

# KP40NU11

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

## Feature

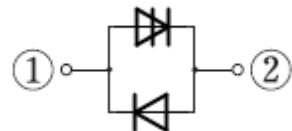
- Uni-Directional
- High-speed response characteristic
- Large surge current capacity
- Pb free terminal
- RoHS:Yes

## 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>		92	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 <sub>i</sub> =15Ω, R <sub>L</sub> =25Ω	500	A
Peak surge forward current	I <sub>FSM</sub>	V=10/700μs 20kV, Non-Repetitive, R <sub>i</sub> =15Ω, R <sub>L</sub> =25Ω	500	A

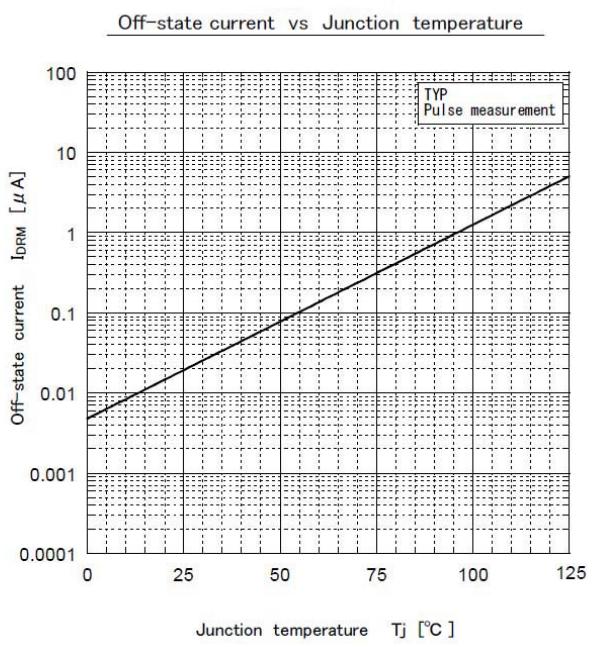
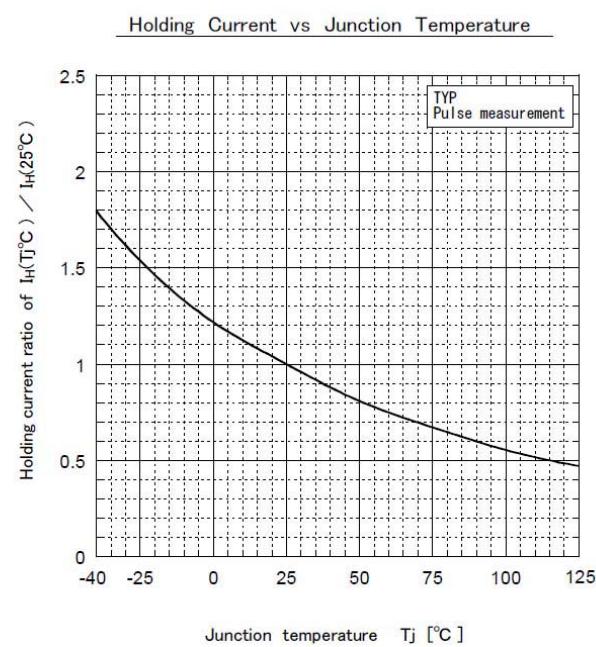
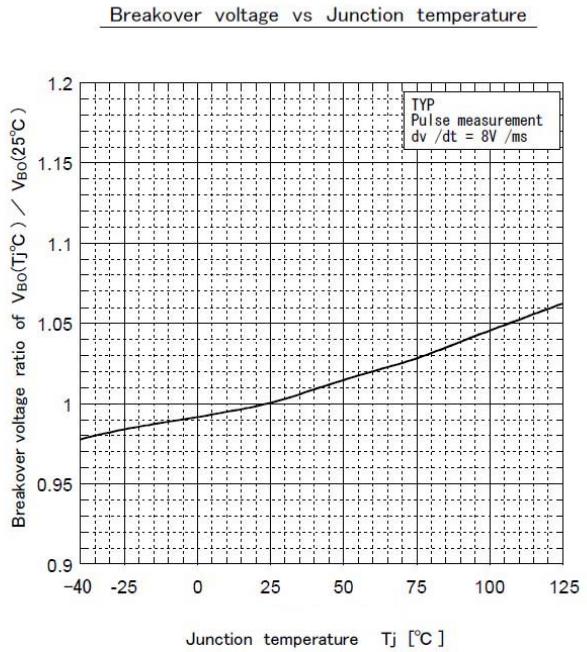
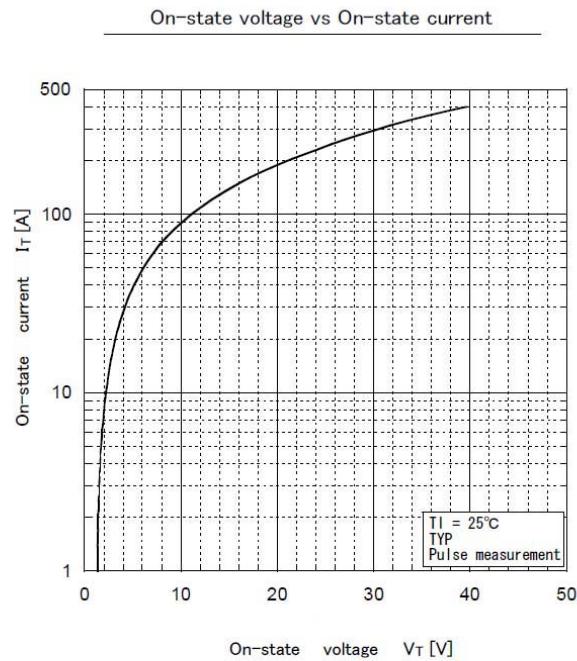
※ :See the original Specifications

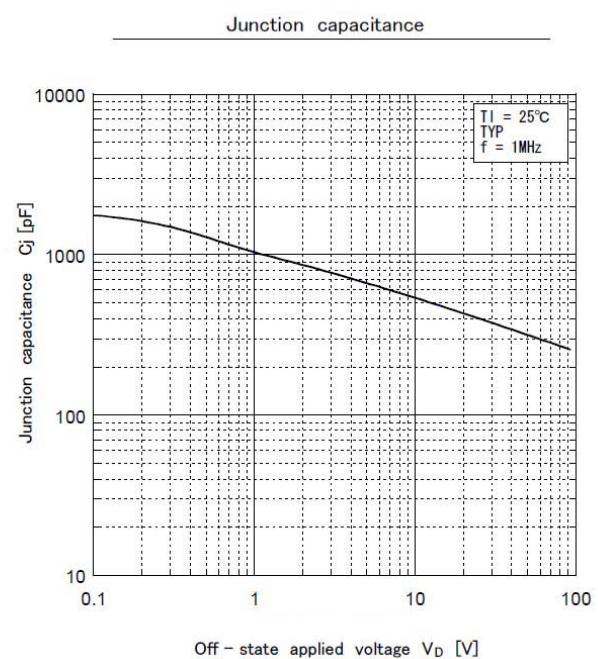
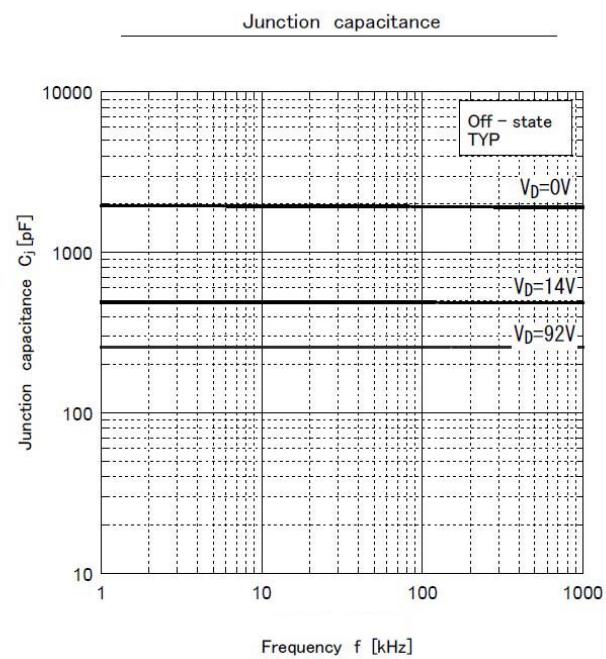
**Electrical Characteristics** (unless otherwise specified :  $T_{l}=25^{\circ}\text{C}$ )

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakover voltage	$V_{BO}$	$dV/dt=8\text{V/ms}$	100		115	V
Clamping voltage	$V_{CL}$	$dV/dt=100\text{V}/\mu\text{s}$			130	V
Off-state current	$I_{DSM}$	$VD=92\text{V}$			5	$\mu\text{A}$
Holding current	$I_H$	Pulse measurement	150			mA
On-State Voltage	$V_T$	$IT=2\text{A}$			5	V
Junction capacitance	$C_j$	$f=160\text{kHz}, VD=14\text{V}, OSC=20\text{mV}$		485		pF

※ :See the original Specifications

## CHARACTERISTIC DIAGRAMS





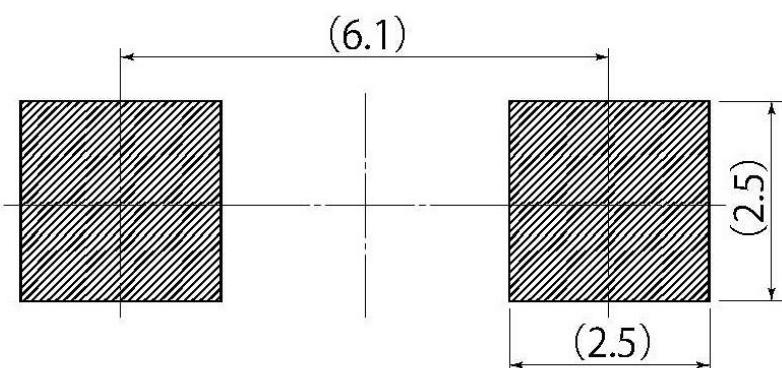
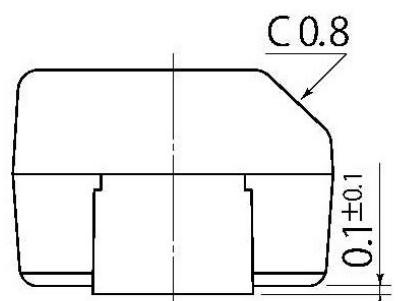
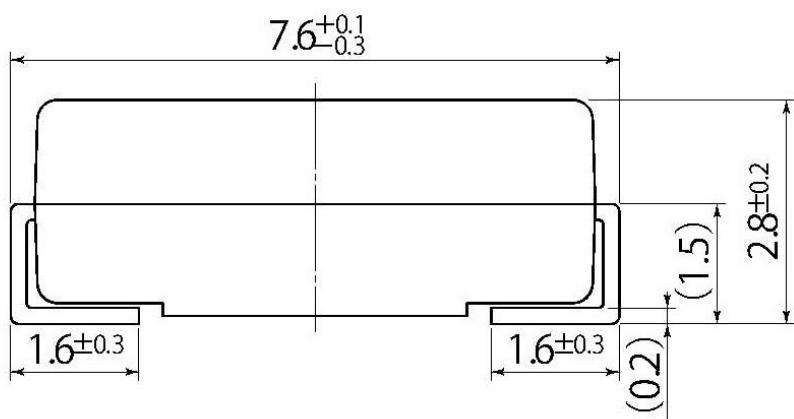
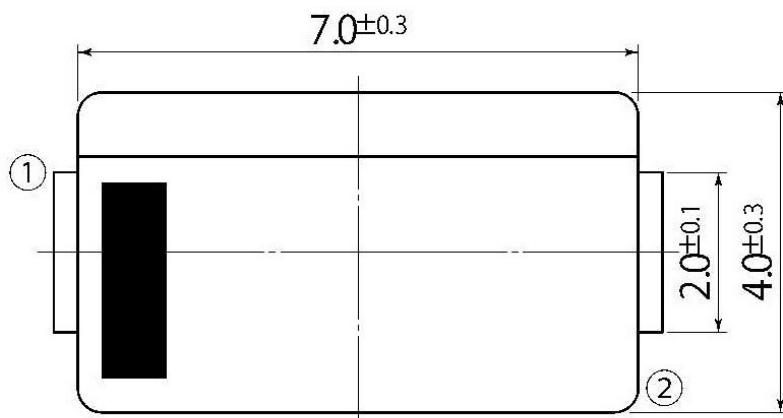
## Outline Dimensions

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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### 【Special applications】

Transportation equipment (vehicles, ships, etc.), trunk-line communication equipment, traffic signal control systems, anti-disaster/crime systems, safety equipment, medical equipment, etc.

### 【Specific applications】

Nuclear reactor control systems, aircraft, aerospace equipment, submarine repeaters, life support equipment and systems, etc.

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