

# KP40RU22

Thyristor Surge Suppressors  
60V, 500A(@10/700μs)

## Feature

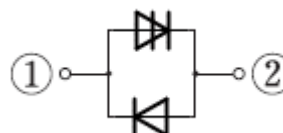
- Uni-Directional
- High-speed response characteristic
- Large surge current capacity
- Pb free terminal
- RoHS:Yes

## 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>		-40 to 125	°C
Junction temperature	T <sub>j</sub>		125	°C
Non-repetitive peak reverse voltage	V <sub>DSM</sub>		180	V
Repetitive peak reverse voltage	V <sub>DRM</sub>		60	V
Peak surge on-state current	I <sub>TSM</sub>	V=10/700μs 20kV, Non-Repetitive, R=15+25Ω	500	A
Peak surge forward current	I <sub>FSM</sub>	V=10/700μs 20kV, Non-Repetitive, R=15+25Ω	500	A

\* : See the original Specifications

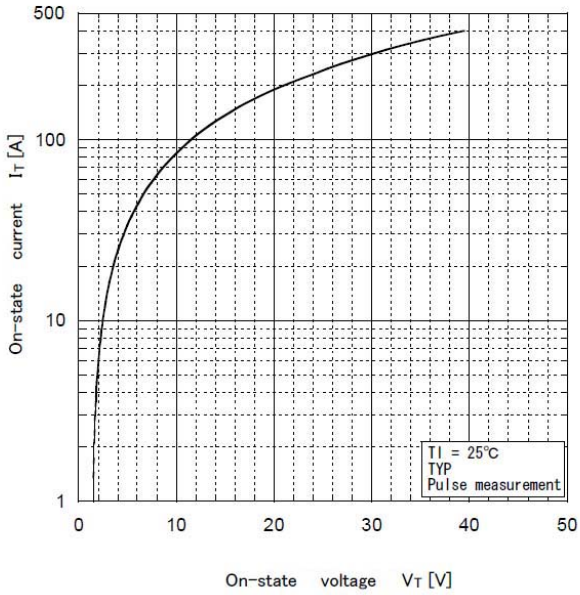
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakover voltage	$V_{BO}$	$dV/dt=8V/ms$	195		225	V
Clamping voltage	$V_{CL}$	$dV/dt=100V/\mu s$			250	V
Off-state current	$I_{DSM}$	$V_D=180V$			5	$\mu A$
Holding current	$I_H$	Pulse measurement	100			mA
On-State Voltage	$V_T$	$I_T=2A$			5	V
Junction capacitance	$C_j$	$f=160kHz, V_D=14V, OSC=20mV$		285		pF

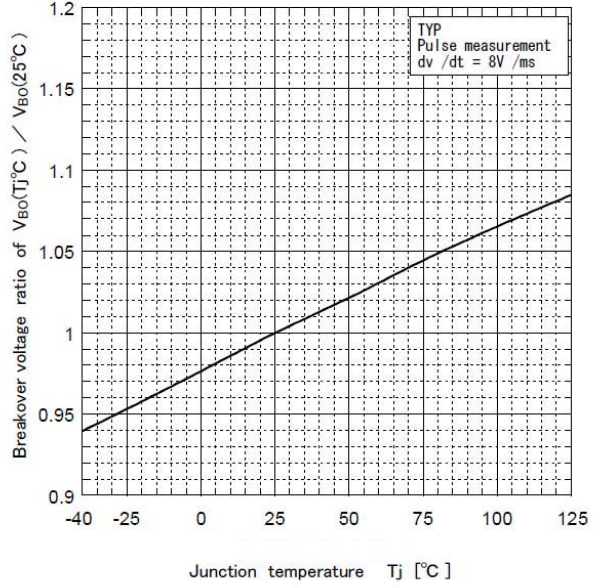
\* :See the original Specifications

# CHARACTERISTIC DIAGRAMS

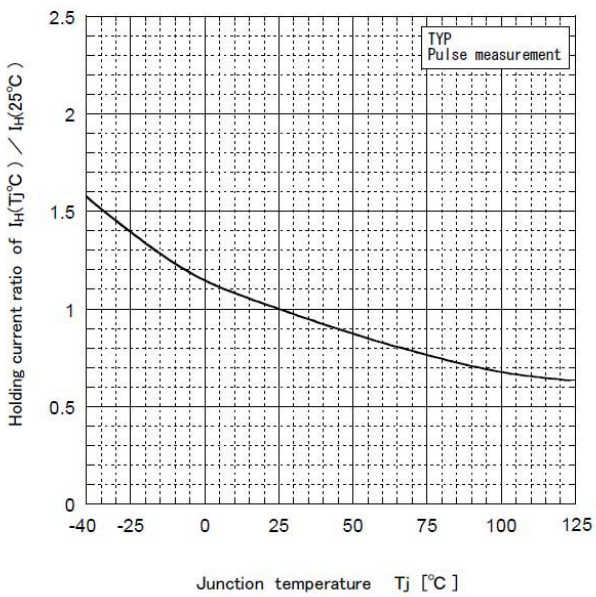
On-state voltage vs On-state current



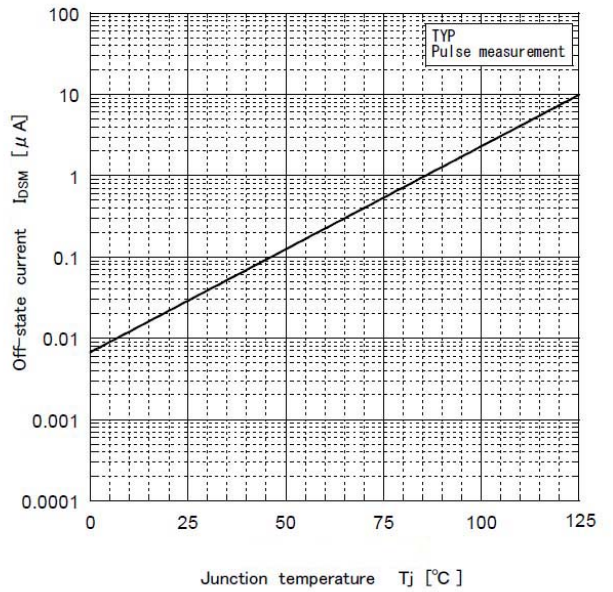
Breakover voltage vs Junction temperature



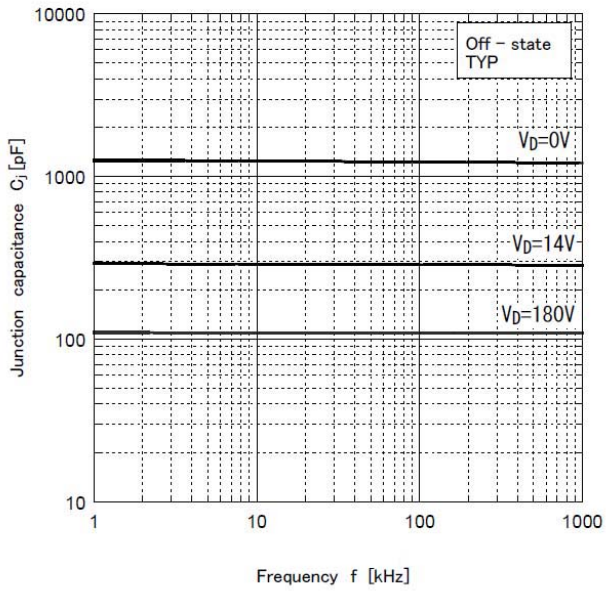
Holding Current vs Junction Temperature



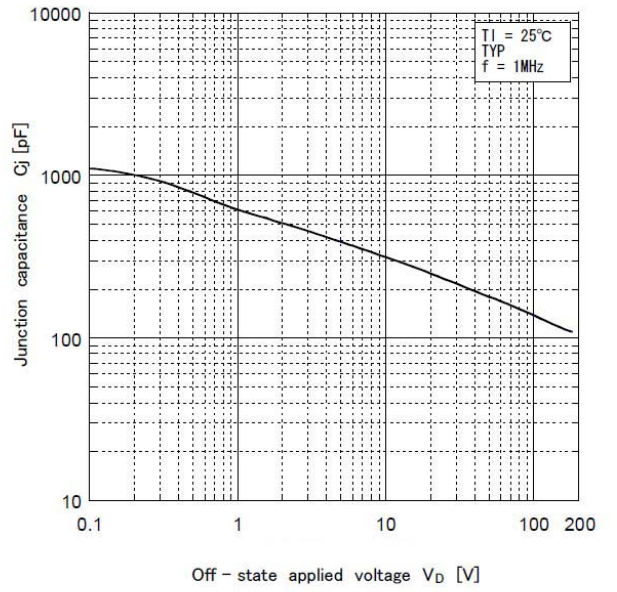
Off-state current vs Junction temperature



Junction capacitance

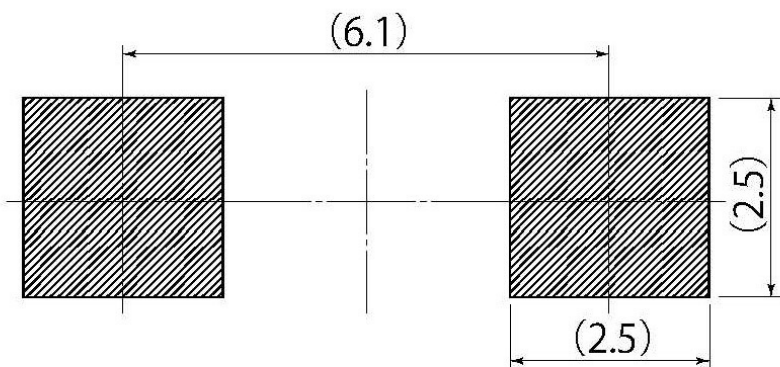
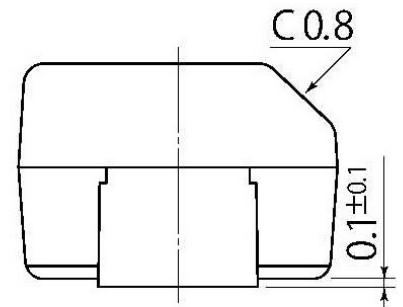
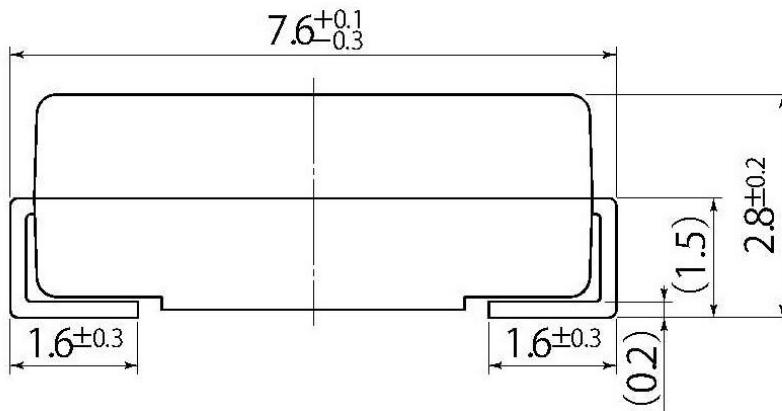
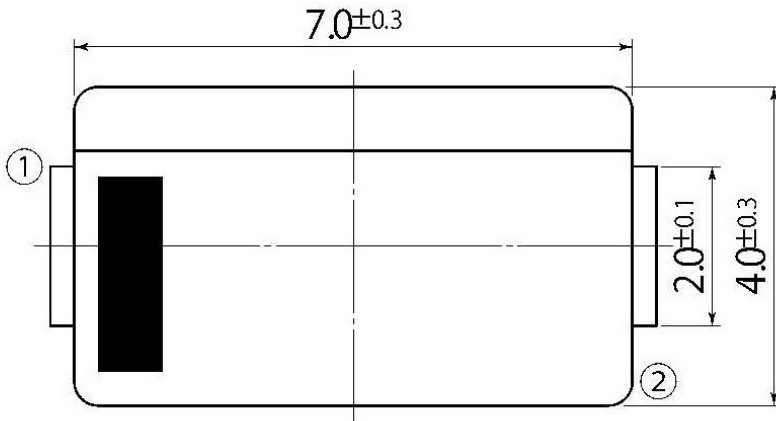


Junction capacitance



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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  - 【Specific applications】  
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