

KP40RU22

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

Feature

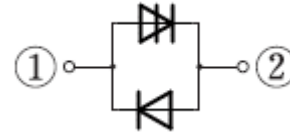
- Uni-Directional
- High-speed response characteristic
- Large surge current capacity
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): 2F



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T _{stg}		-40 to 125	°C
Junction temperature	T _j		125	°C
Non-repetitive peak reverse voltage	V _{DSM}		180	V
Repetitive peak reverse voltage	V _{DRM}		60	V
Peak surge on-state current	I _{TSM}	V=10/700µs 20kV, Non-Repetitive, R=15+25Ω	500	A
Peak surge forward current	I _{FSM}	V=10/700µs 20kV, Non-Repetitive, R=15+25Ω	500	A

* : See the original Specifications

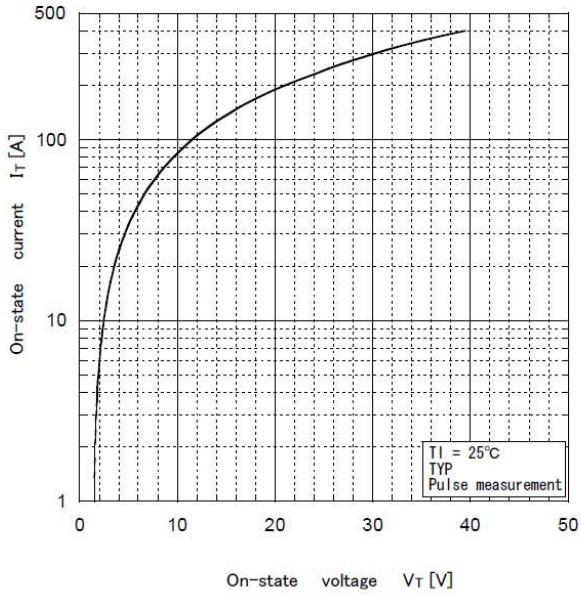
Electrical Characteristics (unless otherwise specified : Tl=25°C)

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	μA
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

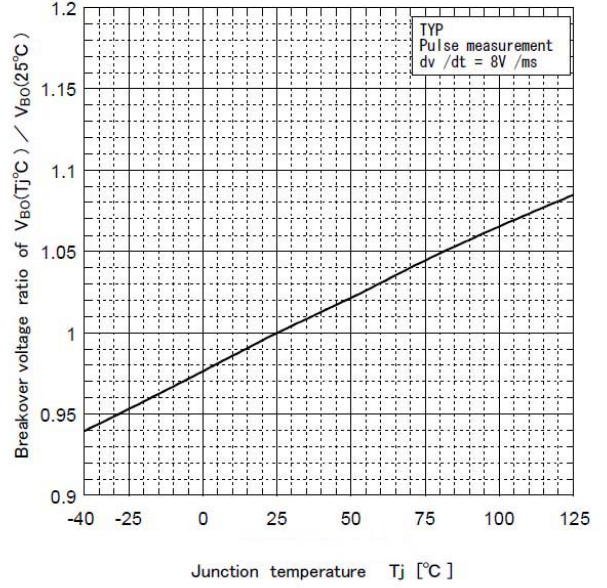
* :See the original Specifications

CHARACTERISTIC DIAGRAMS

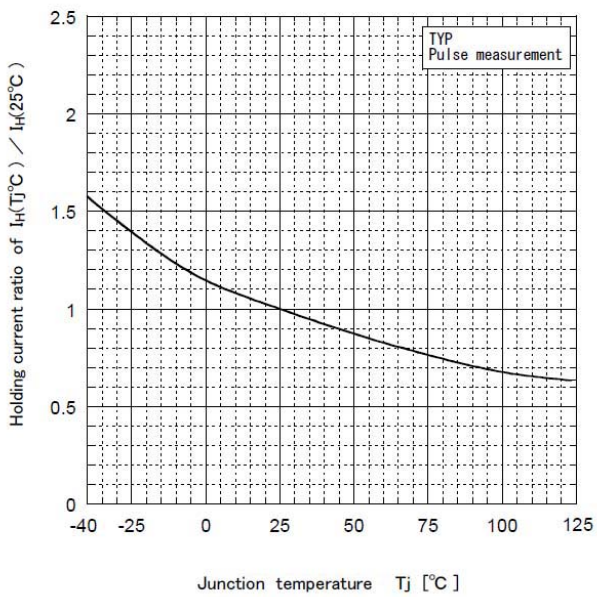
On-state voltage vs On-state current



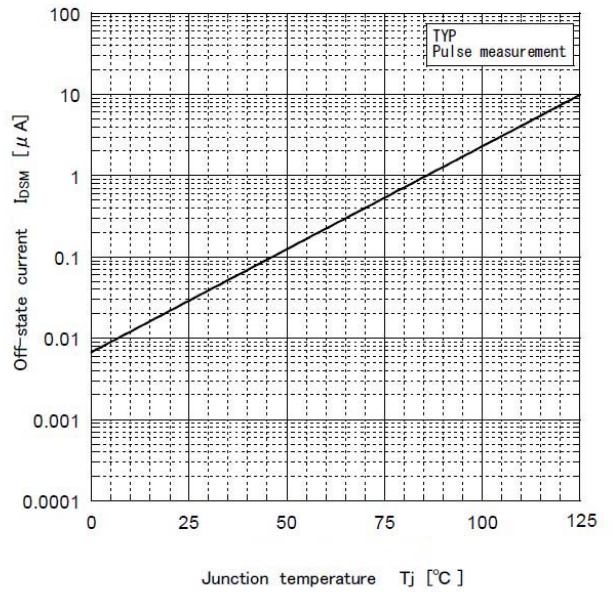
Breakover voltage vs Junction temperature



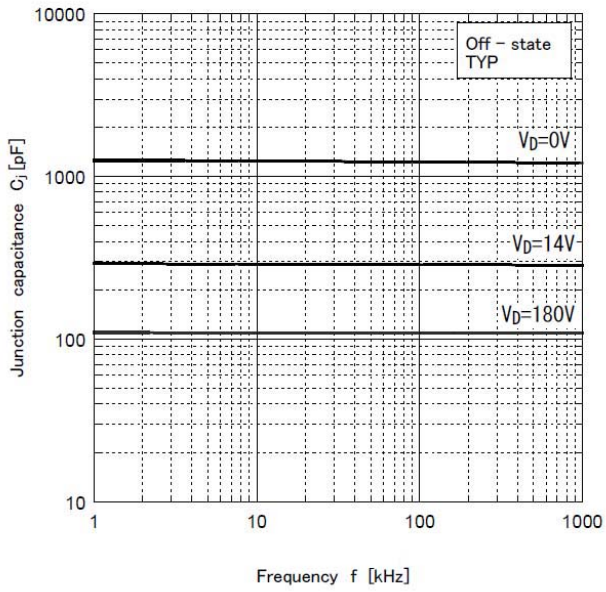
Holding Current vs Junction Temperature



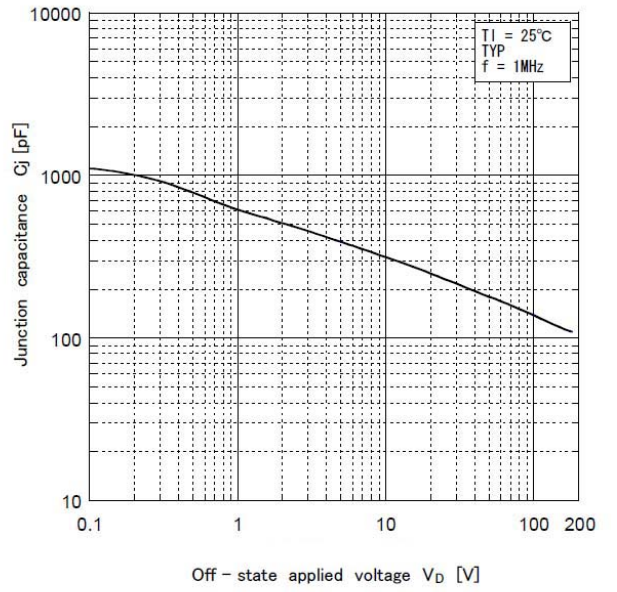
Off-state current vs Junction temperature



Junction capacitance



Junction capacitance



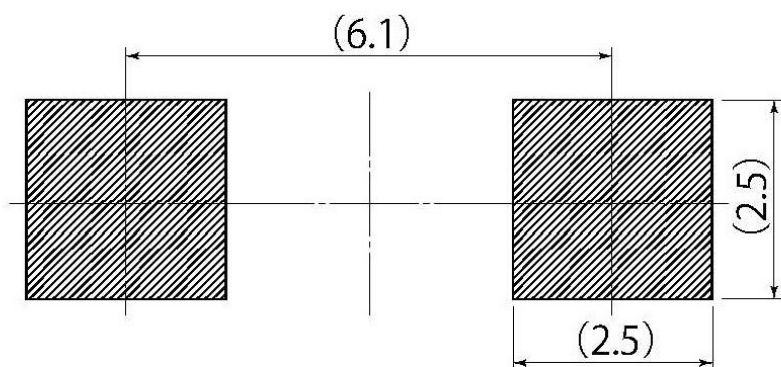
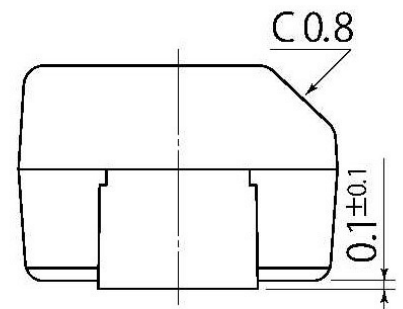
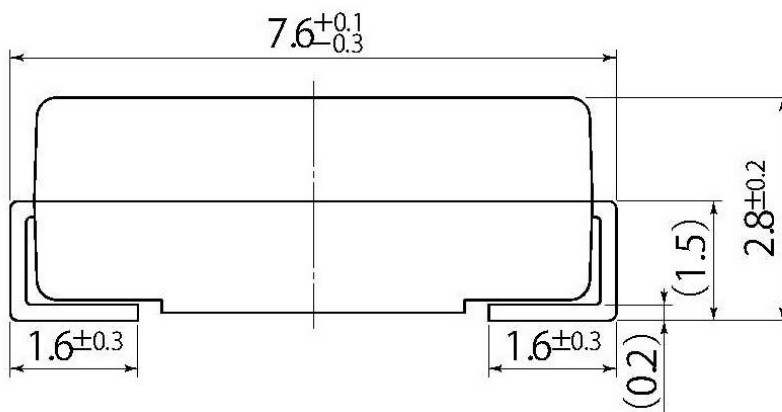
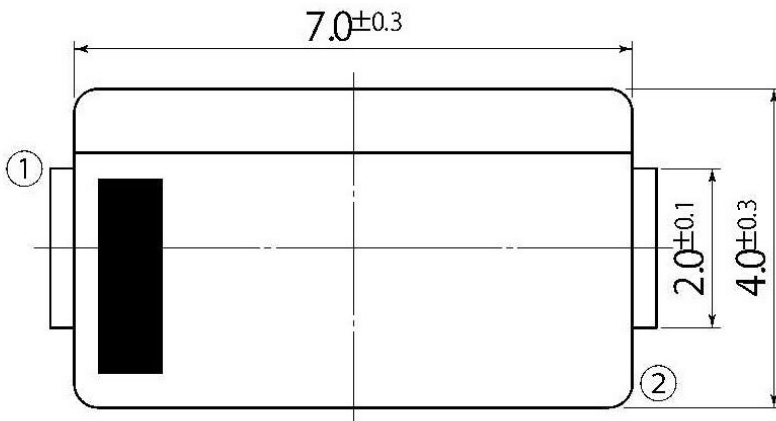
Outline Dimensions

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.