

# ST02D-170F2

Power Clampers  
200W, 145V

## Feature

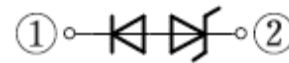
- TVS with FRD
- SMD Package
- Application for snubber circuit
- Pb free terminal
- RoHS:Yes

## OUTLINE

Package (House Name): 2F



## Equivalent circuit



## Absolute Maximum Ratings (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	Tstg		-40 to 150	°C
Operating junction temperature	Tj		150	°C
Maximum surge reverse power(ZD)	P <sub>RSM</sub> (ZD)	10/1000μs, Non-repetitive	200	W
Maximum surge reverse current(ZD)	I <sub>RSM</sub> (ZD)	10/1000μs, Non-repetitive	0.75	A
Continuous (direct) reverse voltage(ZD)	V <sub>RM(DC)</sub> (ZD)		145	V
Repetitive peak reverse voltage(Di)	V <sub>RRM</sub> (Di)		600	V

※ :See the original Specifications

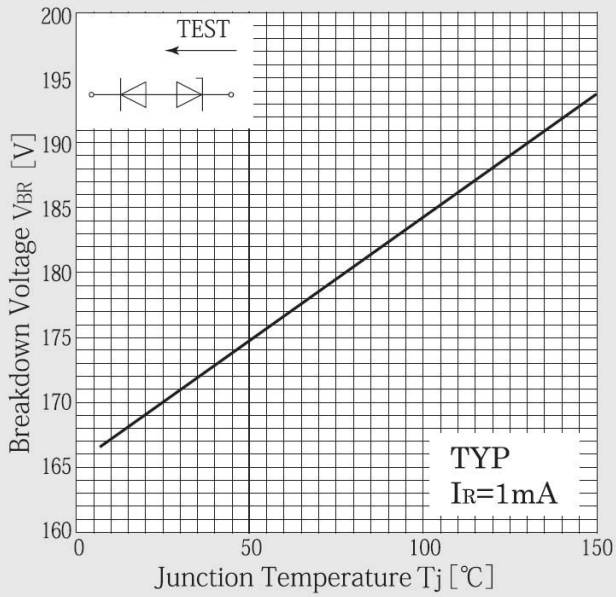
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakdown voltage(ZD)	$V_{BR}(ZD)$	IR=1mA	155	170	185	V
Clamping Voltage(ZD)	$V_{CL}(ZD)$	IPP=0.75A			280	V
Reverse current(ZD)	$I_R(ZD)$	VR=145V			5	$\mu A$
Reverse current(Di)	$I_R(Di)$	VR=600V			5	$\mu A$
Reverse recovery time(Di)	$t_{rr}(Di)$	IF/IR=0.1A/0.3A			500	ns
Thermal resistance	Rth(j-l)	Junction to lead			24	$^{\circ}C/W$
Thermal resistance	Rth(j-a)	Junction to ambient, On glass-epoxy substrate			120	$^{\circ}C/W$
Thermal resistance	Rth(j-a)	Junction to ambient, On alumina substrate			90	$^{\circ}C/W$

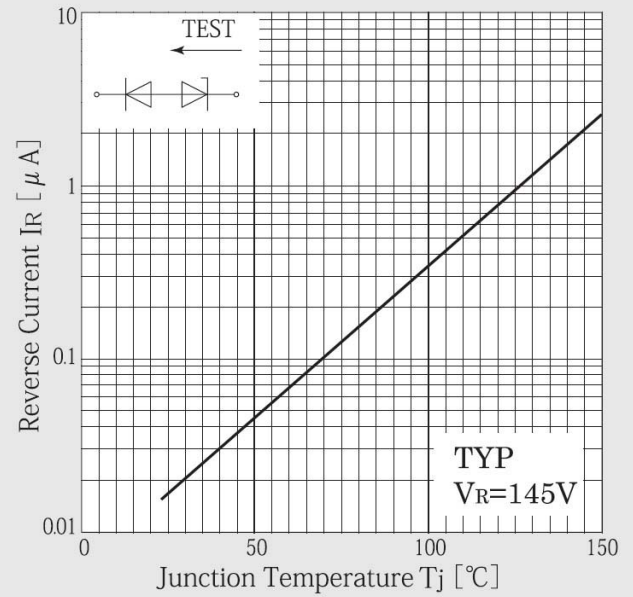
※ : See the original Specifications

# CHARACTERISTIC DIAGRAMS

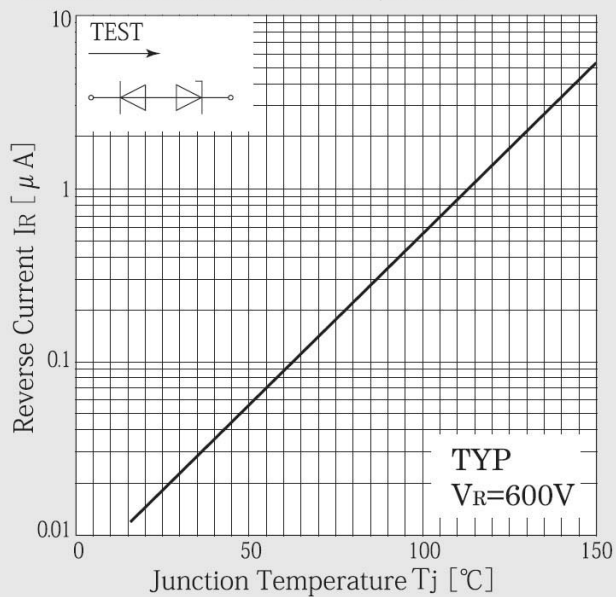
Breakdown Voltage vs Junction Temperature



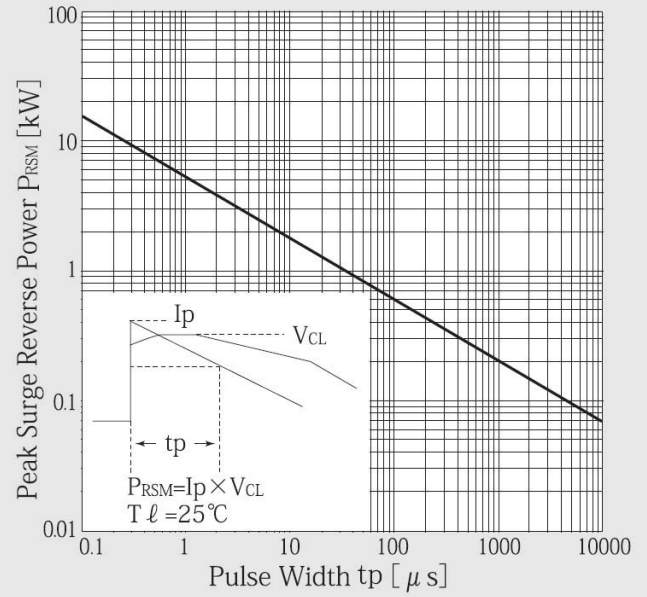
Reverse Current vs Junction Temperature

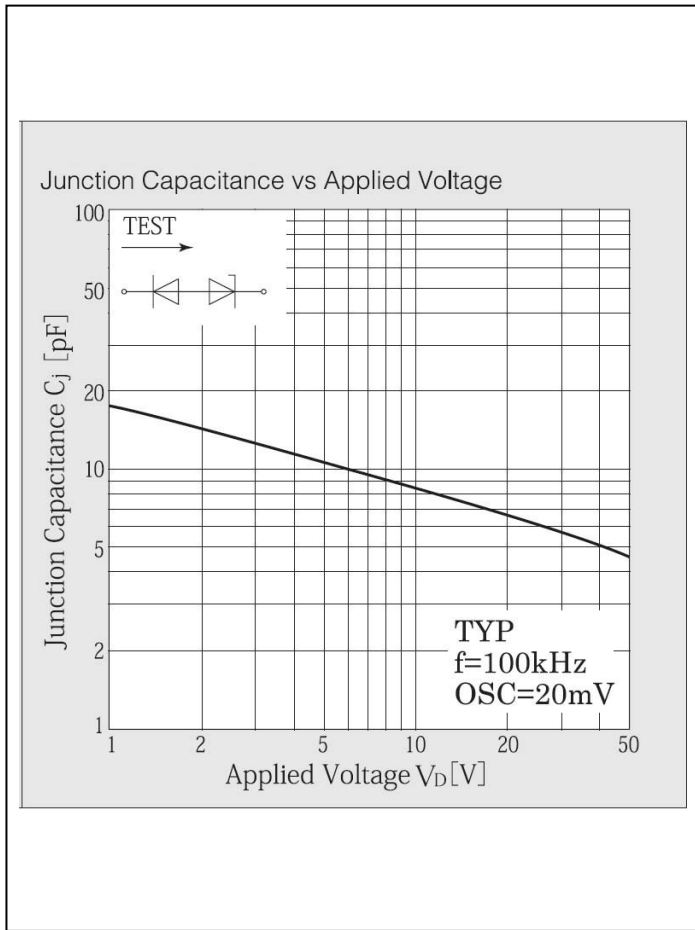
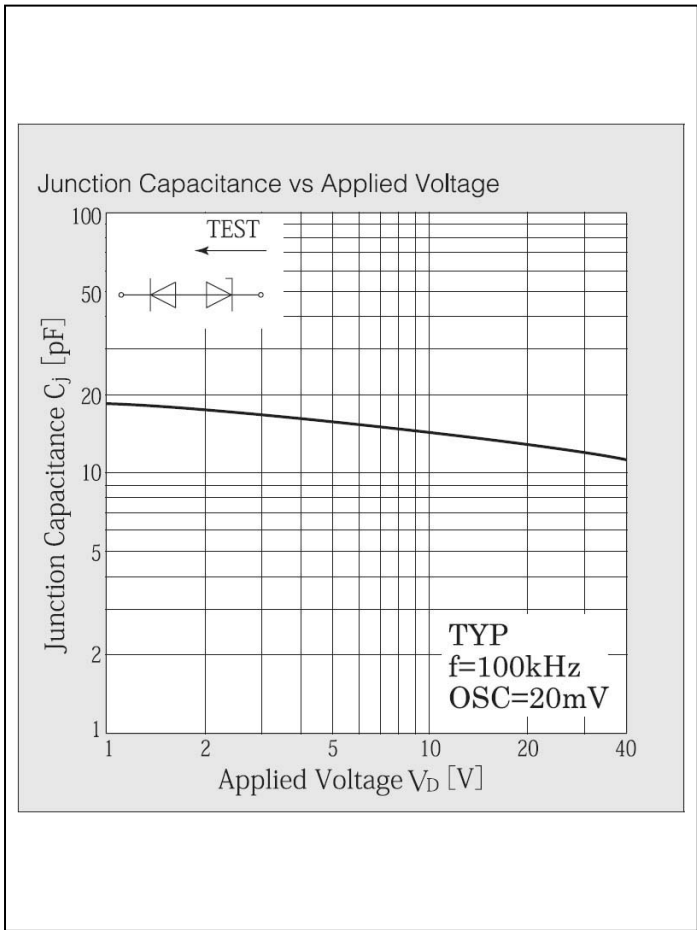
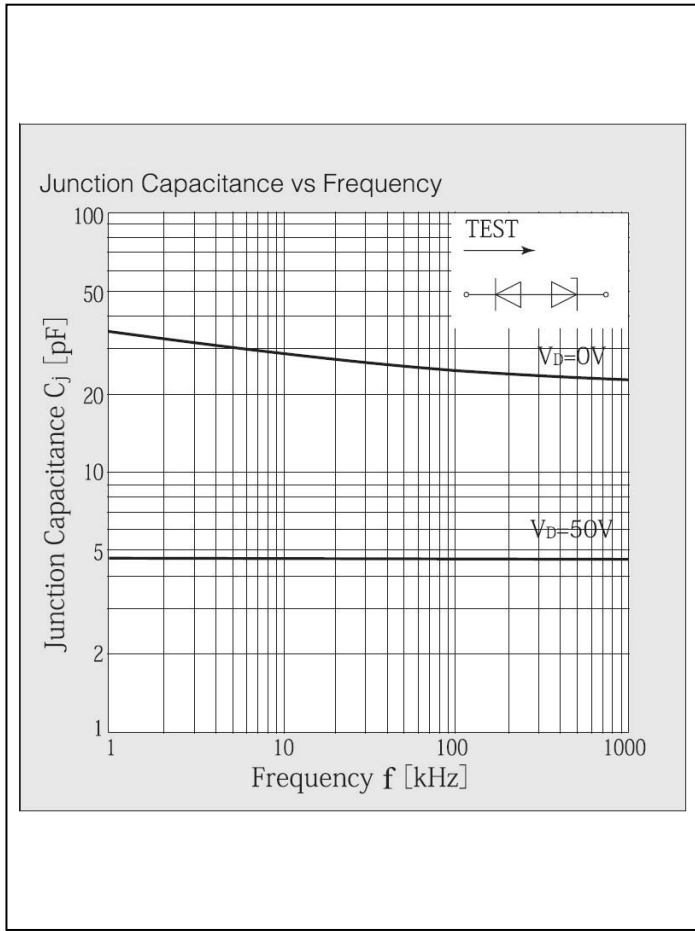
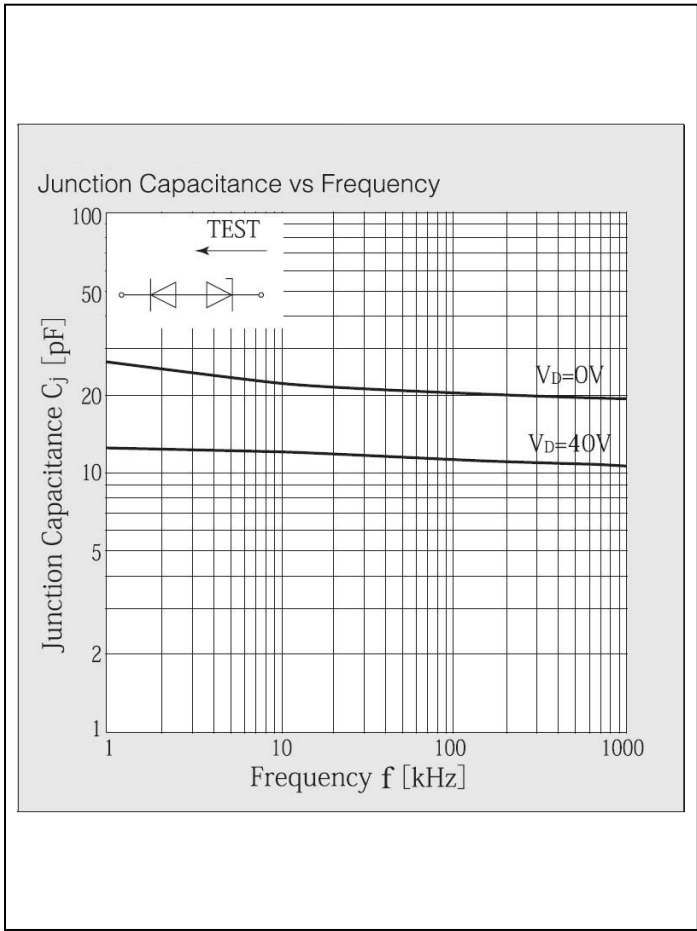


Reverse Current vs Junction Temperature



Peak Surge Reverse Power





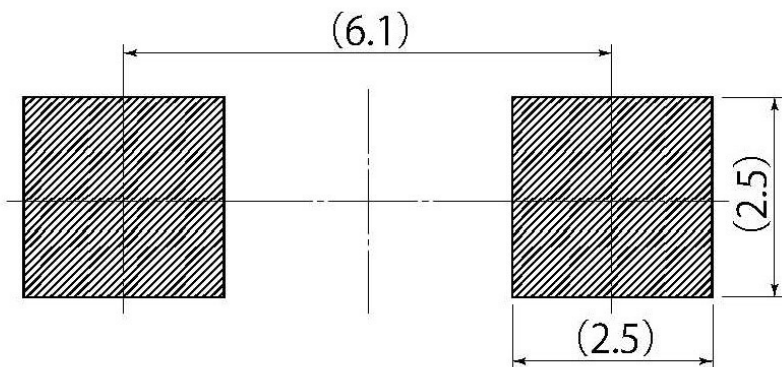
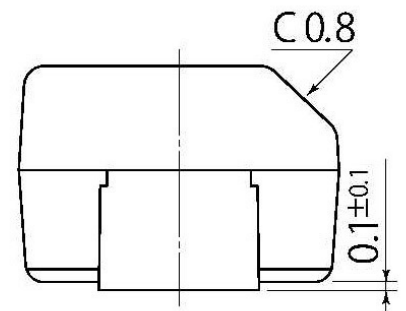
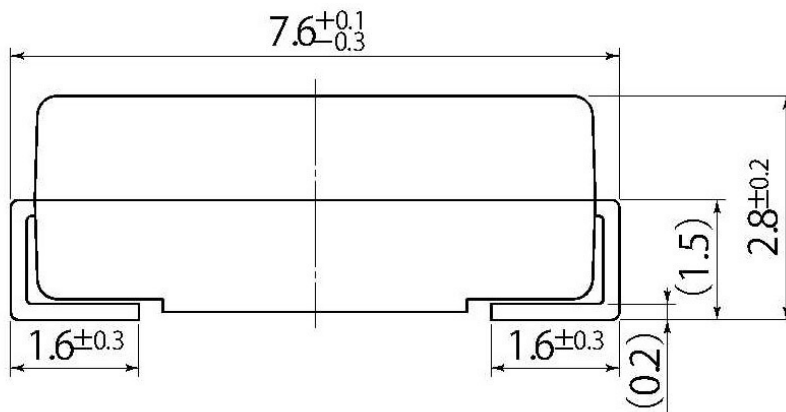
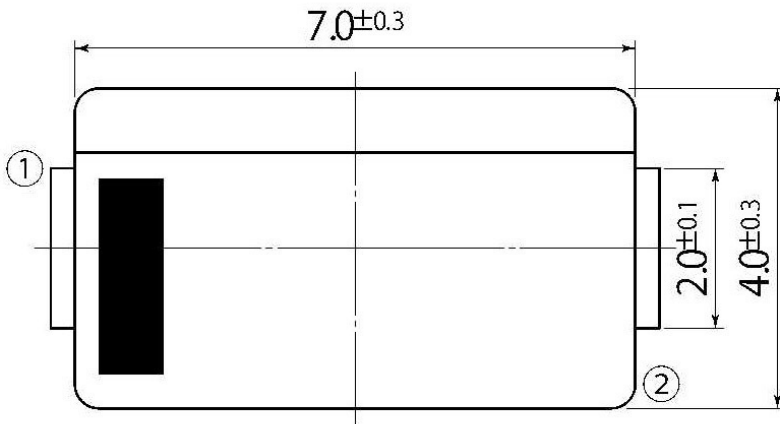
# Outline Dimensions

unit:mm

scale: 10/1

B9

JEDEC Code	—
JEITA Code	—
House Name	2F



Referential Soldering Pad

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

## Notes

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