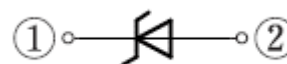


ST20-33F2**TVS****45A, 2000W****Feature**

- 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 ※	45	A
Maximum surge reverse power	P _{RSM}	10/1000μs, Non-repetitive ※	2000	W
Continuous (direct) reverse voltage	V _{R(DC)}		25	V

※ :See the original Specifications

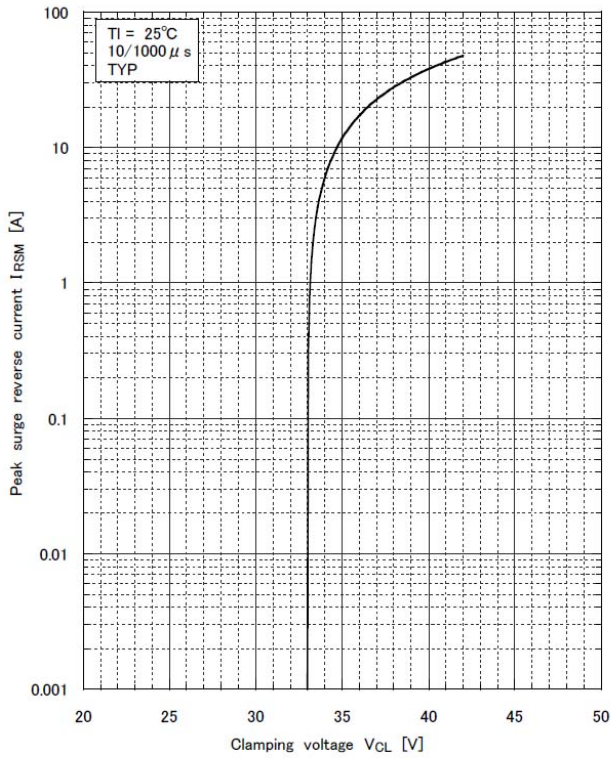
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	V _{BR}	IR=1mA, Pulse measurement	31	33	35	V
Reverse current	I _R	VR=25V, 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=45A ※			45	V
Temperature coefficient	rz				0.12	%/°C

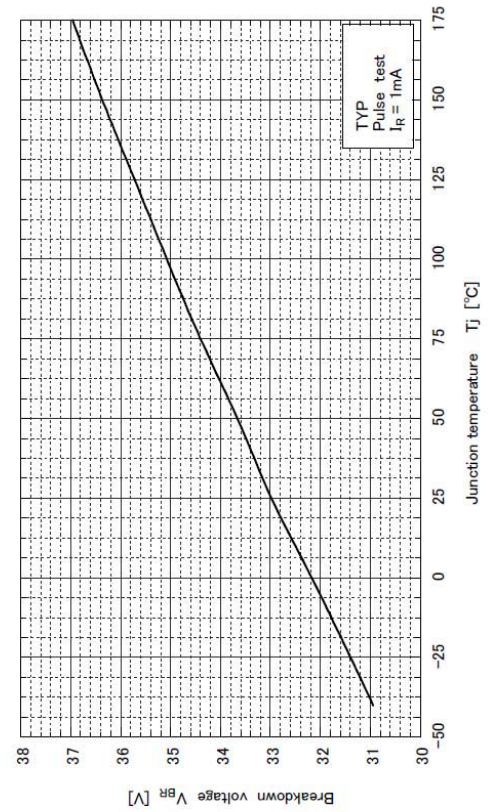
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

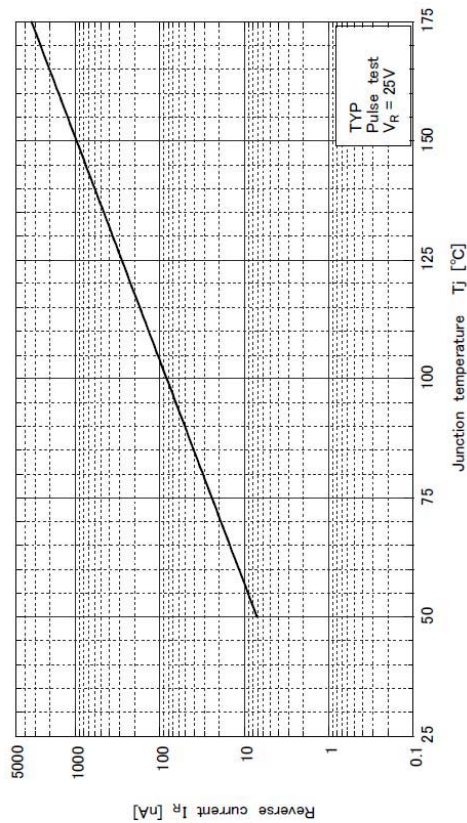
Peak surge reverse current vs Clamping voltage



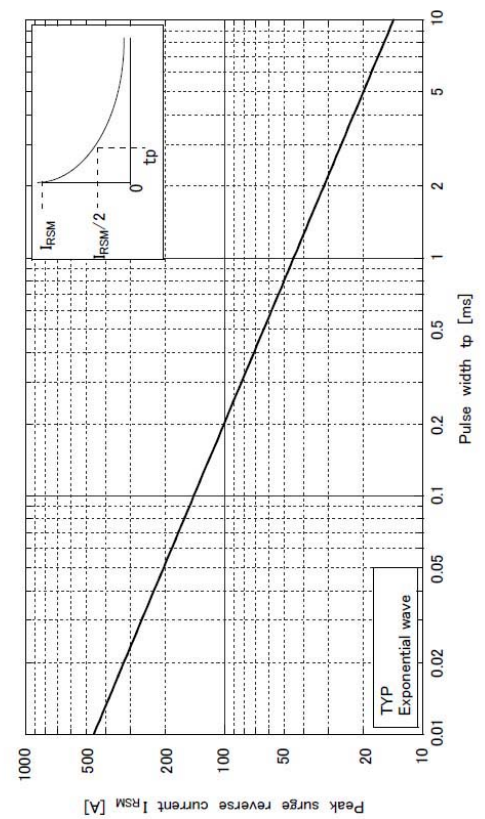
Breakdown voltage vs Junction temperature

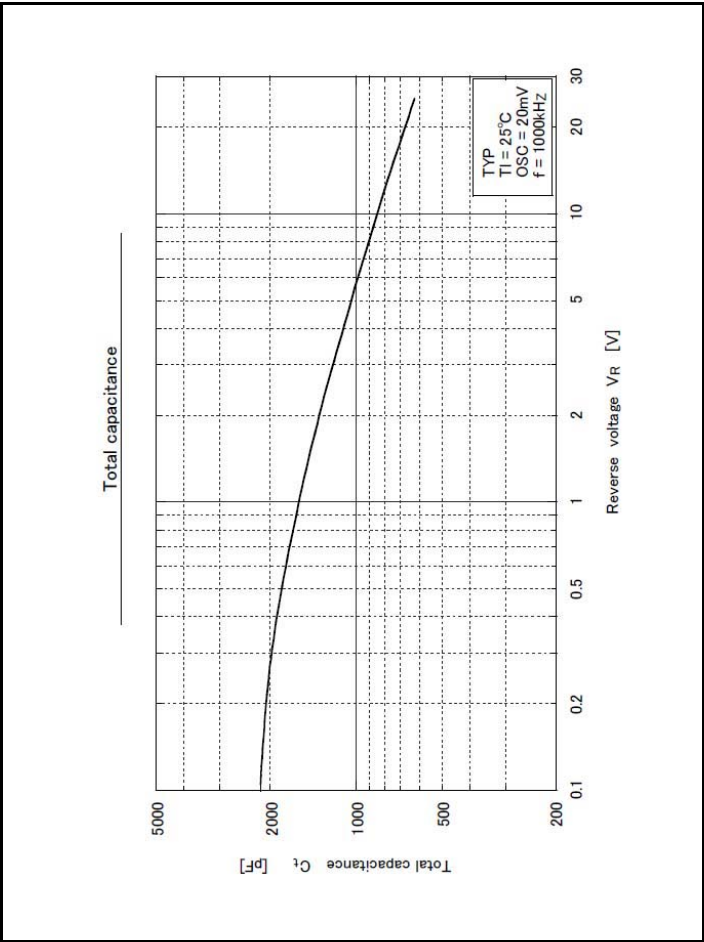
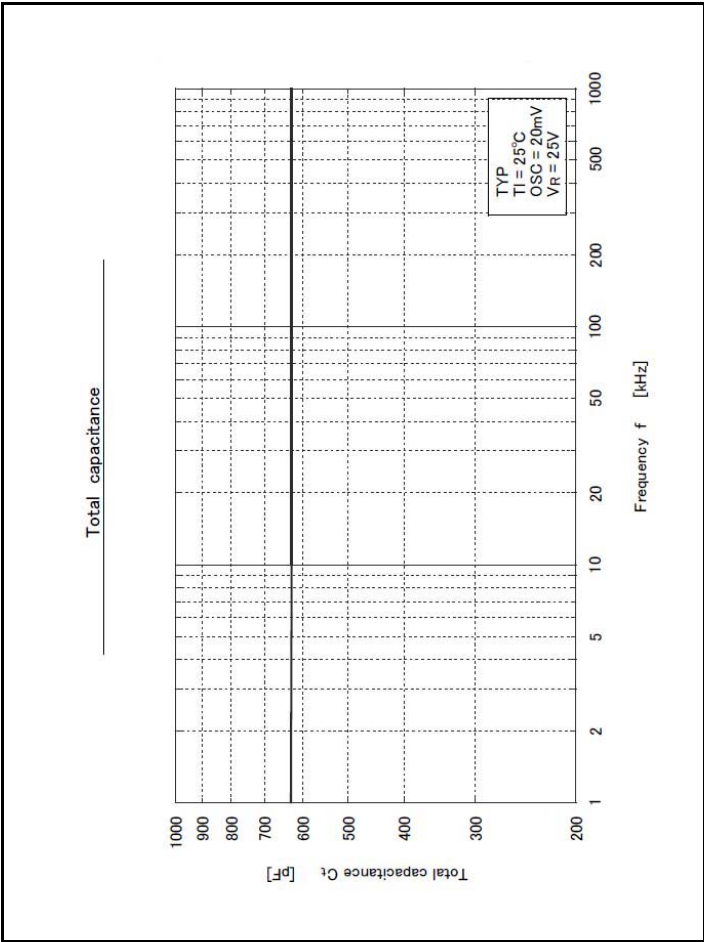
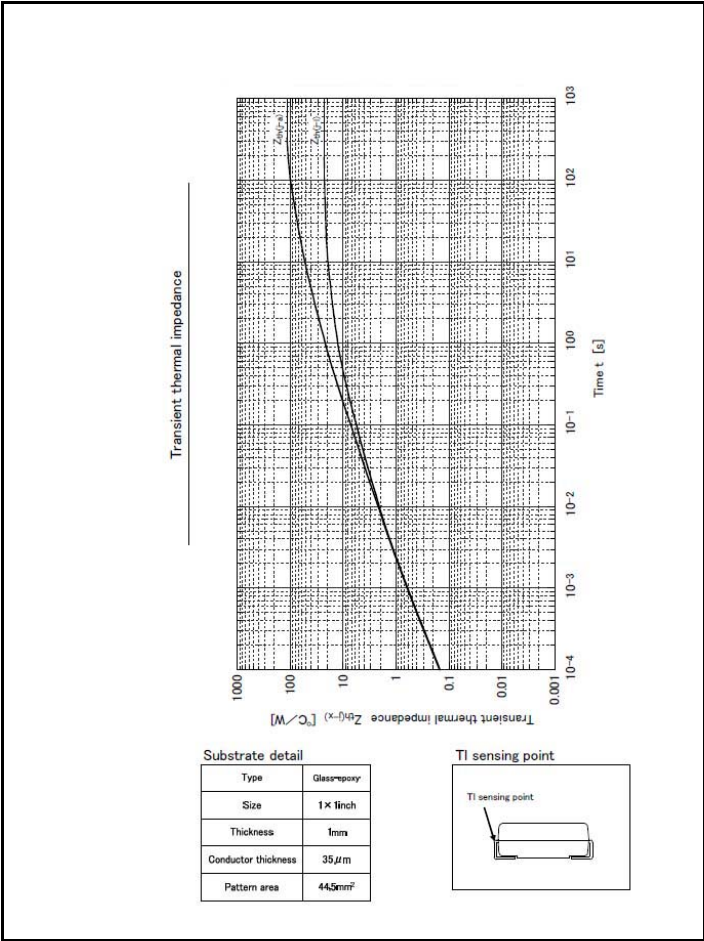


Reverse current vs Junction temperature



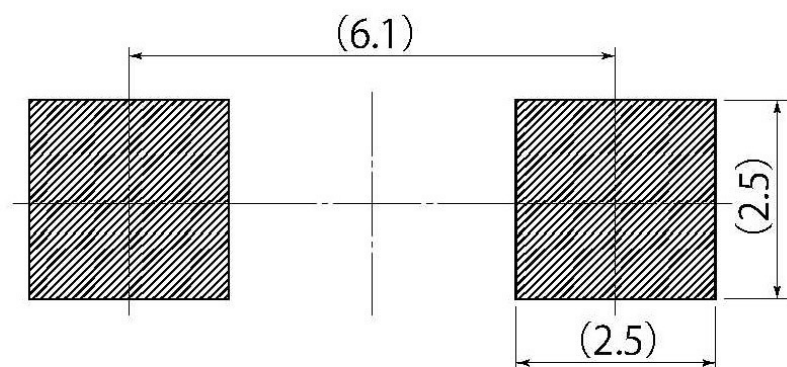
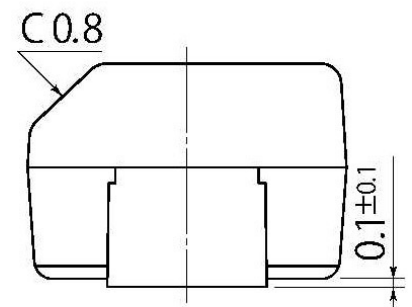
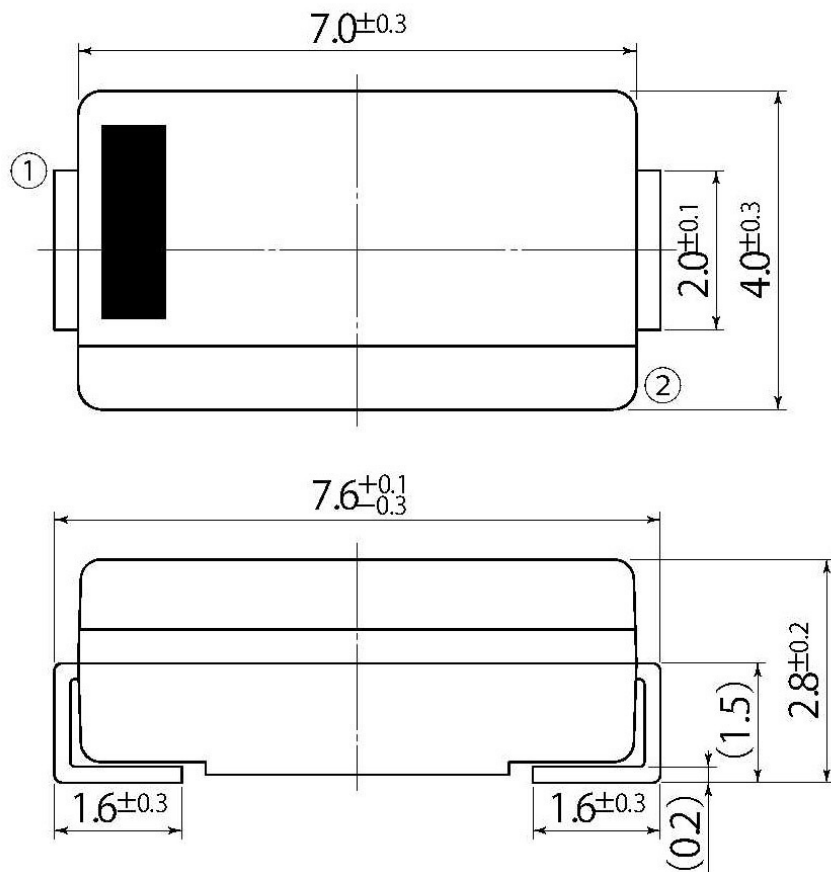
Peak surge reverse current





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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