SMD Transient Voltage Suppressors

TVS1210SN-Series

1. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)
1210	3.20+0.60/-0.20	2.50+0.40/-0.20	2.60 max.	0.50±0.25

2. Part Numbering



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)	Maximum peak current (8/20µs) (15 time) I _{PEAK} (A)
TVS1210SN750-040K	48	60	75(±10)	100	100	4	500
TVS1210SN750-060K	48	60	75(±10)	100	150	6	500

Notes :

1. The breakdown voltage was measured at 1mA current.

2. The clamping voltage was measured at 8/20µs standard current, 1210(2.5A)

3. The surge current was tested at 10/700µs waveform, Ri=40ohm. 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	С	pF	TVS1210SN750-040K : 1000 TVS1210SN750-060K : 1300	
Response time	Trise	ns	< 1	
Non-linear coefficient	α		> 30	
Leakage current at $V_B \times 80\%$ (at initial state)	I _{VB}	μA	< 10	
Leakage current at $V_B \times 80\%$ (after surge test)	Ivva	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 UL1449,File No.E334409-VZCA2			
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.

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4. Surge Wave Form



10/700µs waveform current

K21 Standard

SEVERITY LEVEL	t1 (=1.67t'1)	t2	
1	10µS	700µS	

Equivalent Circuit

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

