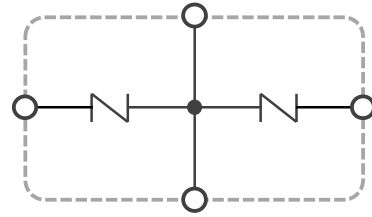


Multilayer Chip Varistor : AVRH16A2C270KT200NA8

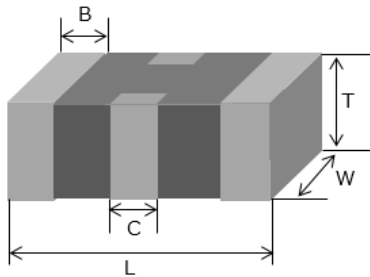
Features

- Automotive (AEC-Q200) grade
- Size : EIA0603 (1.6x0.8x0.6mm)
- Excellent ESD clamp characteristics
- Minimize capacitance difference between channels
- High ESD durability : IEC61000-4-2, Contact 25kV
- Operating temperature range : -55°C ~ 150°C

Equivalent Circuit



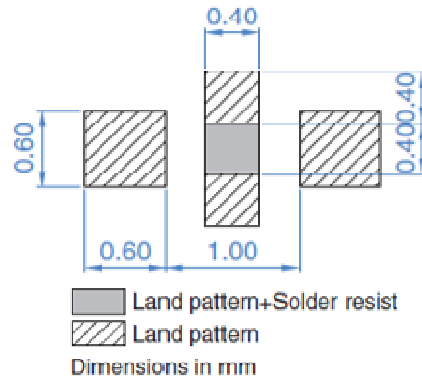
Shapes & Dimensions



Unit / mm

EIA	L	W	T	B	C
0603	1.60±0.20	0.80±0.15	0.60±0.10	0.25±0.10	0.45±0.10

Recommended PCB Pattern



Product Identification

AVRH **16** **A2** **C** **270** **K** **T** **200** **N** **A** **8**
 (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11)

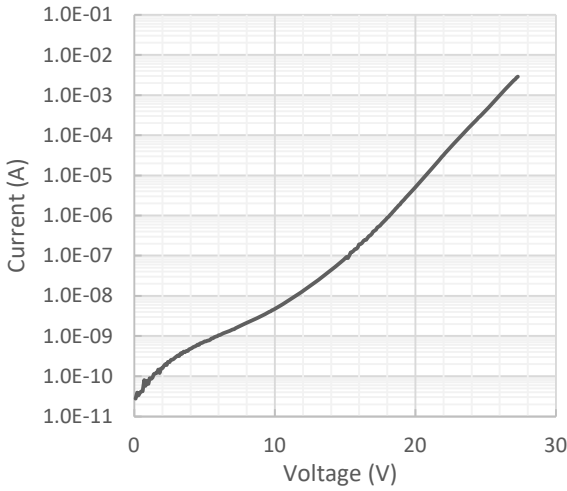
(1)	Series name / AVRH
(2)	Dimension / 16:1.6x0.8x0.6(mm)
(3)	Array 2in1 type
(4)	Structure
(5)	Varistor voltage / 270:27x10 ⁰ (V)
(6)	Varistor voltage tolerance / K : ±10(%)
(7)	Packaging scheme / T : Taping
(8)	Capacitance / 200:20x10 ⁰ (pF)
(9)	Capacitance tolerance / N : ±30(%)
(10)	ESD Tolerance (IEC61000-4-2) / A : ±25(kV)
(11)	Operating temperature (Max.) / 8 : 150(°C)

Electrical Characteristics

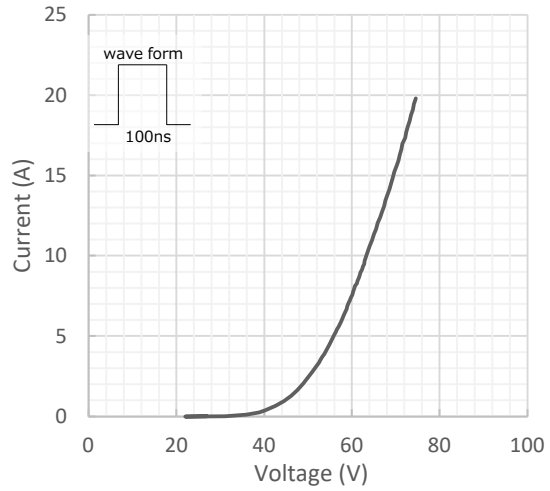
TDK Product Name	Varistor voltage (Breakdown voltage)	Rated voltage	Clamping voltage		Energy	Power Peak Pulse	Peak current	Capacitance	Capacitance difference
		DC	8/20μs		10/1000μs	10/1000μs	8/20μs	1kHz, 1Vrms	ΔC1MHz
		Max.	Typ.		Max.	Typ.	Max.		Max.
	V1mA (V)	Vdc	Vcl	Icl	E	Ppp	Ip	C	ΔC
		(V)	(V)	(A)	(Joule)	(W)	(A)	(pF)	(pF)
AVRH16A2C270KT200NA8	27(24~30)	19	60	2	0.04	18.9	4	20(14~26)	1.0

Multilayer Chip Varistor : AVRH16A2C270KT200NA8

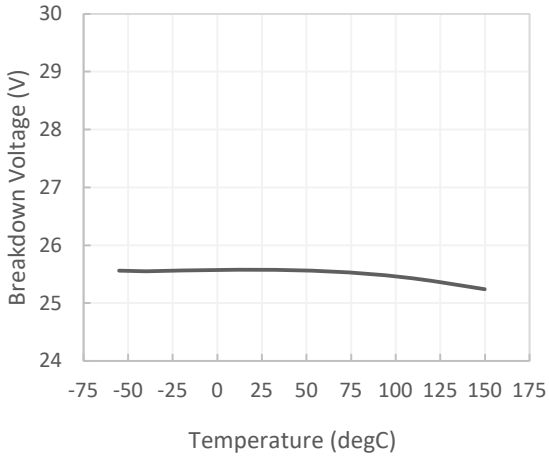
Current - Voltage



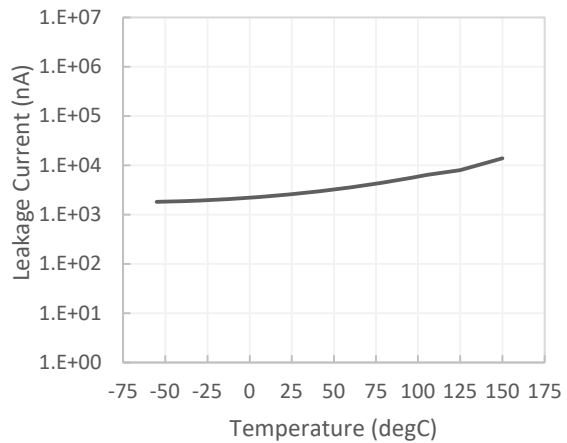
Current - Voltage (TLP)



Breakdown Voltage - Temp.



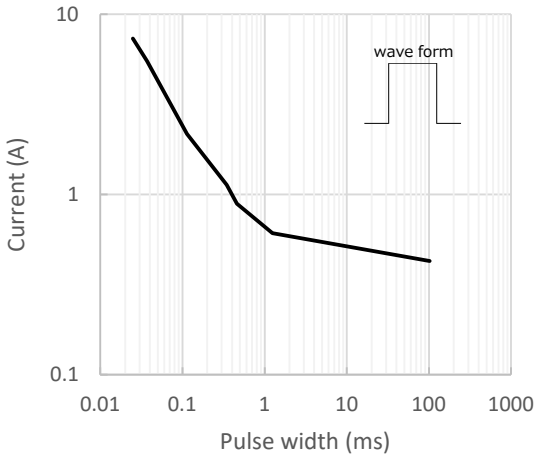
Leakage current - Temp.



※ Voltage : 19 V

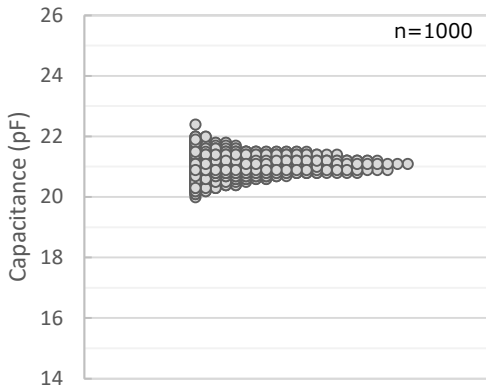
Durability of Pulse Current

(Typ. values)

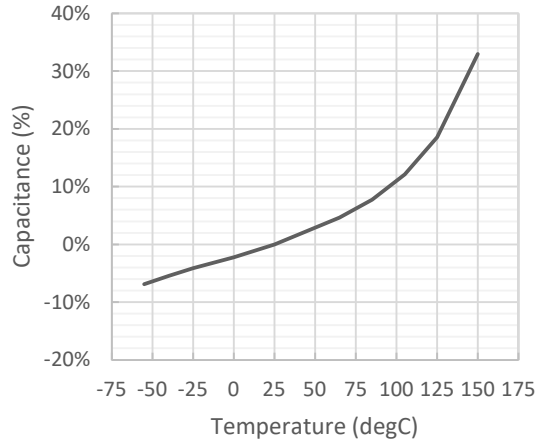


Multilayer Chip Varistor : AVRH16A2C270KT200NA8

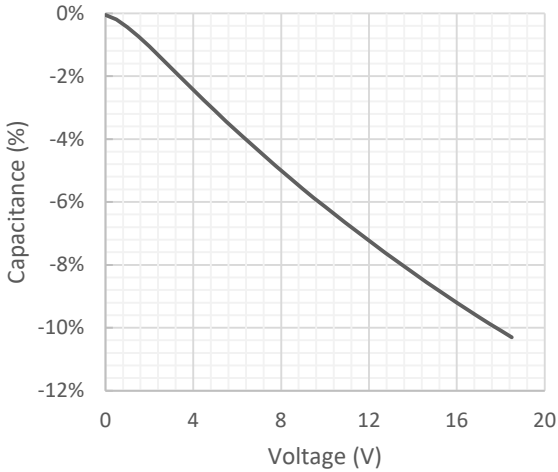
Capacitance Dispersion ※1kHz, 1Vrms



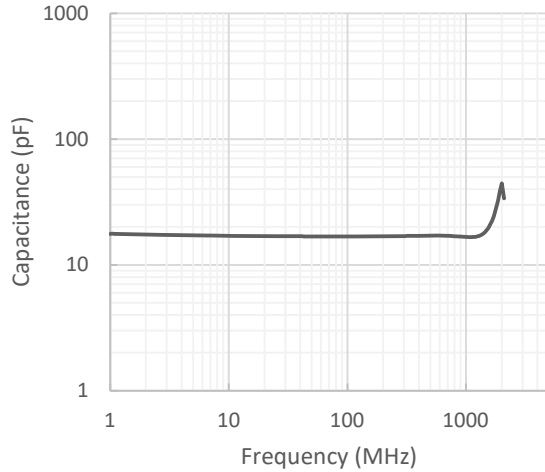
Capacitance - Temp. ※1kHz, 1Vrms



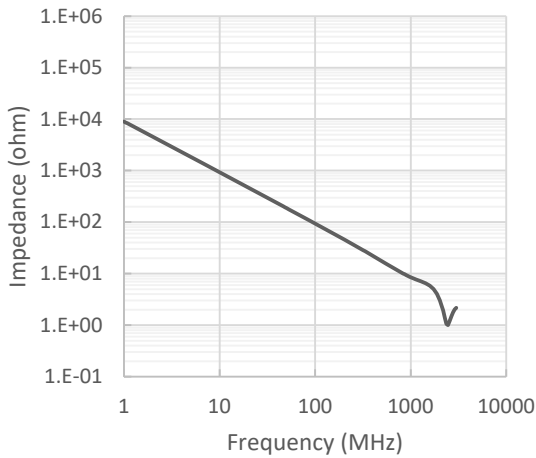
DC bias ※1MHz, 1Vrms



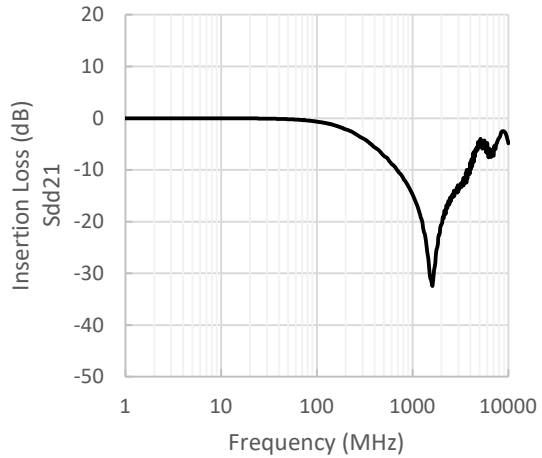
Capacitance - Freq.



Impedance - Freq.



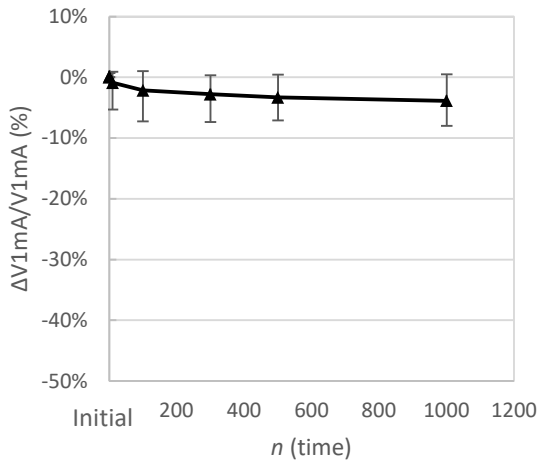
Insertion Loss



Multilayer Chip Varistor : AVRH16A2C270KT200NA8

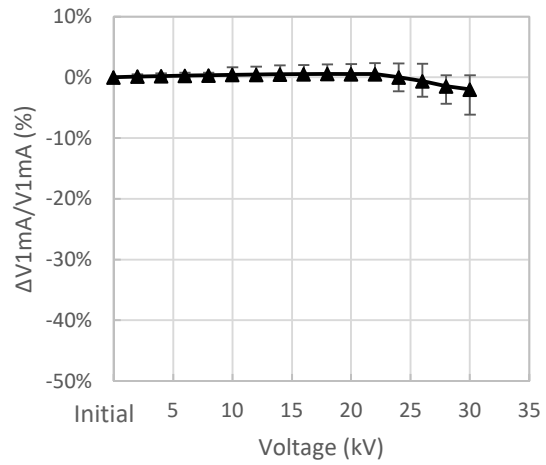
ESD Discharge

▶ 150pF/330ohm, ±25kV, 1000times



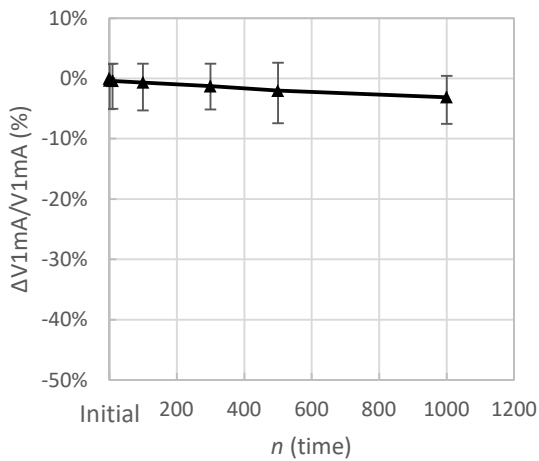
ESD Discharge

▶ 150pF/330ohm, ~±30kV, 10times



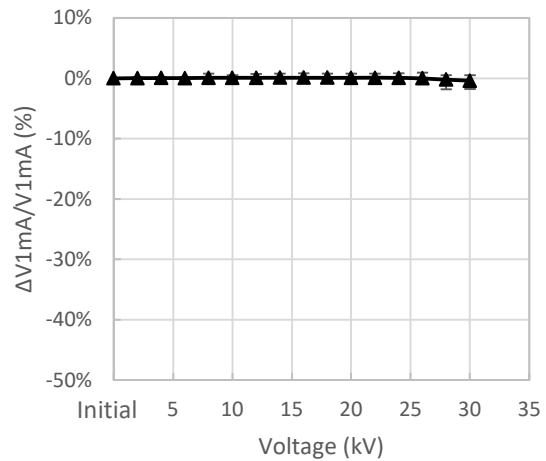
ESD Discharge

▶ 330pF/2000ohm, ±25kV, 1000times



ESD Discharge

▶ 330pF/2000ohm, ~±30kV, 10times



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