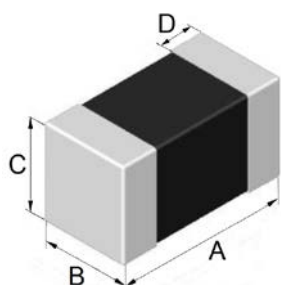


SMD Transient Voltage Suppressors

TVSM0806SHUL-Series

1. Dimension



Series	A(mm)	B(mm)	C(mm)	D(mm)
TVSM0806SHUL241-201A	2.10±0.20	1.50±0.20	1.70 max.	0.40+0.15/-0.20
TVSM0806SHUL271-101A	2.20±0.20	1.70±0.20	1.80 max.	0.40+0.15/-0.20
TVSM0806SHUL431-101A	2.10±0.20	1.50±0.20	1.70 max.	0.40+0.15/-0.20

2. Part Numbering

TVSM 0806 SHU L 241 - 201 A □

A B C D E F G H

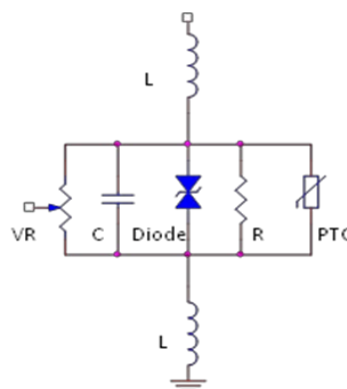
A: Series	Multilayer Varistor
B: Dimension	
C: Category Code	High Performance Surge Protection with Safety Certification
D: Product Grade	L =Lighting Grade
E: Voltage Code	241=Breakdown Voltage 240V
F: Characteristic Code	201=Peak Current 200A
G: Characteristic Unit Code	A=Amp
H: Inner Code	

3. Features

1. RoHS compliant
2. SMD type body size 0806
3. Meet IEC61000-4-5 and UL1449 standards
4. Bidirectional and symmetrical V/I characteristics
5. Large withstanding surge current capability
6. Operating temperature range : -40~+125°C
7. Multi-Layers construction provides higher power dissipation

Equivalent Circuit

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



4. Technology Data

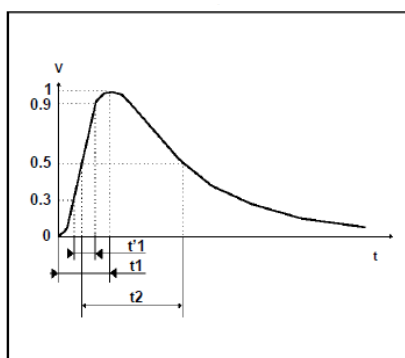
TAI-TECH Part Number	Maximum allowable continuous AC voltage @ 50-60Hz V_{RMS} (V)	Maximum allowable continuous DC voltage V_{DC} (V)	Breakdown voltage V_B (V)	Maximum allowable clamping voltage V_C (V)	Maximum peak current (8/20 μ s) (1 time) I_{Peak} (A)	Maximum peak current (8/20 μ s) (15 time) I_{Peak} (A)	Typical capacitance value measured at 1kHz C (pF)
TVSM0806SHUL241-201A	150	200	240($\pm 10\%$)	395	200	100	95
TVSM0806SHUL271-101A	175	225	270($\pm 10\%$)	450	100	100	50
TVSM0806SHUL431-101A	275	350	430($\pm 10\%$)	705	100	100	45

Notes:

1. The breakdown voltage was measured at 1mA.
2. The clamping voltage was measured at 8/20 μ s standard current, 0806(1A).
3. The peak current was tested at 8/20 μ s waveform.
4. The capacitance value only for customer reference, it's not formal specification.

4-1. Reference Data			
ITEM	Symbol	Unit	Value
Response time	T_{RISE}	ns	< 1
Non-linear coefficient	α		>15
Leakage current at $V_B \times 80\%$ (at initial state)	I_{VB}	μA	< 50
Leakage current at $V_B \times 80\%$ (after surge test)	I_{VBA}	μA	< 200
Operation ambient temperature	T_{OPT}	$^{\circ}C$	-40~+125
Storage temperature range	T_{STG}	$^{\circ}C$	-40~+150
4-2. Other Data			
Body	Nano special ceramic		
End termination	Ag/Ni/Sn		
Packaging	Reel		
Complies with standards	IEC61000-4-5 UL 1449, File No. E334409-VZCA2		
Complies with RoHs standard	Yes		
Lead content	< 1000 ppm		
Marking	None		

5. Surge Wave Form



IEC61000-4-5 Standards

SEVERITY LEVEL	t1 ($\approx 1.67t'1$)	t2
1	10 μ s	1000 μ s
2	8 μ s	20 μ s

8/20 μ s waveform current