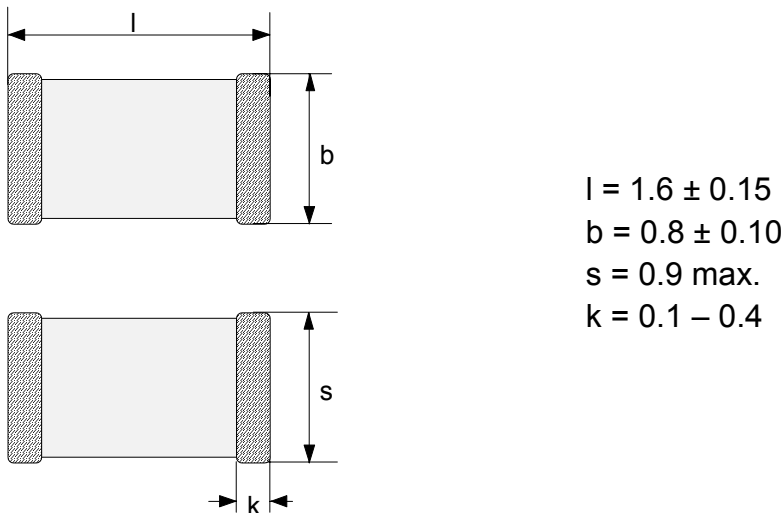


Designation system

- CT = **C**hip with **t**hree-layer-termination (Ag/Ni/Sn)
 0603 = Dimensions of the device **06 x 03** (length x width in 1/100 inch)
 L = Tolerance of the varistor voltage ($\pm 15\%$)
 25 = Maximum operating voltage (RMS voltage)
 HS = Designed for protection of **h**igh **s**peed data lines
 G = Taped version (cardboard tape, 7" reel, 4000 pieces/reel)

Figure

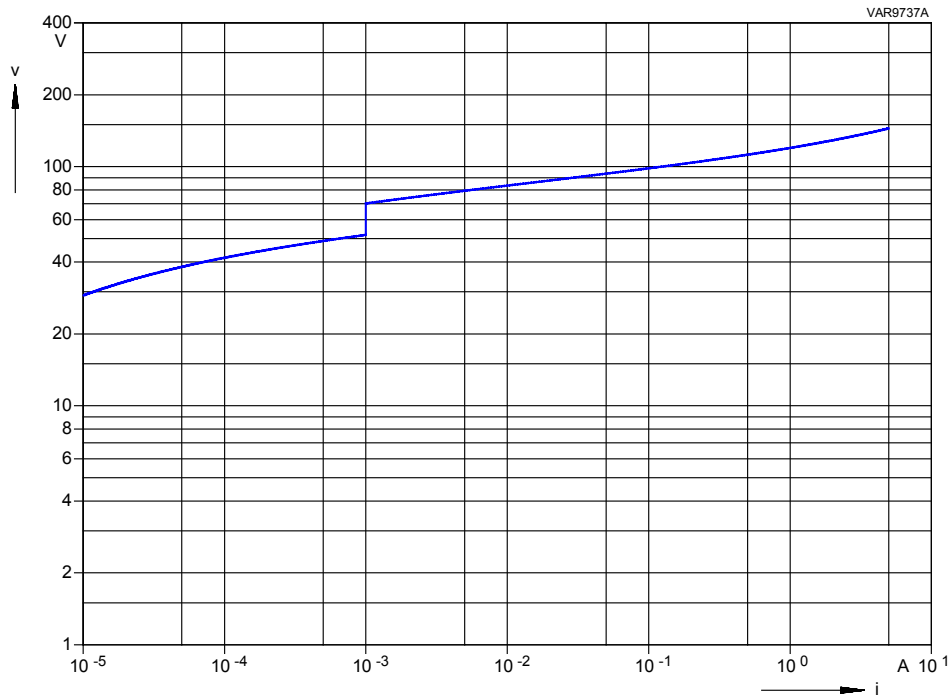


(all dimensions in mm)

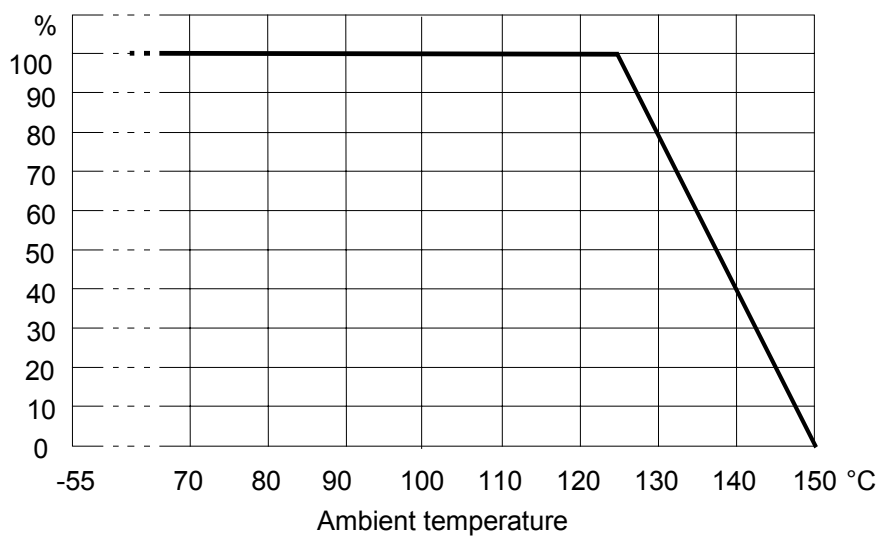
As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies. The information describes the type of component and shall not be considered as assured characteristics.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

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V-I-characteristic



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



Electrical data

Maximum operating voltage

RMS voltage

$V_{RMS} = 25 \text{ V}$

DC voltage

$V_{DC} = 32 \text{ V}$

Varistor voltage (@ 1 mA)

$V_V = 51.9 \text{ up to } 70.1 \text{ V}$

Maximum clamping voltage (@ 1 A)

$V_C = 120 \text{ V}$

Maximum surge current (8/20 μs)

$I_{max} = 1 \times 5 \text{ A}$

Maximum energy absorption (ESD)

$E_{max} = 50 \text{ mJ}$

(@ ESD according to ISO TR10605, 25 kV air discharge, 150 pF, 2 k Ω)

Capacitance (@ 1 MHz, 1 V, 25 °C, typ.)

$C = 10 \text{ pF}$

Response time

$< 0.5 \text{ ns}$

Operating temperature

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

Storage temperature (mounted parts)

$-40 \dots +150 \text{ }^\circ\text{C}$

Termination material

Ag/Ni/Sn

(thickness not specified, adjusted to fulfil wettability specification according to **IEC 60068-2-58**)

Complies with following ESD standards:

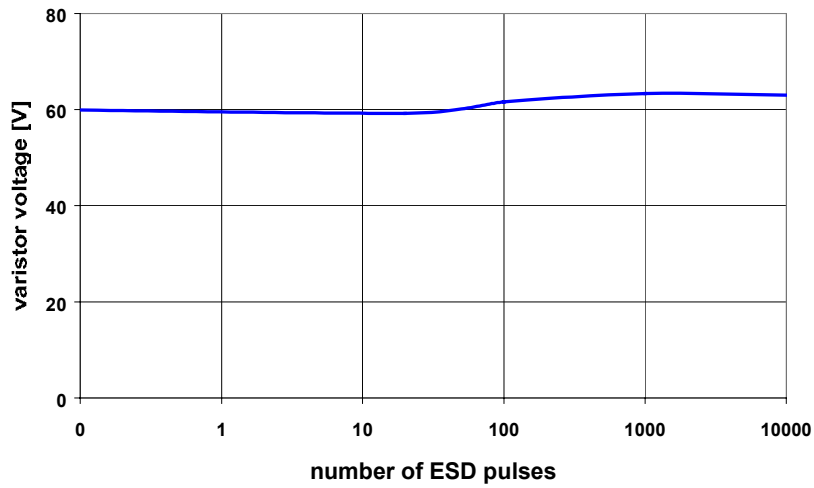
IEC 61000-4-2 level 4 (8 kV contact, 15 kV air discharge)

ISO TR10605 level 4 (25 kV air discharge)

AEC Q200 002 level 6 (25 kV air discharge)

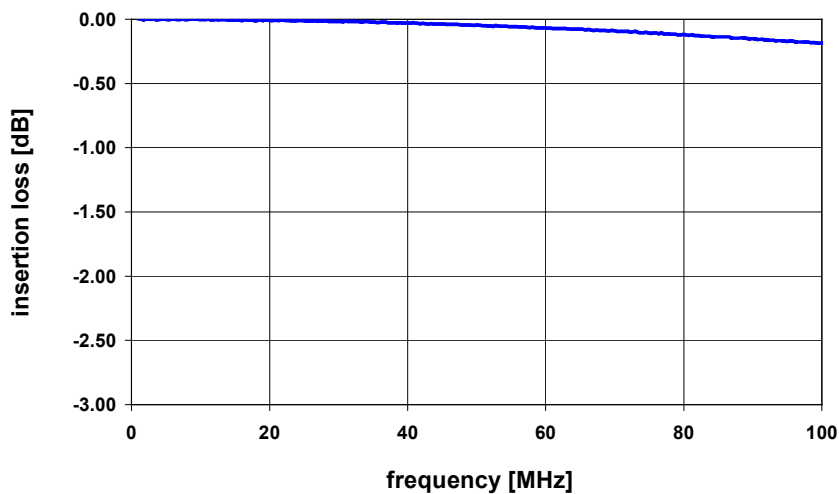
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Stability to multiple ESD pulses¹⁾



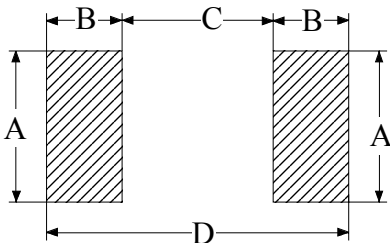
¹⁾ 15 kV air discharge, 150 pF, 330 Ω, according to IEC 61000-4-2

Signal insertion loss²⁾



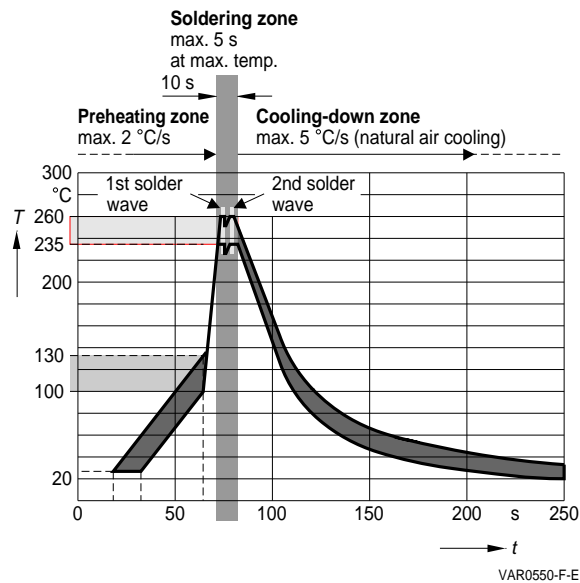
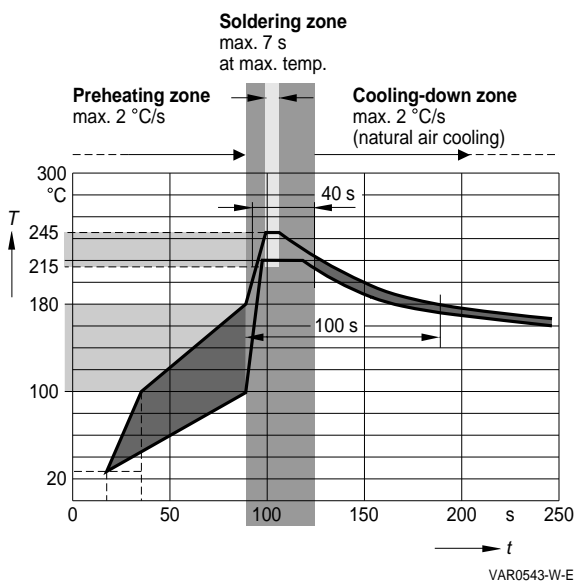
²⁾ typical values, measured with network analyzer HP8753 E/S containing S-parameter test set

Recommended geometry of solder pad



A = 1.0 mm
 B = 1.0 mm
 C = 1.0 mm
 E = 3.0 mm

Recommended soldering temperature profile



This component should be soldered within 12 months after delivery from EPCOS. They should be left in their original packings to avoid soldering problems due to oxidized terminals.
 Storage temperature: -25 to 45 °C
 Relative humidity: < 75% annual average, < 95% on maximum 30 days in a year.

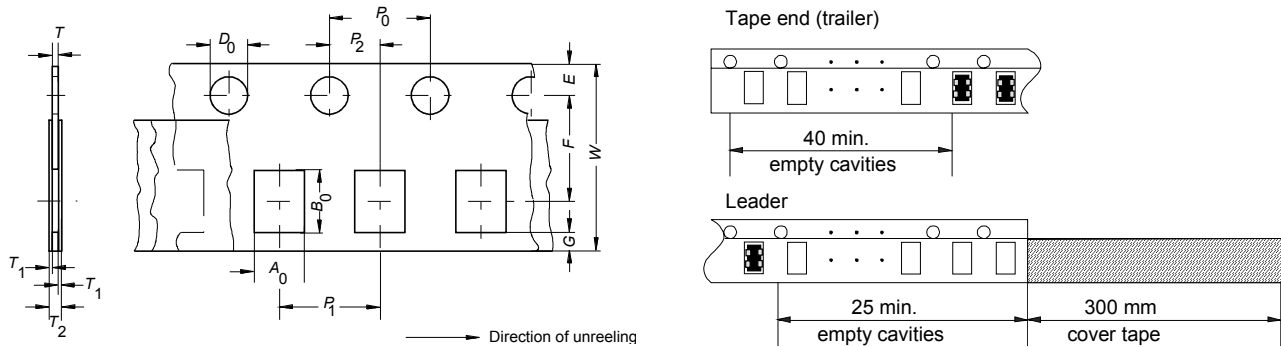
The usage of mild non-activated fluxes for soldering is recommended, as well as proper cleaning of the PCB.

The components are suited for Pb-free soldering.

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Taping according to IEC 60286-3

Tape material: cardboard



Dimensions and tolerances:

Definition	Symbol	Dimension [mm]	Tolerance [mm]
Compartment width	A_0	0.95	± 0.2
Compartment length	B_0	1.8	± 0.2
Sprocket hole diameter	D_0	1.5	± 0.1
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	0.9	max.
Overall thickness	T_2	1.1	max.

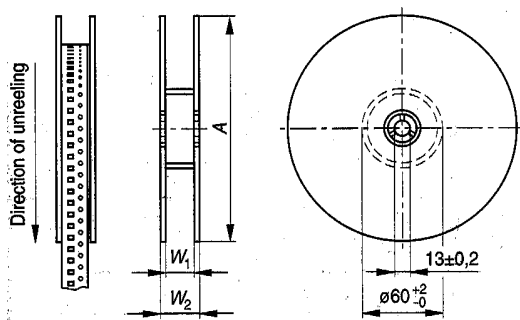
¹⁾ $\leq \pm 0.2$ mm over any 10 pitches

Packing

Reel material: plastic

Packing unit: 4000 pcs./reel

Reel dimensions:



Definition	Symbol	Dimension [mm]	Tolerance [mm]
Reel diameter	A	180	+0/ -3
Reel width (inside)	W_1	8.4	+1.5/ -0
Reel width (outside)	W_2	14.4	max.

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