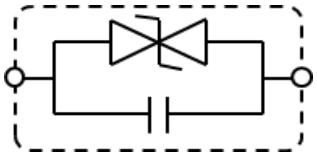
Multilayer Chip Varistor : AVRM1608C390KT271N

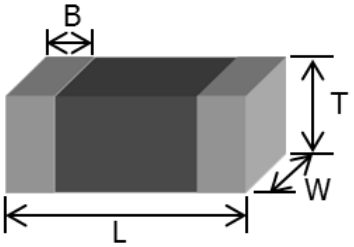
Features

- Automotive (AEC-Q200) grade
- Size : EIA0603 (1.6x0.8mm)
- Excellent ESD clamp characteristics
- High ESD durability : IEC61000-4-2, Contact 25kV
- Operating temperature range : -55℃ ～ 150℃

Equivalent Circuit



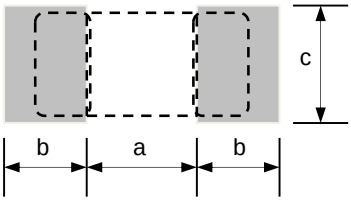
Shapes & Dimensions



Unit / mm

EIA	L	W	T	B
0603	1.6±0.1	0.8±0.1	0.8±0.1	0.2 Min.

Recommended PCB Pattern



Unit / mm

EIA	a	b	c
0603	0.6 to 0.8	0.6 to 0.8	0.6 to 0.8

Product Identification

AVRM	1608	C	390	K	T	271	N
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

(1)	Series name / AVRM
(2)	Dimension / 1608:1.6x0.8(mm)
(3)	Structure
(4)	Varistor voltage / 390:39x10^0(V)
(5)	Varistor voltage tolerance / K : ±10(%)
(6)	Packaging scheme / T : Taping
(7)	Capacitance / 271:27x10^1(pF)
(8)	Capacitance tolerance / N : ±30(%)

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	1kHz、1Vrms
		Max.	Typ.		Max.	Typ.	Max.	Typ.
	V1mA	Vdc	Vcl	Icl	E	Ppp	Ip	C
	(V)	(V)	(V)	(A)	(Joule)	(W)	(A)	(pF)
AVRM1608C390KT271N	39(35~43)	28	69	2	0.1	200.3	78	270(189~351)

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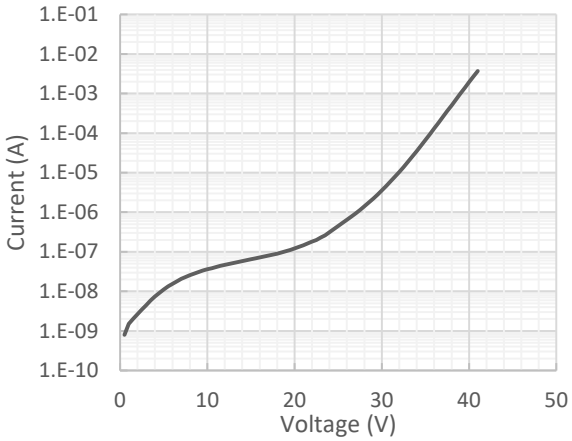
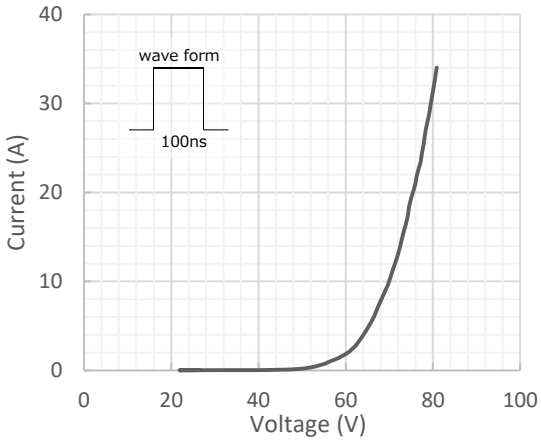
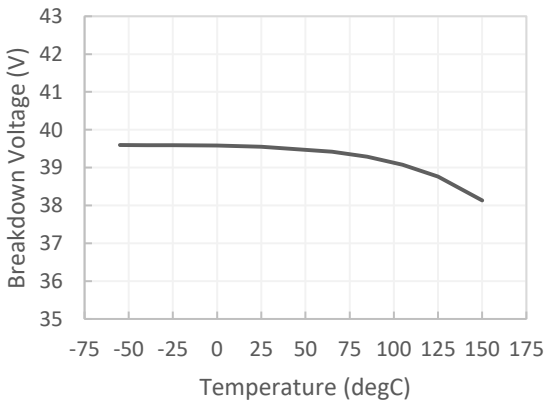
Current - Voltage



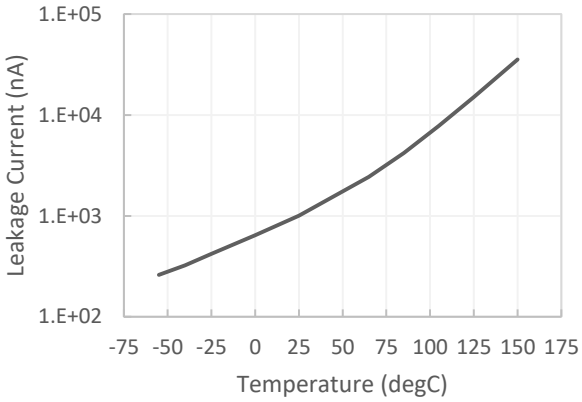
Current - Voltage (TLP)



Breakdown Voltage - Temp.



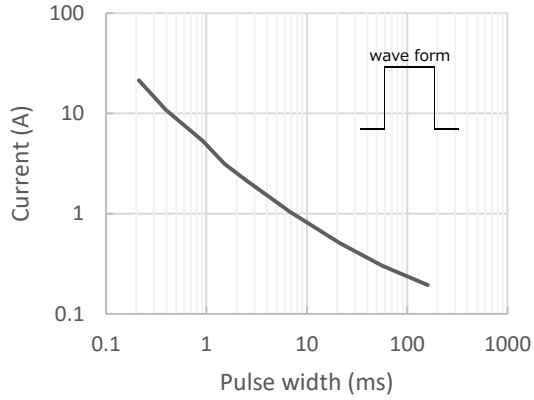
Leakage current - Temp.



※ Voltage : 28 V

Durability of Pulse Current

(Typ. values)



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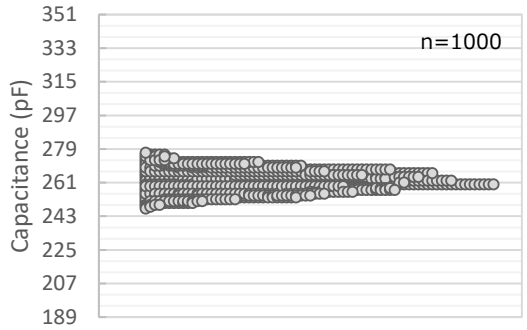
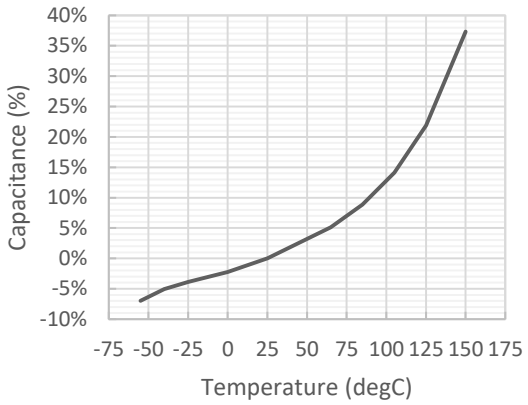
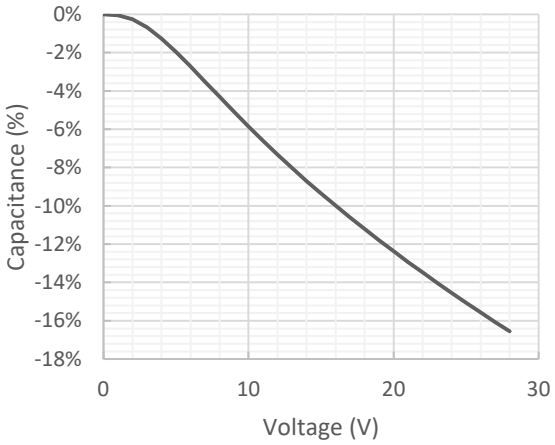
Capacitance Dispersion ※1kHz, 1Vrms



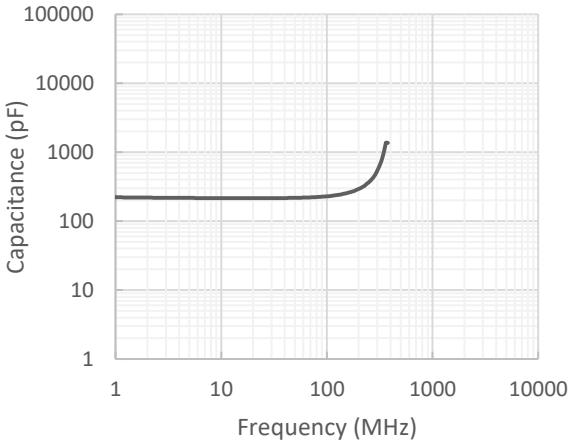
Capacitance - Temp. ※1kHz, 1Vrms



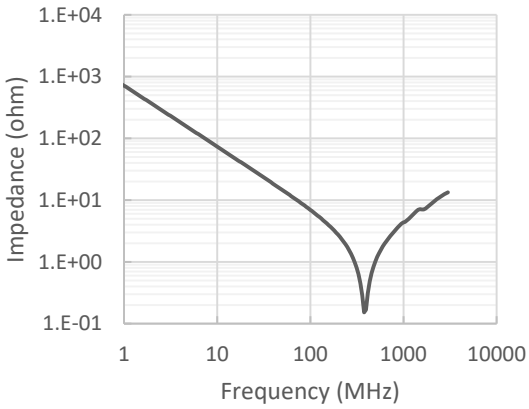
DC bias ※1MHz , 1Vrms



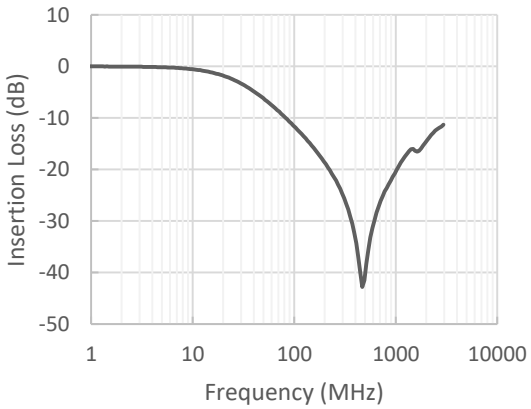
Capacitance - Freq.



Impedance - Freq.



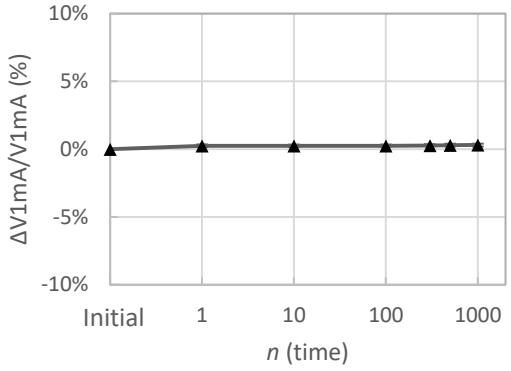
Insertion Loss



Multilayer Chip Varistor : AVRM1608C390KT271N

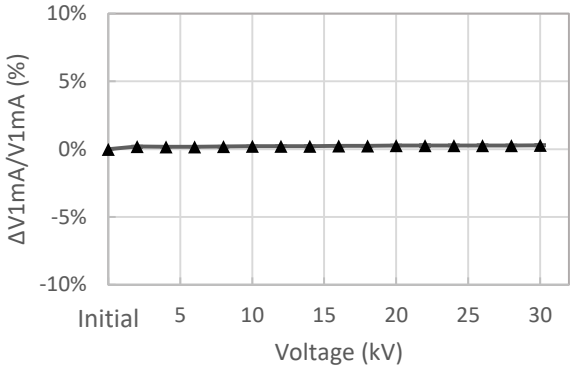
ESD Discharge

▶ 150pF/330ohm, ±25kV, 1000times



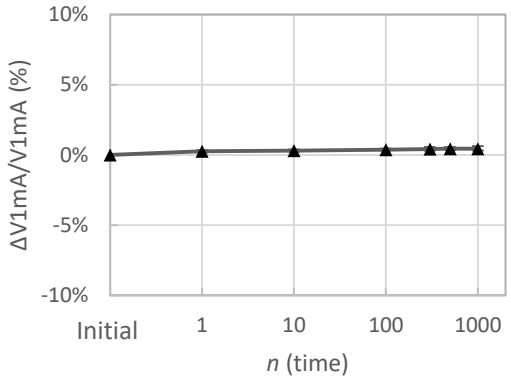
ESD Discharge

▶ 150pF/330ohm, ~±30kV, 10times



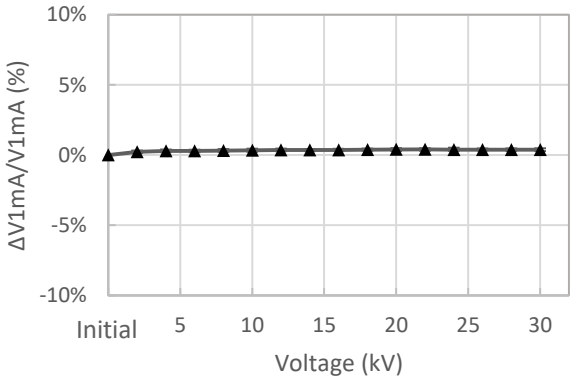
ESD Discharge

▶ 330pF/2000ohm, ±25kV, 1000times



ESD Discharge

▶ 330pF/2000ohm, ~±30kV, 10times



※Criteria : ΔV1mA/V1mA ≦ 10 %