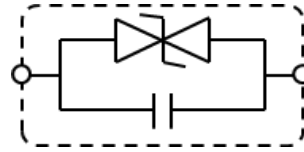


Multilayer Chip Varistor : AVRH10C101KT1R1NE8

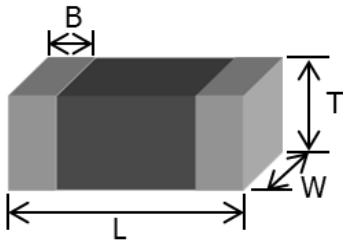
Features

- Automotive (AEC-Q200) grade
- Size : EIA0402 (1.0x0.5mm)
- Excellent ESD clamp characteristics
- High ESD durability : IEC61000-4-2, Level 4
- Operating temperature range : -55°C ~ 150°C

Equivalent Circuit

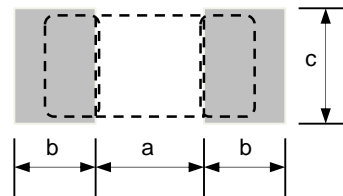


Shapes & Dimensions



Unit / mm				
EIA	L	W	T	B
0402	1.0±0.05	0.5±0.05	0.5±0.05	0.1 Min.

Recommended PCB Pattern



Unit / mm			
EIA	a	b	c
0402	0.3 to 0.5	0.35 to 0.45	0.4 to 0.6

Product Identification

AVRH **10** **C** **101** **K** **T** **1R1** **N** **E** **8**
 (1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

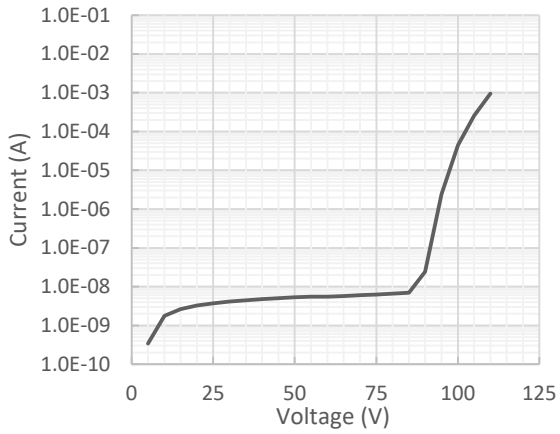
(1)	Series name / AVRH
(2)	Dimension / 10:1.0x0.5(mm)
(3)	Structure
(4)	Varistor voltage / 101:10x10 ¹ (V)
(5)	Varistor voltage tolerance / K : ±10(%)
(6)	Packaging scheme / T : Taping
(7)	Capacitance / 1R1 : 1.1(pF)
(8)	Capacitance tolerance / N : ±30(%)
(9)	ESD Tolerance (IEC61000-4-2) / E : ±8(kV)
(10)	Operating temperature (Max.) / 8 : 150(°C)

Electrical Characteristics

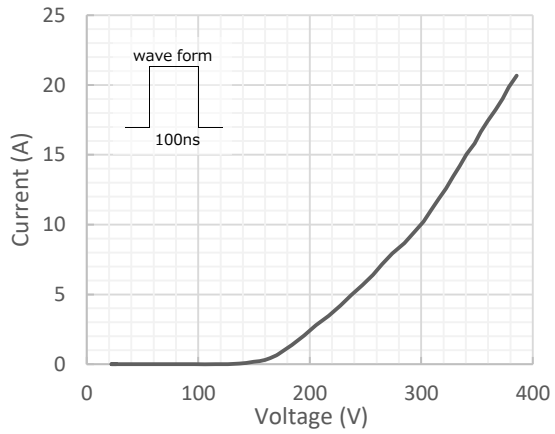
TDK Product Name	Varistor voltage (Breakdown voltage)	Rated voltage	Clamping voltage	Energy	Power Peak Pulse	Peak current	Capacitance	
		DC	8/20µs	10/1000µs	10/1000µs	8/20µs	1MHz, 1Vrms	
		Max.	Typ.	Max.	Typ.	Max.		
	V1mA (V)	Vdc (V)	Vcl (V)	Icl (A)	E (Joule)	Ppp (W)	Ip (A)	C (pF)
AVRH10C101KT1R1NE8	110 (100~120)	70	187	0.3	0.007	5.3	0.3	1.1 (0.8~1.4)

Multilayer Chip Varistor : AVRH10C101KT1R1NE8

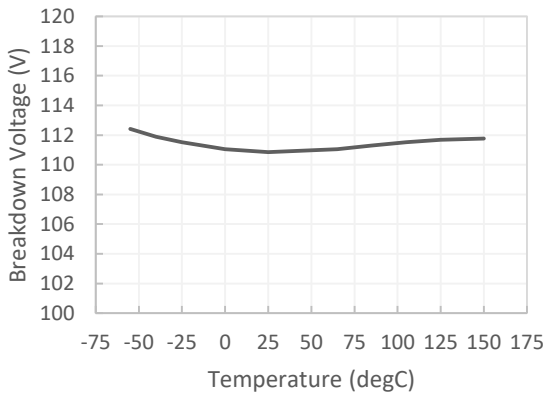
Current - Voltage



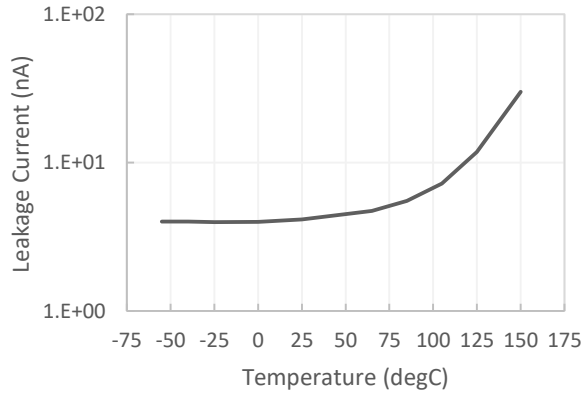
Current - Voltage (TLP)



Breakdown Voltage - Temp.



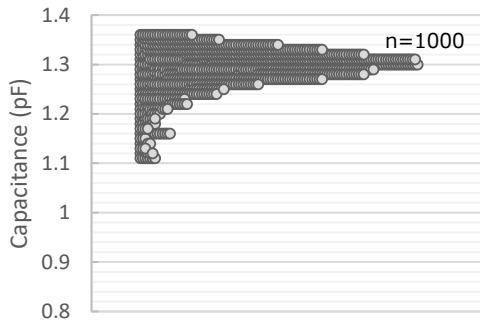
Leakage current - Temp.



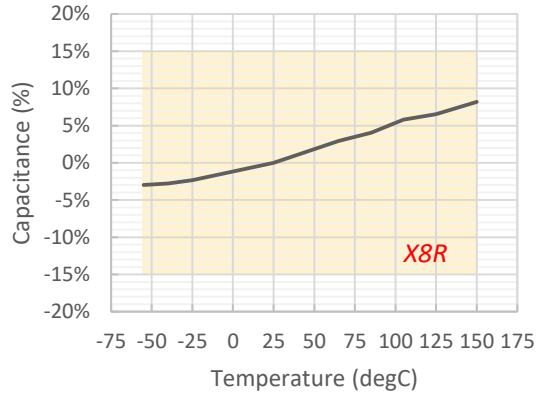
※ Voltage : 70 V

Multilayer Chip Varistor : AVRH10C101KT1R1NE8

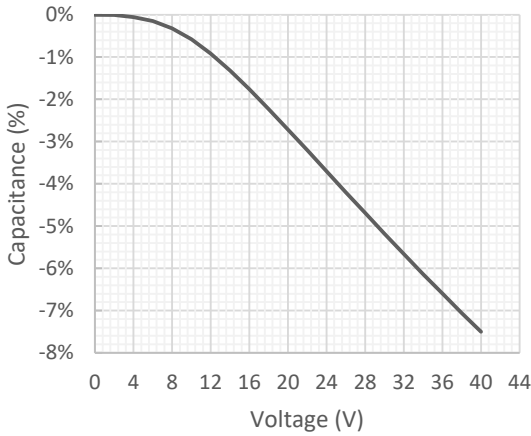
Capacitance Dispersion ※1MHz, 1Vrms



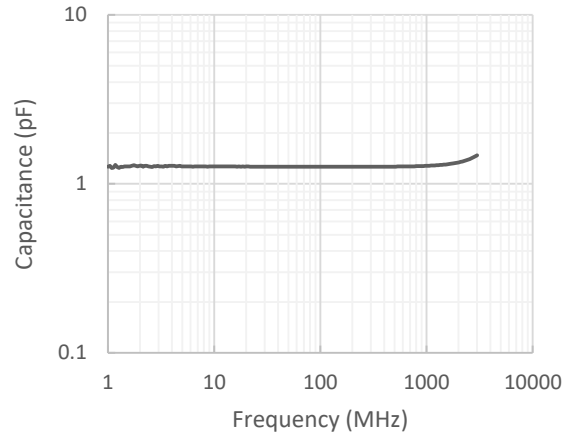
Capacitance - Temp. ※1MHz, 1Vrms



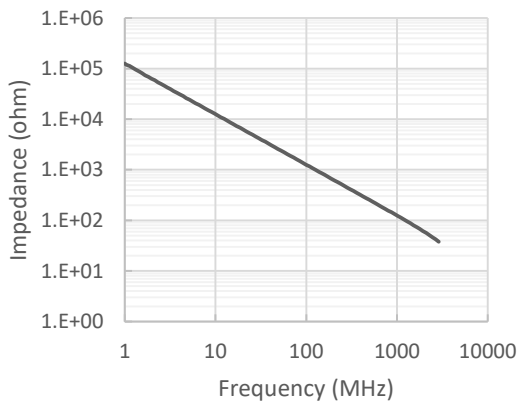
DC bias ※1MHz, 1Vrms



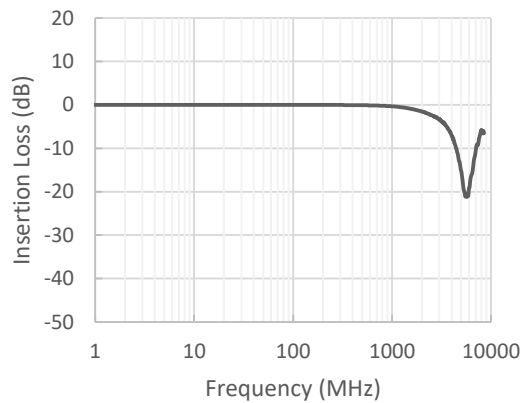
Capacitance - Freq.



Impedance - Freq.



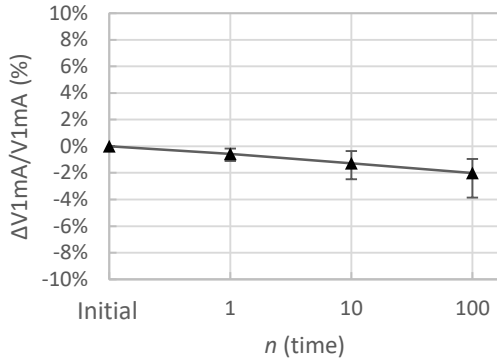
Insertion Loss



Multilayer Chip Varistor : AVRH10C101KT1R1NE8

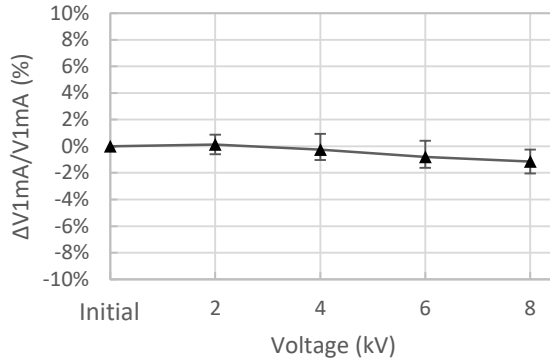
ESD Discharge

▶ 150pF/330ohm, ±8kV, 100times



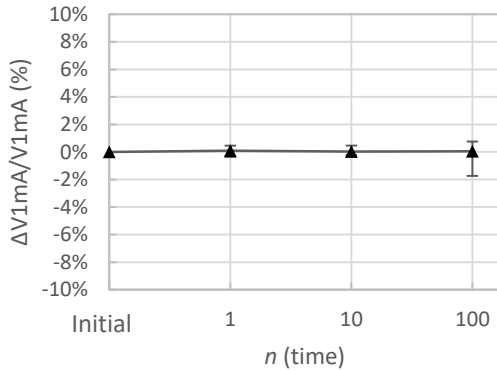
ESD Discharge

▶ 150pF/330ohm, ~±8kV, 10times



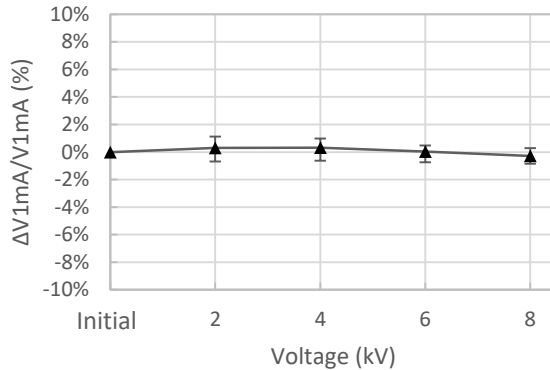
ESD Discharge

▶ 330pF/2000ohm, ±8kV, 100times



ESD Discharge

▶ 330pF/2000ohm, ~±8kV, 10times



※Criteria : $\Delta V1mA/V1mA \leq 10\%$