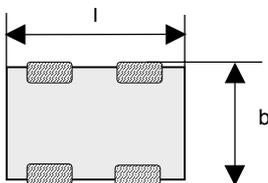


Preliminary data sheet

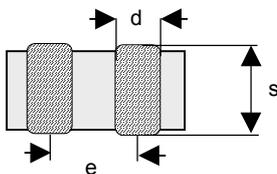
(parameters may be changed if necessary)

Designation System

- CA = **C**hip **A**rray
 04 = Dimensions of the device **04x05** (Length x width in 1/100 inch)
 P = Design (**P**arallel internal structure)
 2 = Number of elements
 S = Special Tolerance of the varistor voltage
 14 = Max. operating voltage
 T = **T**hree layer termination (Ni-barrier)
 HS = Designed for protection of **H**igh **S**peed data lines
 G = Taped version, cardboard tape, 7" reel (5000 pcs/reel)

Figure


$$\begin{aligned}
 l &= 1,37 \pm 0,15 \\
 b &= 1,0 + 0 / -0,15 \\
 s &= 0,70 \text{ max.} \\
 d &= 0,36 \pm 0,1 \\
 e_{\text{Ref}} &= 0,64
 \end{aligned}$$



(All dimensions in mm)

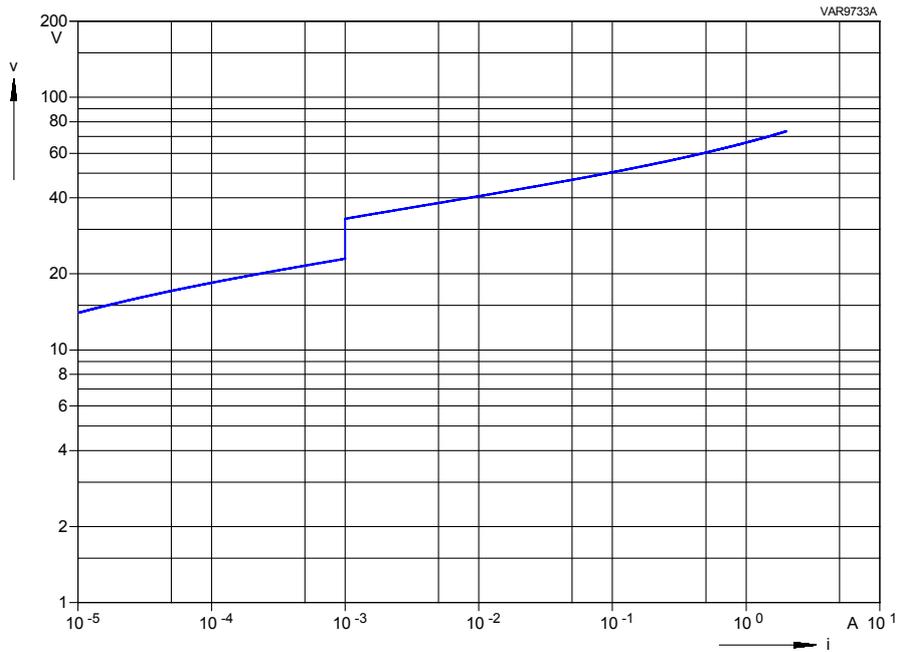
As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies. The information describes the type of component and shall not be considered as assured characteristics. Terms of delivery and rights to change design reserved.

ISSUE DATE	08.07.02	ISSUE	c	PUBLISHER	KB VS PE	PAGE	1/7
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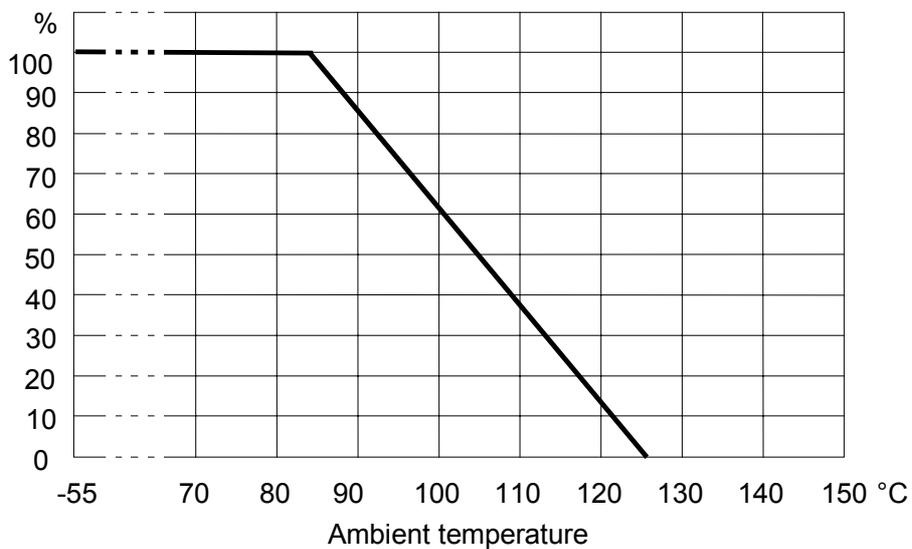
Preliminary data sheet

(parameters may be changed if necessary)

V-I-Characteristic



Max. current, energy, operating voltage and average power dissipation depending on ambient temperature





Preliminary data sheet

(parameters may be changed if necessary)

Electrical Data

Max. operating voltage

RMS voltage

$V_{eff} = 14 \text{ V}$

DC voltage

$V_{DC} = 16 \text{ V}$

Varistor voltage (@ 1 mA)

$V_V = 23 - 33 \text{ V}$

Max. clamping voltage (@ 1 A)

$V_C = 66 \text{ V}$

Max. average power dissipation

$P_{max} = 3 \text{ mW}$

Max. surge current (8/20 μs)

$\hat{I}_{max} = 1 \times 2 \text{ A}$

Max. energy absorption (ESD)

$E_{max} = 30 \text{ mJ}$

(@ ESD acc. IEC61000-4-2;

15kV Air Discharge, 150pF, 330 Ω)

Capacitance

$C = 10 \text{ pF}^1$

¹measured @ 1 MHz, 1 V, 25°C, typical value

Response time

$< 0.5 \text{ ns}$

Operating temperature

$-40 \dots +85 \text{ }^\circ\text{C}$

Storage temperature (mounted parts)

$-40 \dots +125 \text{ }^\circ\text{C}$

Termination material

Ag/Ni/Sn

(thickness not specified, adjusted to fulfill wettability specification acc. to IEC 60068-2-58)

Application Note

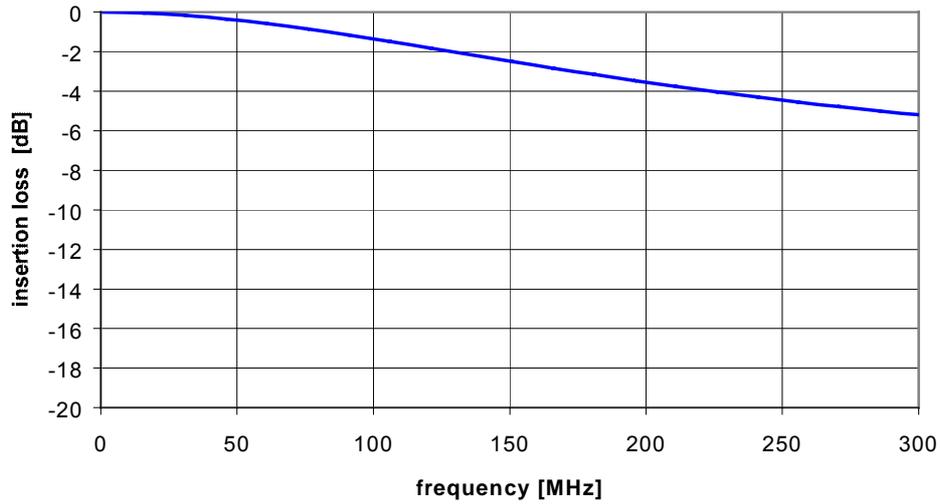
The described component is designed to meet ESD level 4 requirements acc. IEC61000-4-2 (8kV contact discharge 150pF, 330 Ω).

ISSUE DATE	08.07.02	ISSUE	c	PUBLISHER	KB VS PE	PAGE	3/7
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Preliminary data sheet

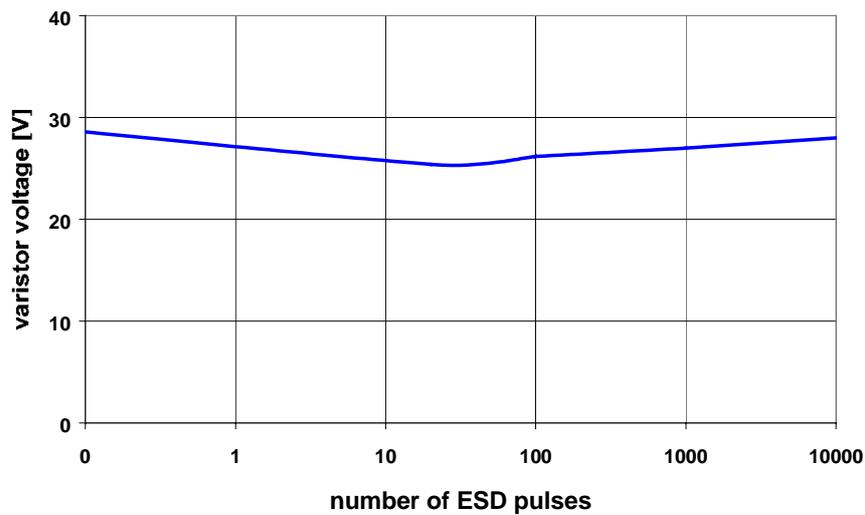
(parameters may be changed if necessary)

Signal Insertion Loss¹



¹typical values; measured with network analyzer HP8753 E/S containing s-parameter test set

Stability to Multiple ESD-Discharges²



²(8kV contact discharge; 150pF, 330 Ω ; acc. IEC 61000-4-2).

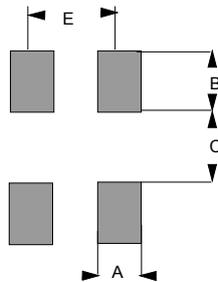
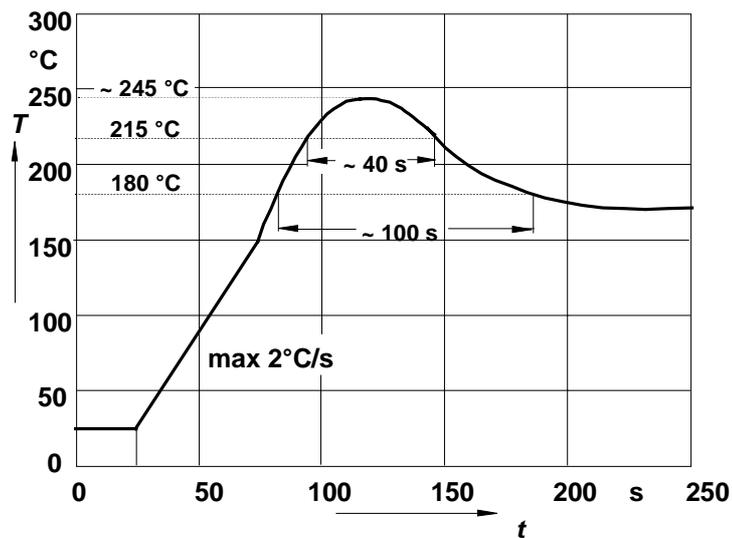
ISSUE DATE	08.07.02	ISSUE	c	PUBLISHER	KB VS PE	PAGE	4/7
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Preliminary data sheet

(parameters may be changed if necessary)

Recommended Geometry of Solder Pads

A = 0,4 mm
 B = 0,55 mm
 C = 0,28 mm
 E = 0,64 mm


Recommended Soldering Temperature Profiles


This component is suited for IR-soldering.

Max. reflow cycles: 2x

As far as possible, the components shall be employed within 6 months. They should be left in their original packings to avoid soldering problems due to oxidized contacts.

Storage temperature: -25 to 45°C.

Relative humidity: <75% annual average, <95% on max. 30 days in a year.

The usage of mild, non activated fluxes for soldering is recommended, as well as proper cleaning of the PCB.

ISSUE DATE	08.07.02	ISSUE	c	PUBLISHER	KB VS PE	PAGE	5/7
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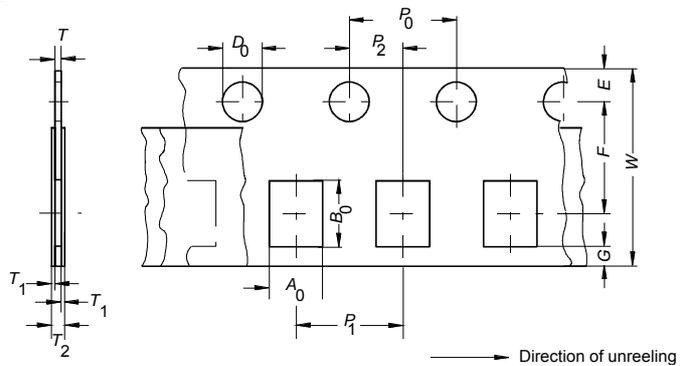
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Taping According to IEC 60286-3

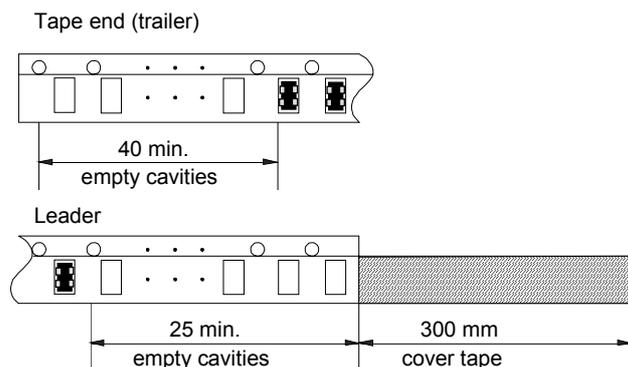
Dimensions and tolerances

Tape material: cardboard



Definition	Symbol	Dim.	Tolerance
Compartment width	A ₀	1.05	± 0.05
Compartment length	B ₀	1.57	± 0.05
Sprocket hole diameter	D ₀	1.5	+0.1 /-0
Sprocket hole pitch	P ₀	4.0	± 0.1 ¹⁾
Distance center hole to center compartment	P ₂	2.0	± 0.05
Pitch of the component compartments	P ₁	4.0	± 0.1
Tape width	W	8.0	± 0.3
Distance edge to center of hole	E	1.75	± 0.1
Distance center hole to center compartment	F	3.5	± 0.05
Distance compartment to edge	G	0.75	min.
Thickness of cardboard tape	T	0.75	± 0.2
Overall thickness	T ₂	0.9	max.

¹⁾ ≤ ± 0.2 mm over any 10 pitches



Preliminary data sheet

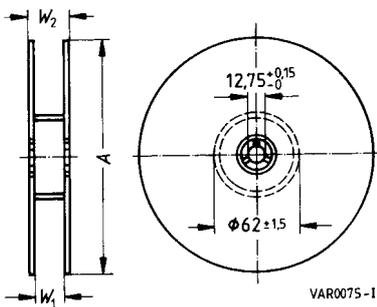
(parameters may be changed if necessary)

Package

Each reel in airtight plastic bag with desiccant bag.
 Dimensions approx. 220 x 200 mm. Weight approx. 170 g

Package: 8 mm tape

Reel material: plastic



Definition	Symbol	Dim.	Tol.
Reel diameter	A	180	-2
Reel width (inside)	W_1	8.4	+1.5 /-0
Reel width (outside)	W_2	14.4	max.

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ISSUE DATE	08.07.02	ISSUE	c	PUBLISHER	KB VS PE	PAGE	7/7
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