

# 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 <sub>stg</sub>		-55 to 175	°C
Operating junction temperature	T <sub>j</sub>		-55 to 175	°C
Maximum surge reverse current	I <sub>RSM</sub>	10/1000μs, Non-repetitive *	45	A
Maximum surge reverse power	P <sub>RSM</sub>	10/1000μs, Non-repetitive *	2000	W
Continuous (direct) reverse voltage	V <sub>R(DC)</sub>		25	V

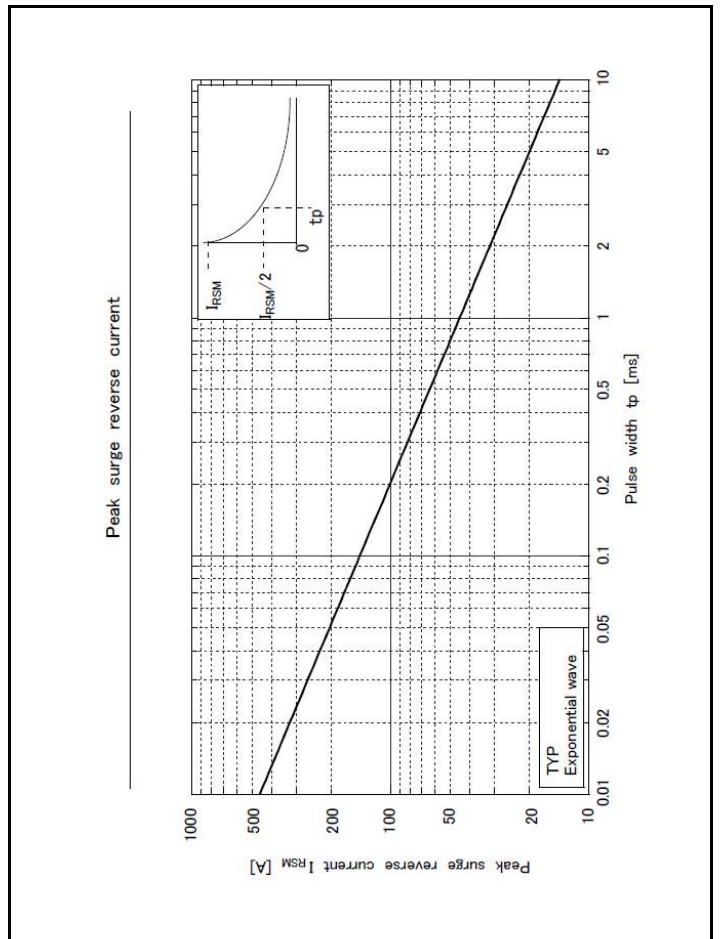
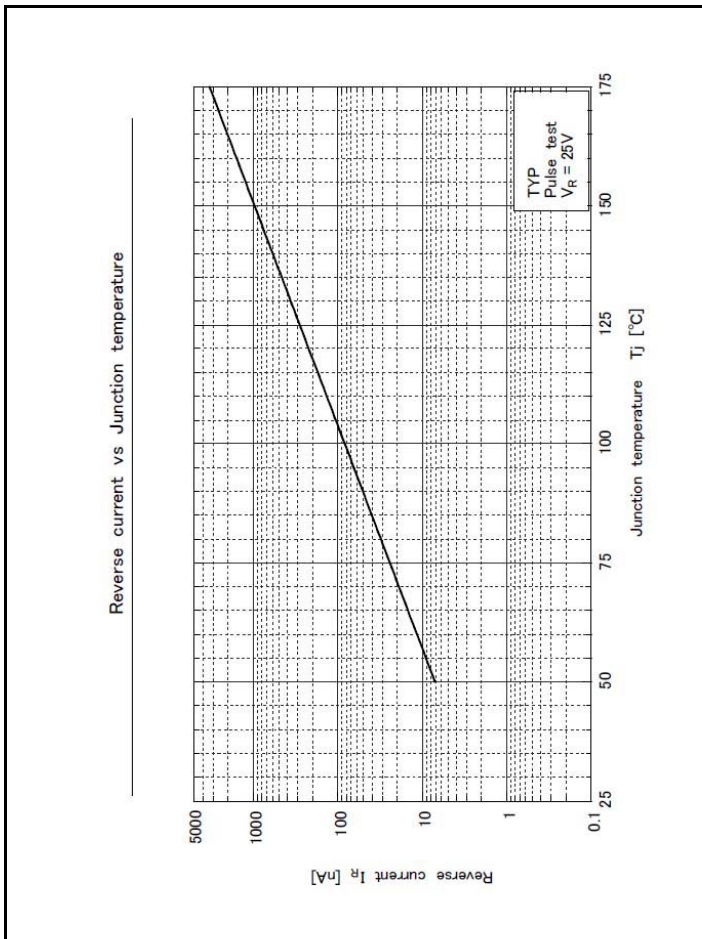
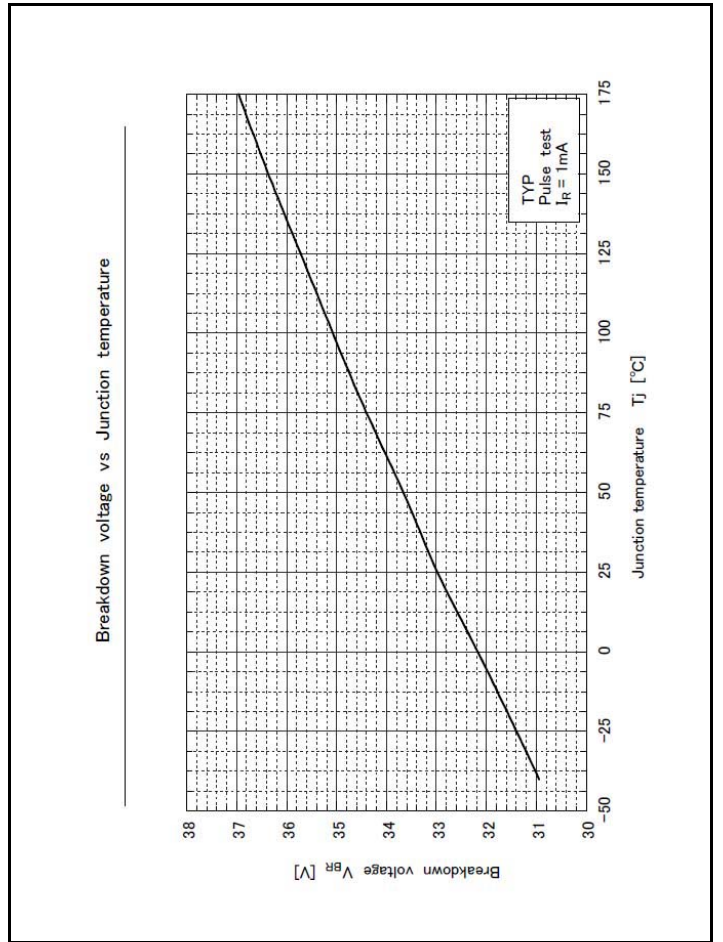
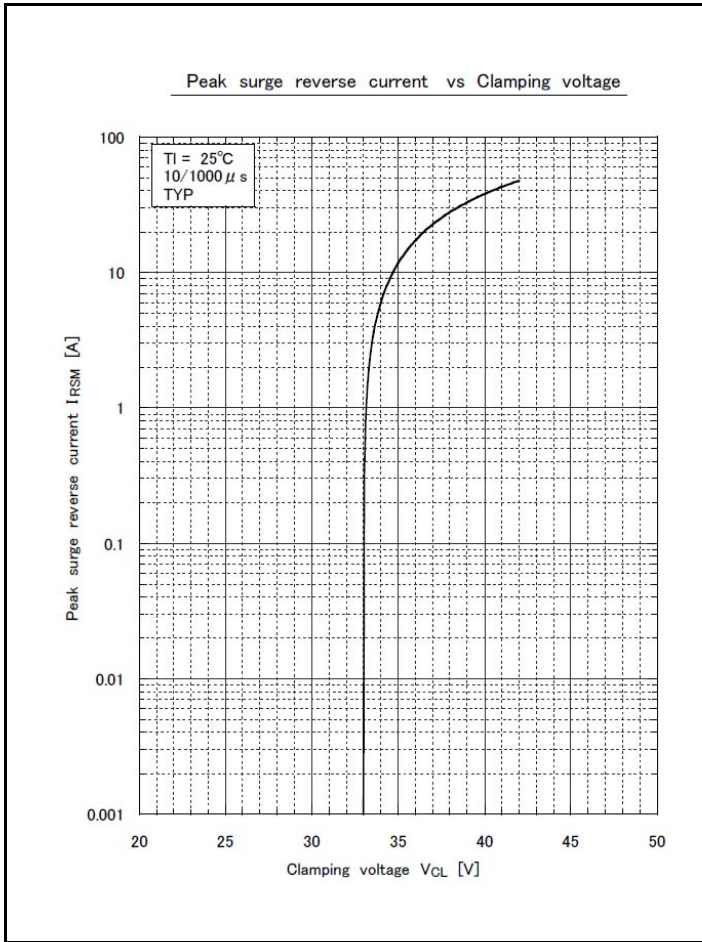
\* :See the original Specifications

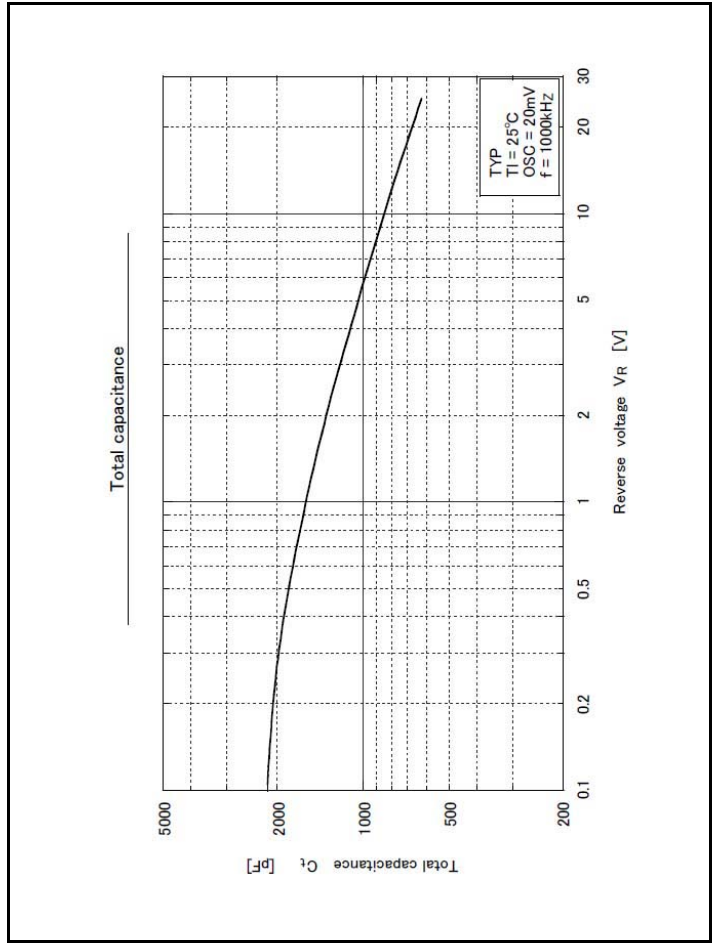
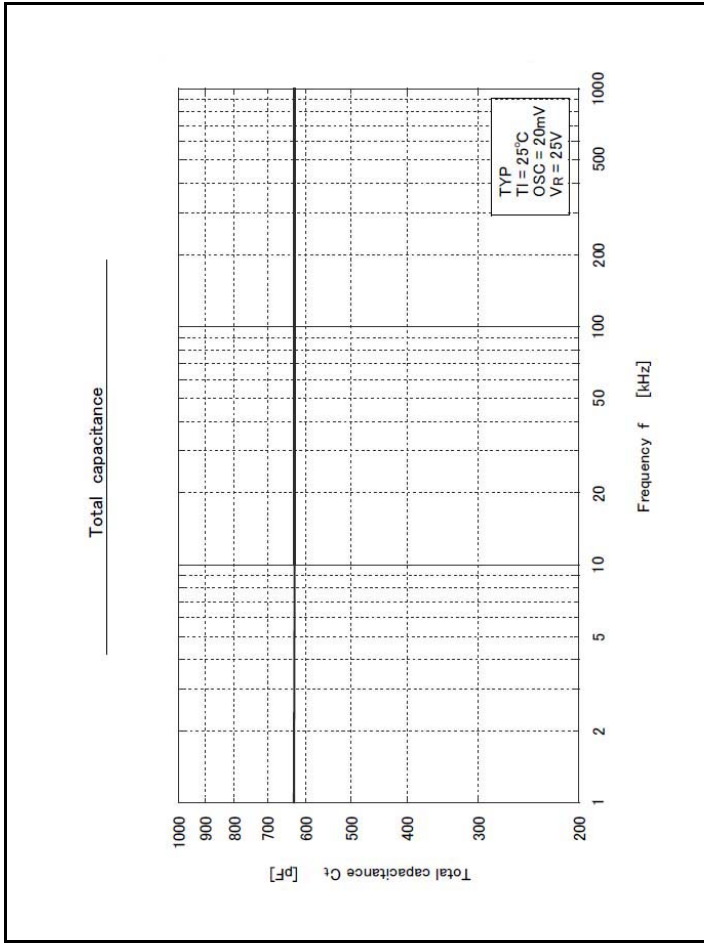
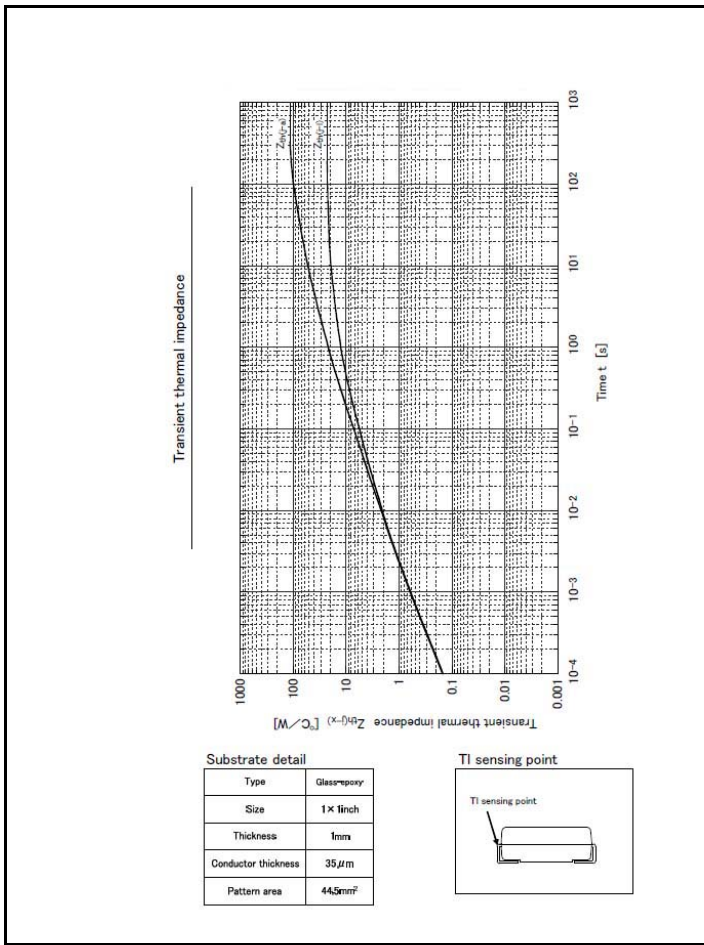
### Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> =1mA, Pulse measurement	31	33	35	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =25V, Pulse measurement			5	μA
Thermal resistance	R <sub>th(j-l)</sub>	Junction to lead, On glass-epoxy substrate *			23	°C/W
Thermal resistance	R <sub>th(j-a)</sub>	Junction to ambient, On glass-epoxy substrate *			115	°C/W
Restriction voltage	V <sub>CL</sub>	10/1000μs, I <sub>RSM</sub> =45A *			45	V
Temperature coefficient	rz				0.12	%/°C

\* :See the original Specifications

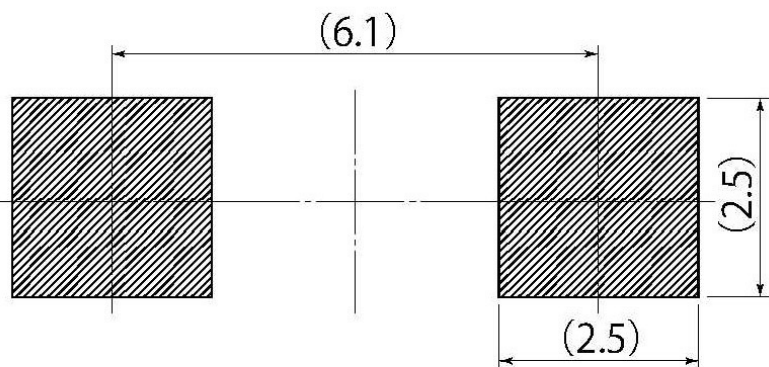
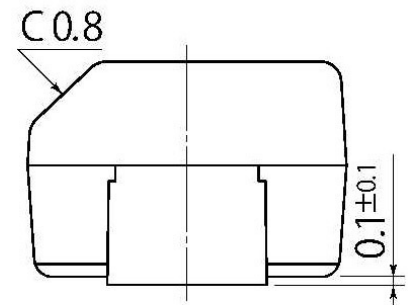
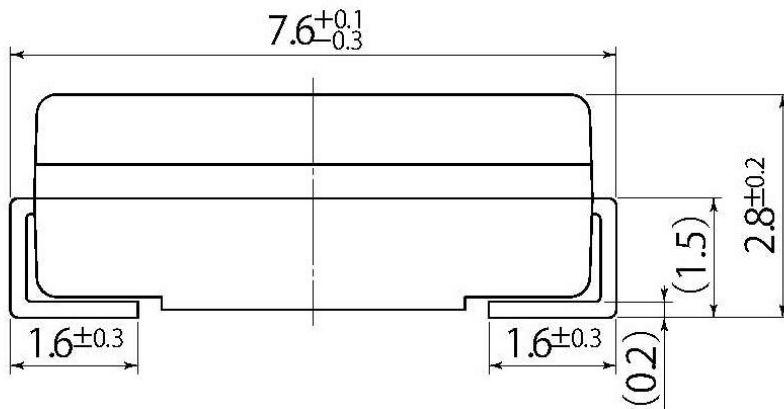
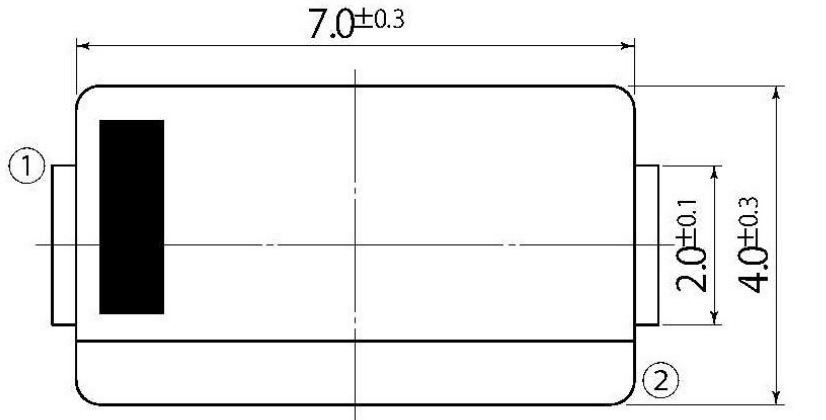
# CHARACTERISTIC DIAGRAMS





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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