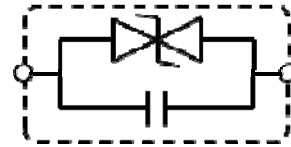


Multilayer Chip Varistor : AVRH10C220YT201MA8

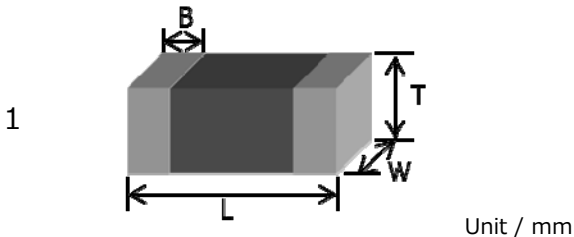
Features

- Automotive (AEC-Q200) grade
- Size : EIA0402 (1.0x0.5mm)
- Excellent ESD clamp characteristics
- High ESD durability : IEC61000-4-2, Contact 25kV
- Operating temperature range : -55°C ~ 150°C

Equivalent Circuit

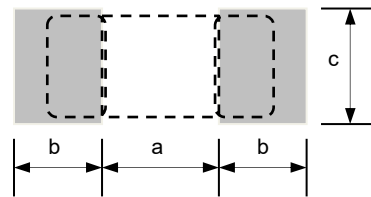


Shapes & Dimensions



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

Recommended PCB Pattern



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 220 Y T 201 M A 8
 (1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

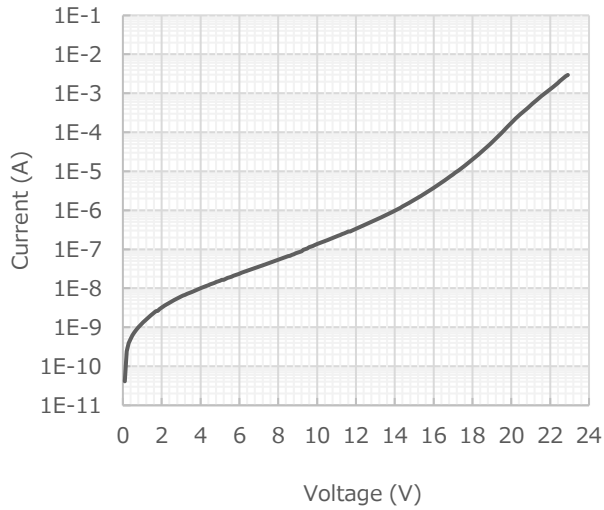
(1)	Series name / AVRH
(2)	Dimension / 10:1.0x0.5(mm)
(3)	Structure
(4)	Varistor voltage / 220:22x10 ⁰ (V)
(5)	Varistor voltage tolerance / Y : 19~26(V)
(6)	Packaging scheme / T : Taping
(7)	Capacitance / 201:20x10 ¹ (pF)
(8)	Capacitance tolerance / M: ± 20%
(9)	ESD Tolerance (IEC61000-4-2) / A : ±25(kV)
(10)	Operating temperature (Max.) / 8 : 150(°C)

Electrical Characteristics

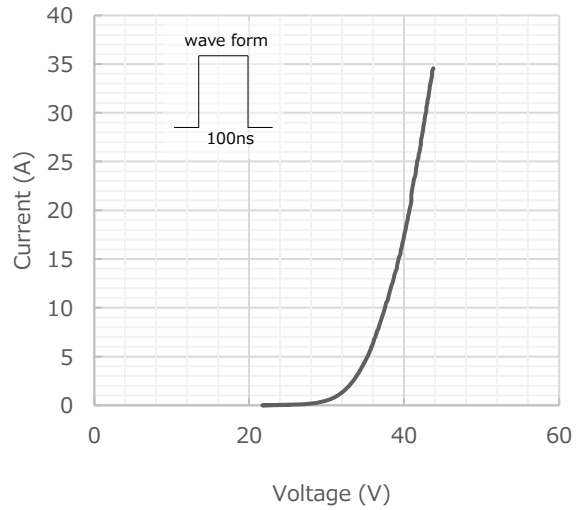
TDK Product Name	Varistor voltage (Breakdown voltage)	Rated voltage	Clamping voltage		Energy	Power peak pulse	Peak current	Capacitance
	V1mA (V)	Vdc (V)	Vcl (V)	Icl (A)	E (Joule)	10/1000µs Typ. Ppp (W)	8/20µs Max. Ip (A)	1kHz, 1Vrms C (pF)
AVRH10C220YT201MA8	22(19~26)	16	40	2	0.07	92.0	40	200 (160~240)

Multilayer Chip Varistor : AVRH10C220YT201MA8

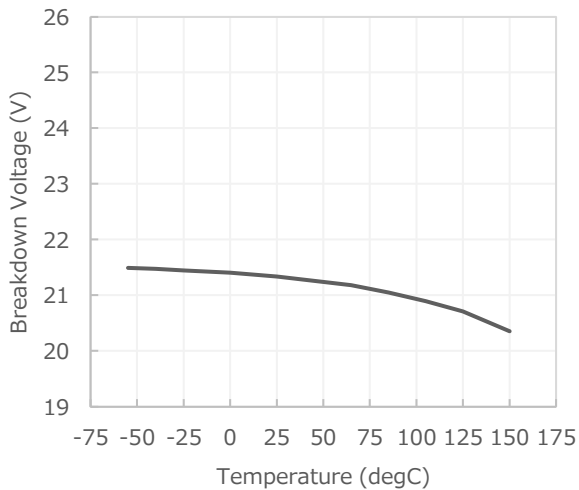
Current - Voltage



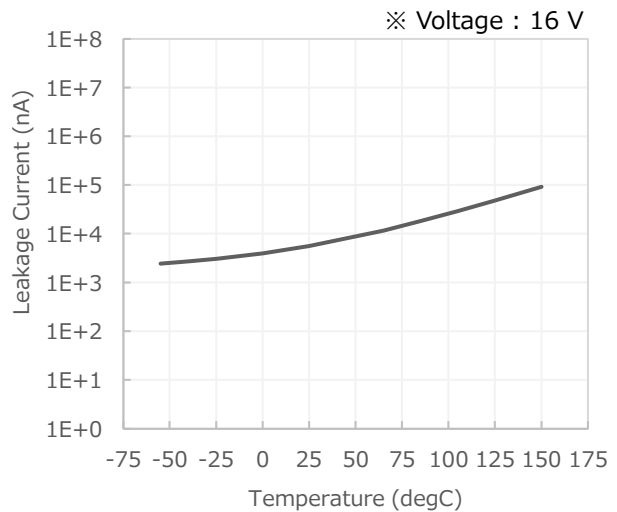
Current - Voltage (TLP)



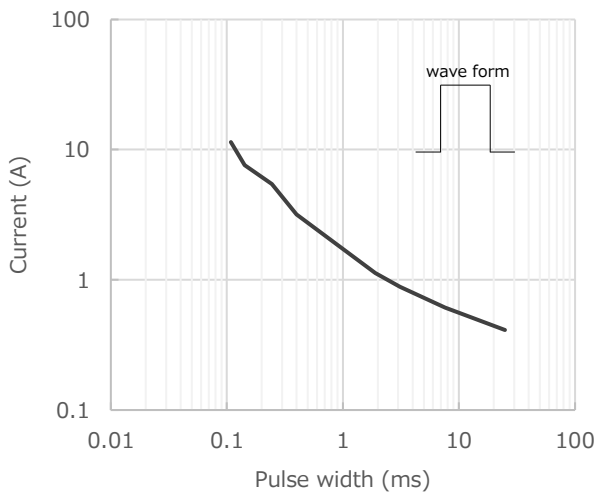
Breakdown Voltage - Temp.



Leakage current - Temp.

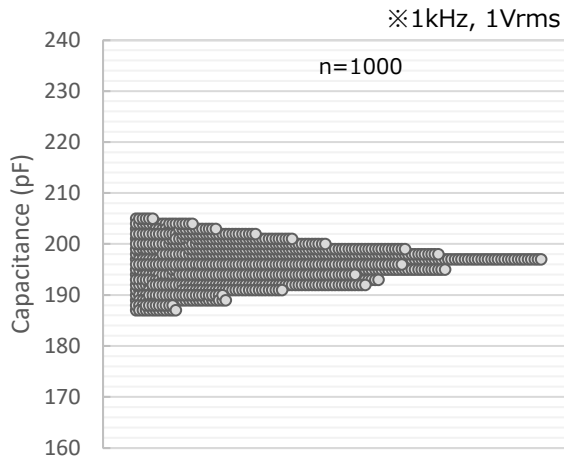


Durability of Pulse Current (Typ. values)

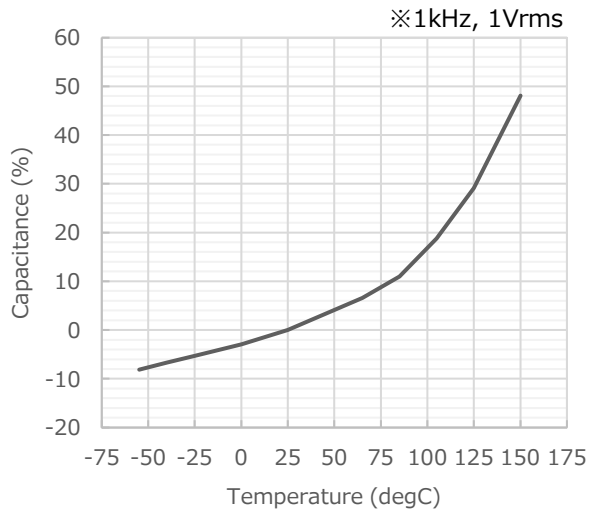


Multilayer Chip Varistor : AVRH10C220YT201MA8

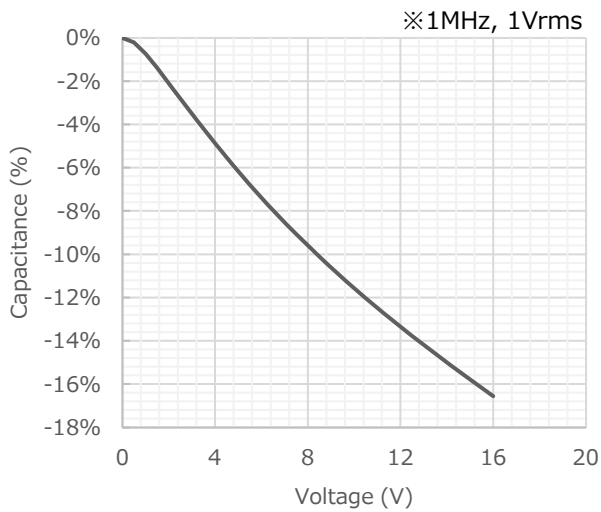
Capacitance Dispersion



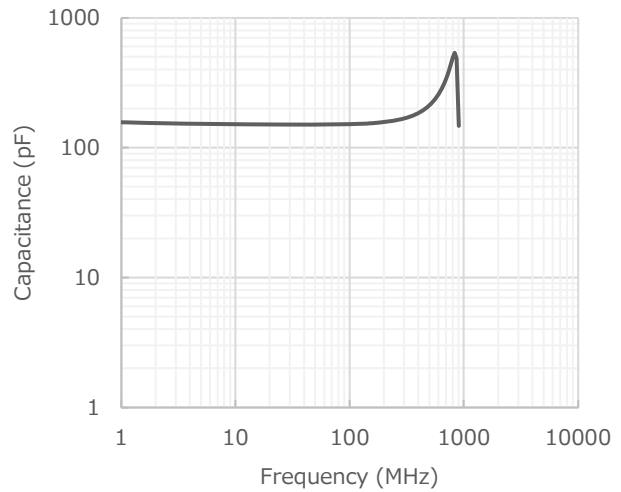
Capacitance - Temp.



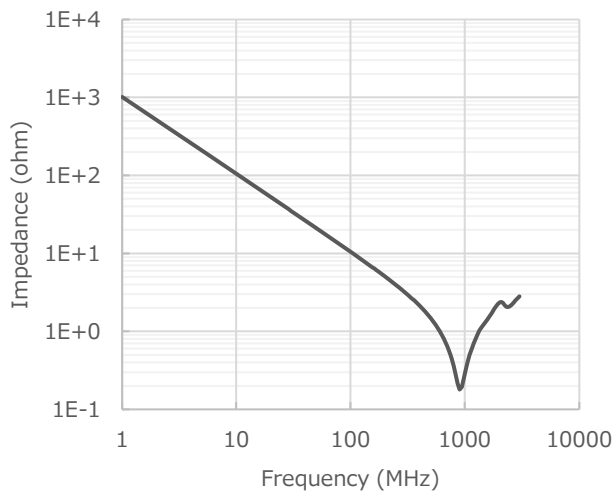
DC bias



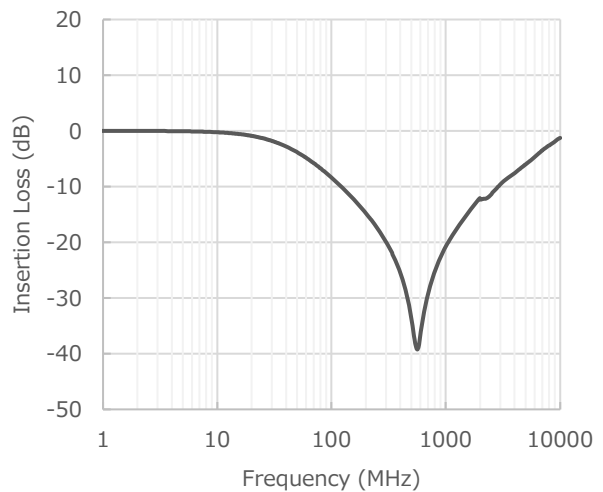
Capacitance - Freq.



Impedance - Freq.



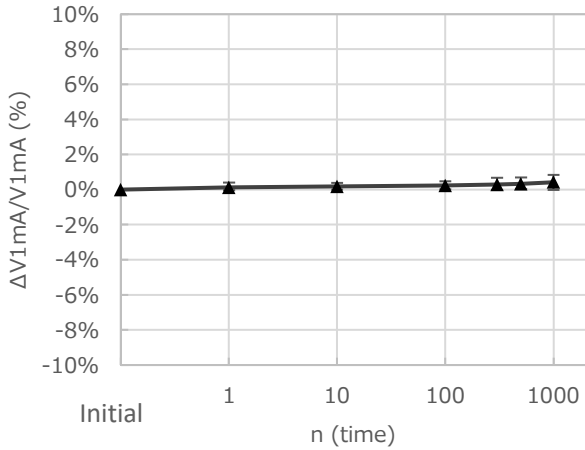
Insertion Loss



Multilayer Chip Varistor : AVRH10C220YT201MA8

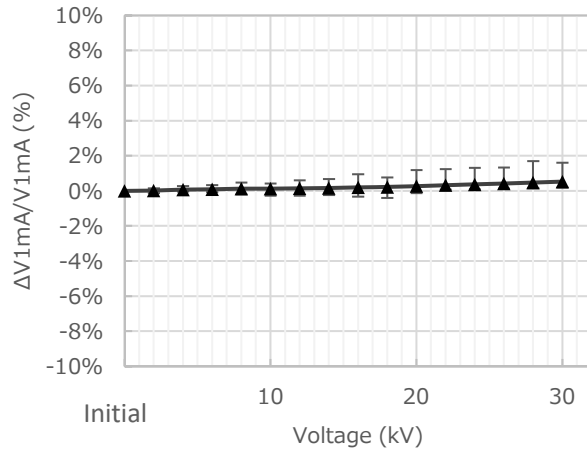
ESD Discharge

▶ 150pF/330ohm, ±25kV, 1000times



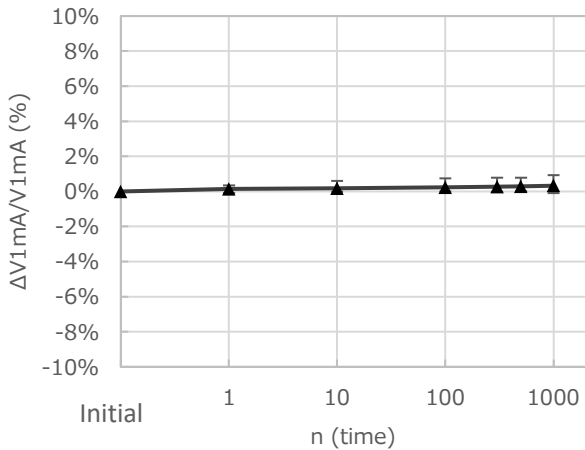
ESD Discharge

▶ 150pF/330ohm, ~±30kV, 10times



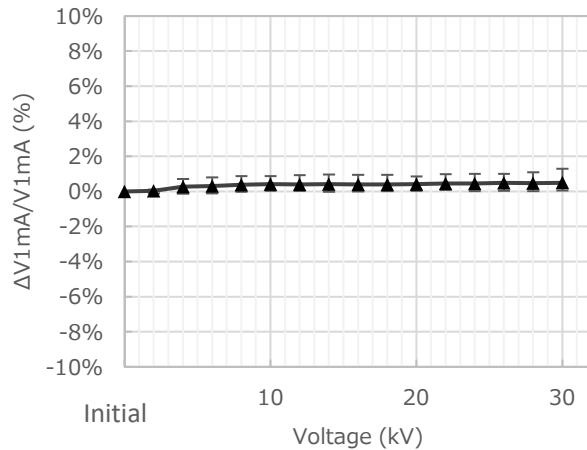
ESD Discharge

▶ 330pF/2000ohm, ±25kV, 1000times



ESD Discharge

▶ 330pF/2000ohm, ~±30kV, 10times



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