

# EIA0402 Multilayer Chip Varistor

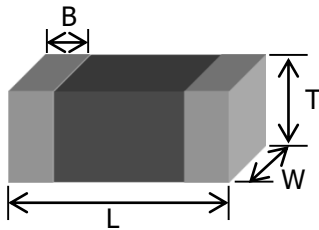
## Features

- EIA0402 (1.0x0.5mm) chip size.
- Excellent ESD clamp characteristics that is very superior to the present products.
- High ESD durability (Based on IEC61000-4-2, Contact-8kV)

## Applications

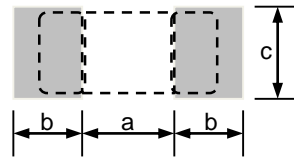
- Automotive Signal Line
- Ethernet

## 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



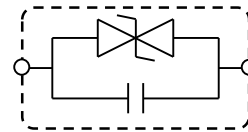
Unit / mm			
EIA	a	b	c
0402	0.3 to 0.5	0.35 to 0.45	0.4 to 0.6

## 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 (H = High Reliability)
(2)	Dimension / 10 : 1.0 x 0.5 (mm)
(3)	Structure
(4)	Varistor voltage 101 : 100 (V)(Based on OA EMC Test Spec.)
(5)	Varistor voltage tolerance / K : ± 10 (%)
(6)	Packaging scheme / T : Taping
(7)	Capacitance / 1R1 : 1.1 (pF)
(8)	Capacitance tolerance / N : ± 0.3 (pF)
(9)	ESD durability grade / E : 8kV (IEC61000-4-2 HBM)
(10)	Operating temperature / 8 : 150 (°C)

## Equivalent Circuit

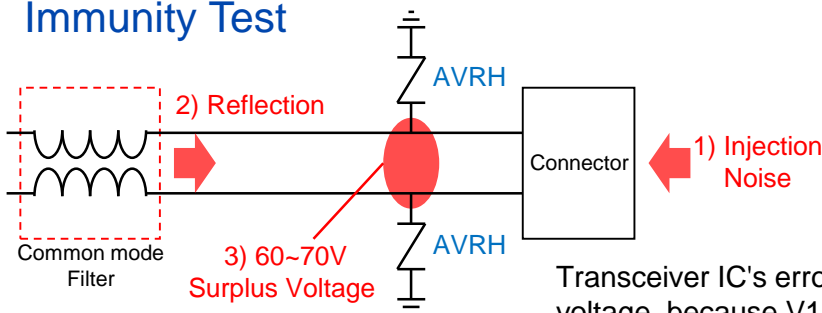


## Electrical Characteristics

Electrical characteristic is draft value.  
 There is a possibility of changing the Part No. etc.

Part No.	Rated Voltage (Vdc) (V)	Varistor Voltage (V1mA) (V)	Capacitance (C1MHz) (pF)	Leakage Current (at Vdc) (µA)
EIA0402(1005mm)				
AVRH10C101KT1R1NE8	70 Max.	110(100-120)	1.1 (0.8-1.4)	1

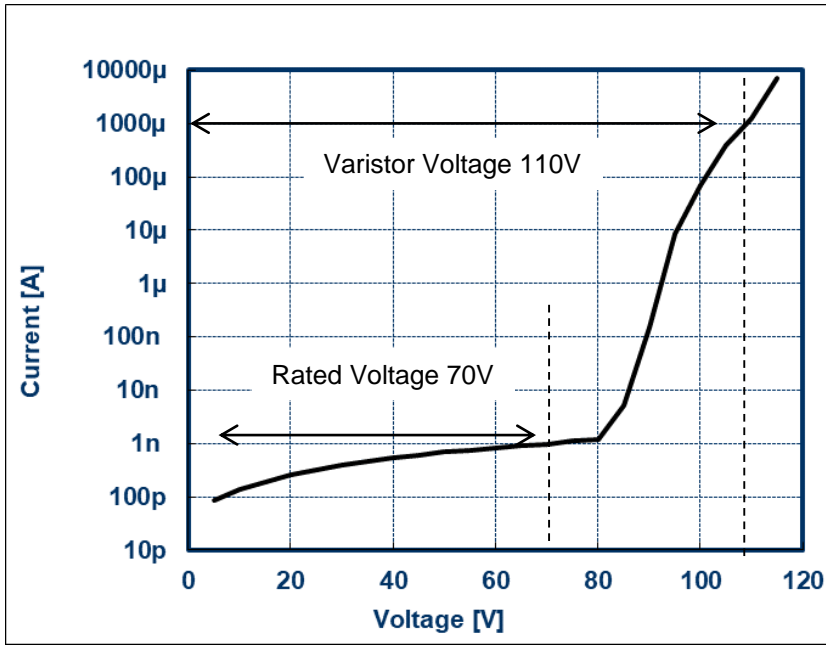
## Immunity Test



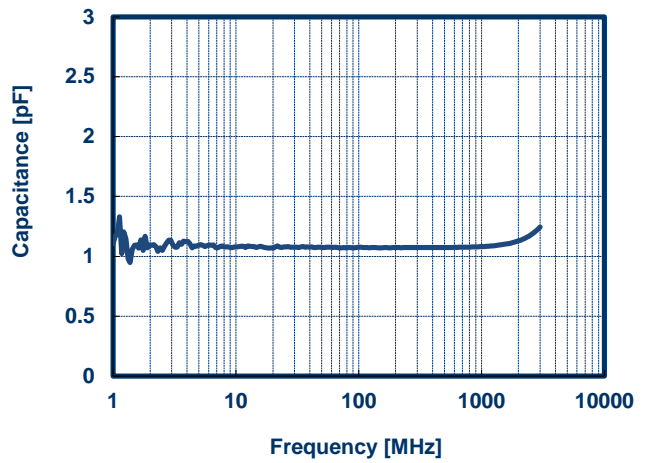
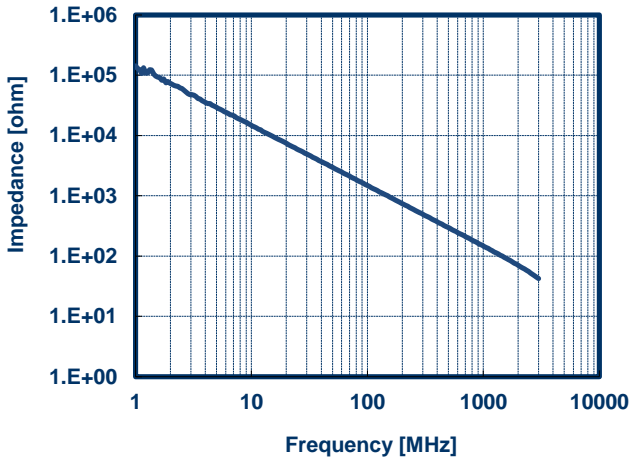
Transceiver IC's error doesn't occur by the surplus voltage, because V1mA value is set to 100V

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## Current vs. Voltage Curve



## Frequency Characteristics



## Transmission Characteristics

