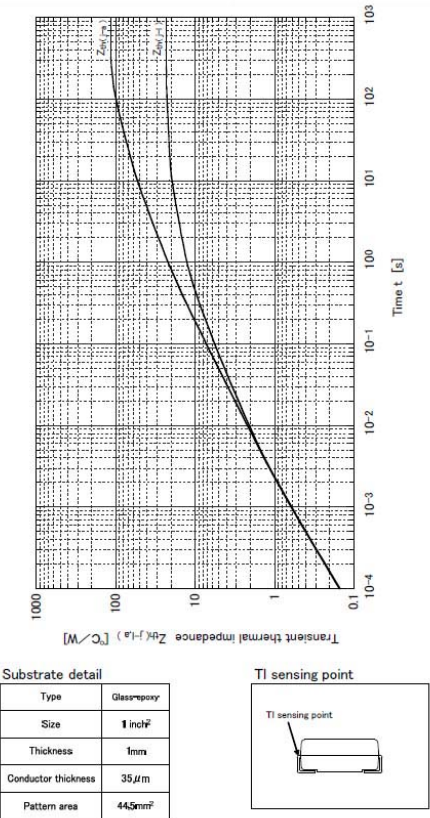
Total capacitance vs Frequency



Total capacitance vs Reverse voltage

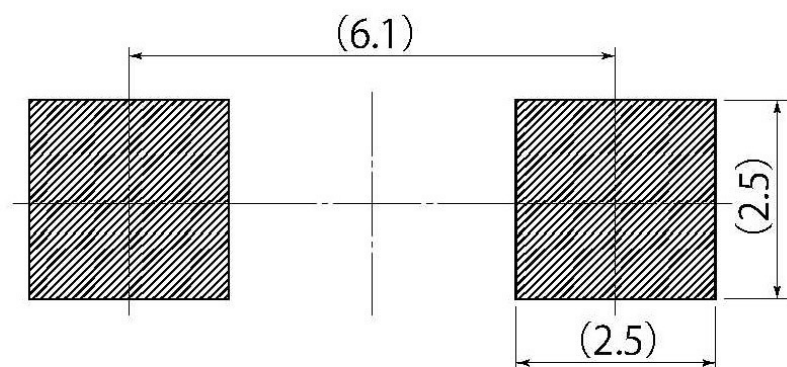
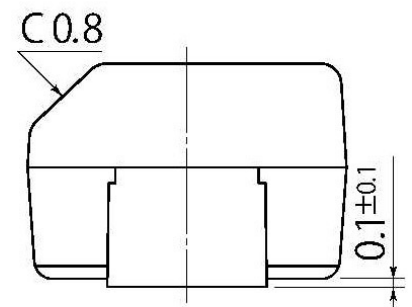
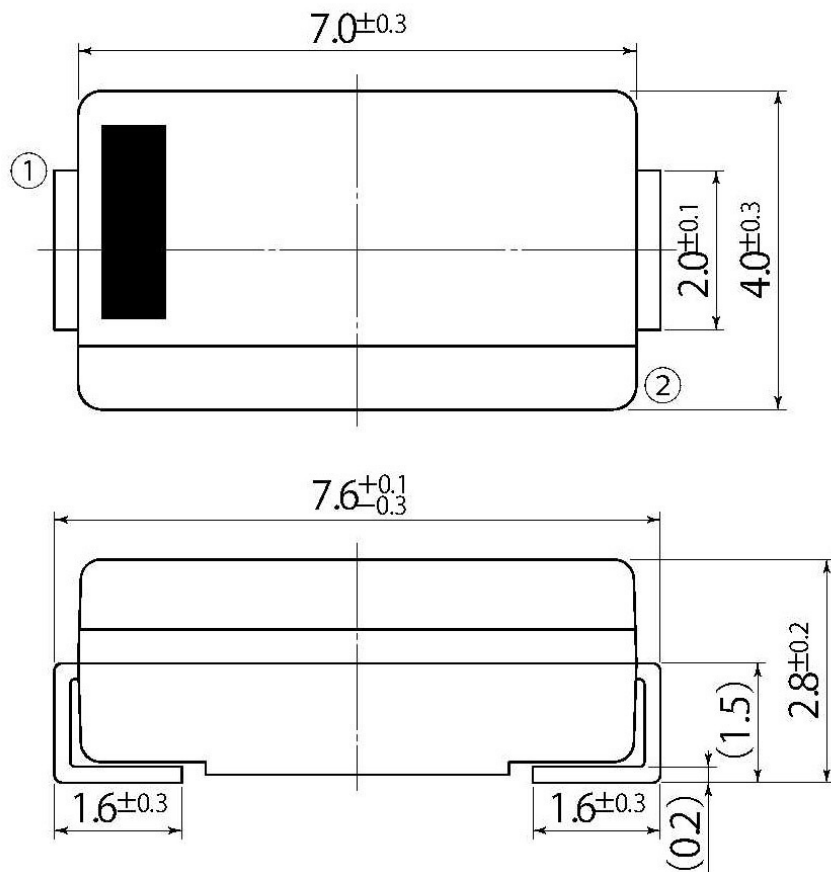


Transient thermal impedance vs Time



B10

JEDEC Code	—
JEITA Code	—
House Name	2F



Referential Soldering Pad

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

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