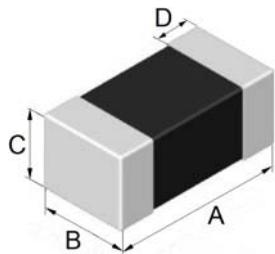


1. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)
1206	3.20+0.60/-0.20	1.60+0.40/-0.20	1.90 max.	0.50±0.20

2. Part Numbering

TVS 1206 SN 120 - 040 K
A B C D E F

A: Series

B: Dimension

C: Super High Network

D: Breakdown voltage 120=12V

E: surge voltage 040=4KV

F: Inner Code

3. Specification

TAI-TECH Part Number	Maximum allowable continuous AC voltage at 50-60Hz V_{RMS} (V)	Maximum allowable continuous DC voltage V_{DC} (V)	Breakdown voltage V_B (V)	Maximum allowable clamping voltage V_c (V)	Maximum peak current (10/700μs) I_{PEAK} (A)	Maximum surge voltage (10/700μs) I_{Surge} (KV)
TVS1206SN120-040K	6	9	12(12~20)	30	100	4
TVS1206SN120-060K	6	9	12(12~20)	30	150	6

Notes :

1. The breakdown voltage was measured at 1mA current
2. The clamping voltage was measured at 8/20μs standard current, 1206(1A)
3. The surge current was tested at 10/700μs waveform, $R_i=40\text{ohm}$. Common-mode testing is to test all data lines while the GND

3-1. Reference Data

ITEM	Symbol	Unit	Value
Typical capacitance value measured at 1KHz	C	pF	TVS1206SN120-040K : 3200 TVS1206SN120-060K : 3850
Response time	T_{rise}	ns	< 1
Non-linear coefficient	α		> 20
Leakage current at $V_B \times 80\%$ (at initial state)	I_{VB}	μA	< 10
Leakage current at $V_B \times 80\%$ (after surge test)	I_{VVA}	μA	< 80
Operation ambient temperature	T_{OPT}	°C	-55~+125
Storage temperature range	T_{STG}	°C	-55~+150

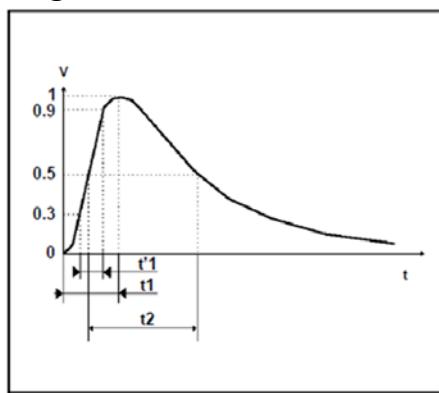
3-2. Other Data

Body	Nano special ceramic
End termination	Ag/Ni/Sn
Packaging	Reel
Complies with standard	IEC61000-4-5 ITU-T K20, K21
Complies with RoHS standard	Yes
Lead content	< 1000 ppm
Marking	None

Notes :

1. The capacitance value only for customer reference, it's not formal specification.
2. The components shall be employed within 1 year, in the nitrogen condition.

4. Surge Wave Form



10/700μs waveform current

K21 Standard

SEVERITY LEVEL	t_1 (=1.67 t_1)	t_2
1	10μS	700μS

Equivalent Circuit

L	Body Inductance
C	Device Capacitance
VR	Voltage Variable Resistor
R	Insulation Resistor
Diode	Voltage Clamped
PTC	for Low Leakage Current

