EPCOS

Metal Oxide Varistor **CA06P4S17TLCG**

SMD Multilayer Varistor Array with Ni barrier Termination **B72724A2170S162**

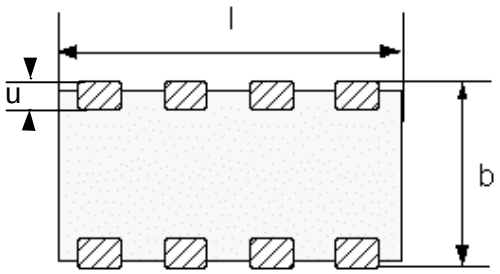
Preliminary data sheet

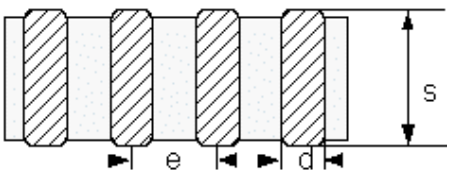
(parameters may be changed if necessary)

Designation System:

CA = **C**hip **A**rray
06 = Dimensions of the device **06**x12 (Length x width in 1/100 inch)
P = Design (**P**arallel internal structure)
4 = Number of elements
S = **S**pecial tolerance of the varistor voltage
17 = Max. operating voltage
T = **T**hree-layer-termination
LC = **L**ow **C**apacitance
G = Taped version (blister tape, 7” reel, 3000 pieces/reel)

Figure:





l = 3,2 ± 0,2
b = 1,6 ± 0,15
s = 0,9 max.
d = 0,4 ± 0,15
e = 0,8 ± 0,15
u = 0,2 ± 0,1

(All dimensions in mm)

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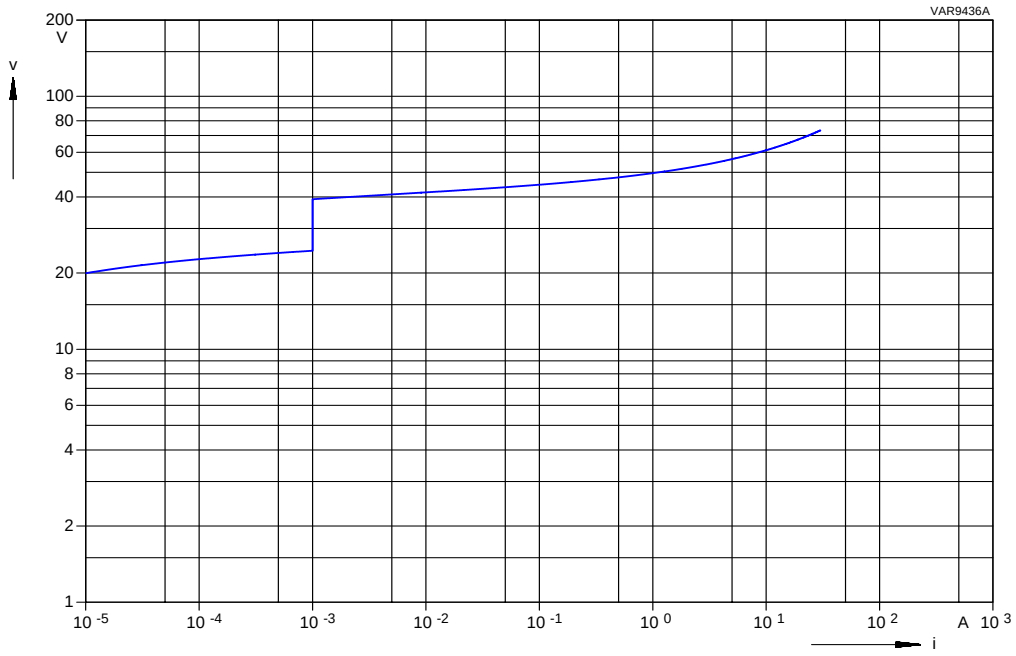
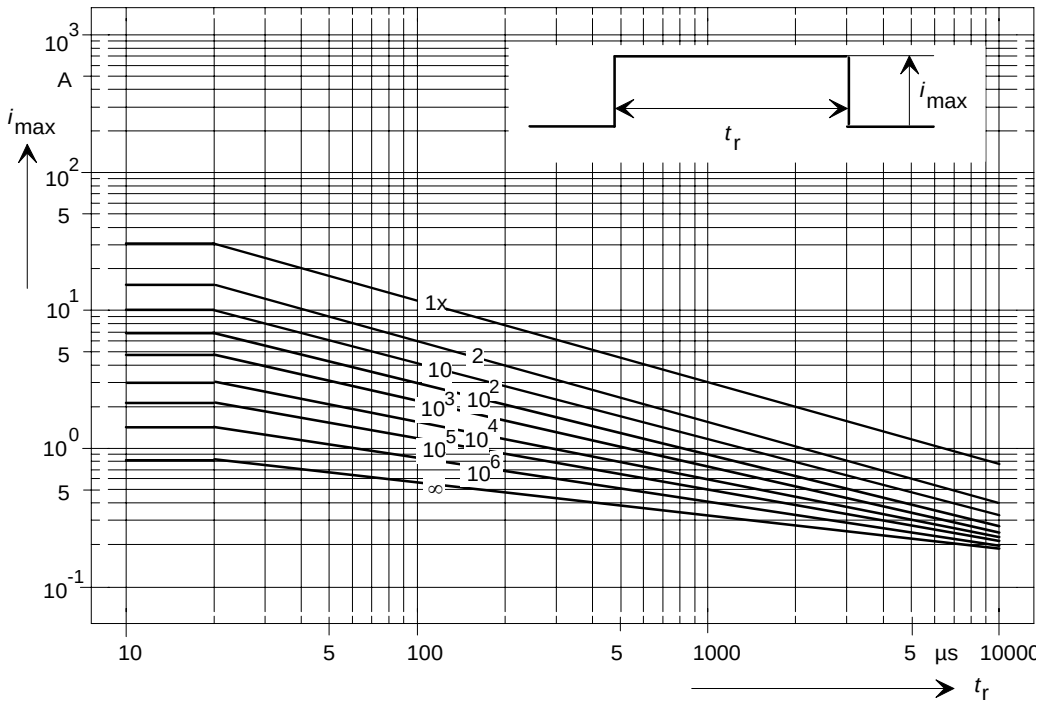
V-I-Characteristic:



Derating field:



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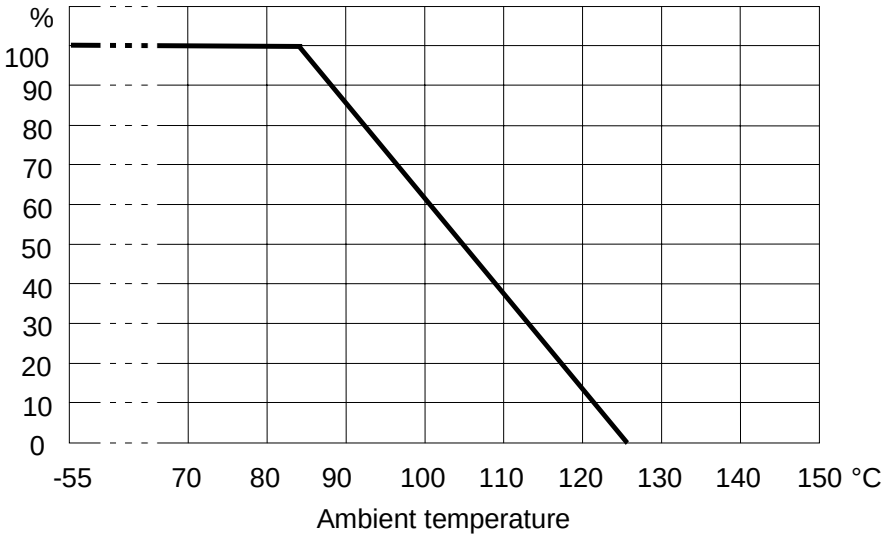
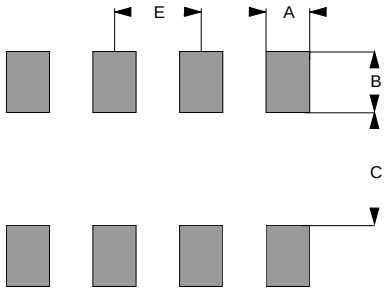
Electrical Data

Max. operating voltage	
RMS voltage	**V_{eff} = 17 V**
DC voltage	**V_{DC} = 22 V**
Varistor voltage (@ 1 mA)	**V_V = 25 - 40 V**
Max. clamping voltage (@ 1 A)	**V_C = 50 V**
Max. average power dissipation	**P_{max} = 3 mW**
Max. surge current (8/20 µs)	**$\hat{I}_{max}$ = 1 x 30 A**
Max. energy absorption (2 ms)	**E_{max} = 1 x 0.075 J**
Capacitance (@ 1MHz, 0.5 V)	**< 75 pF**
Response time	**< 0.5 ns**
Operating temperature	**-40 ... +85 °C**
Storage temperature (mounted parts)	**-40 ... +125 °C**

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

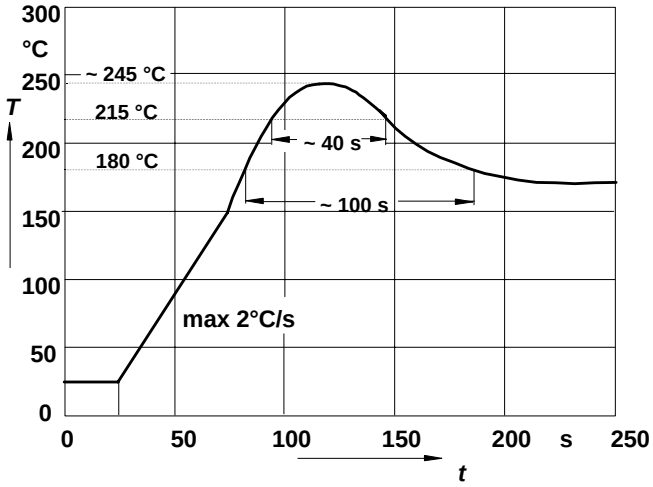


Recommended Geometry of Solder Pads



A = 0,5 mm
B = 0,7 mm
C = 1,2 mm
E = 0,8 mm

Recommended Soldering Temperature Profiles



The components should be soldered within 12 months after delivery from EPCOS. The parts are to be left in the original packing in order to avoid any soldering problems caused by oxidized terminals.
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.

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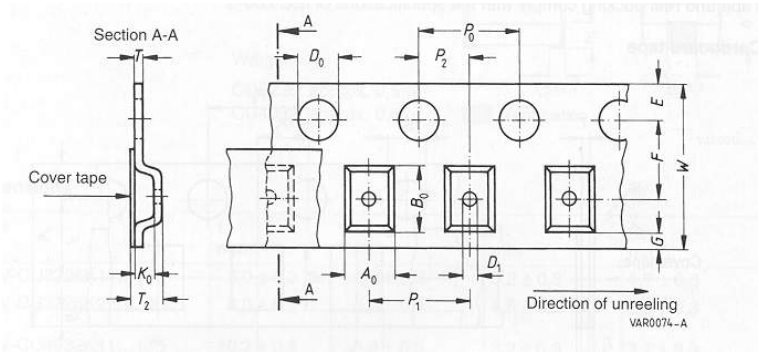
Taping and Packaging:

Taping: Tape and reel packing according to IEC 60286-3

Tape material: Blister

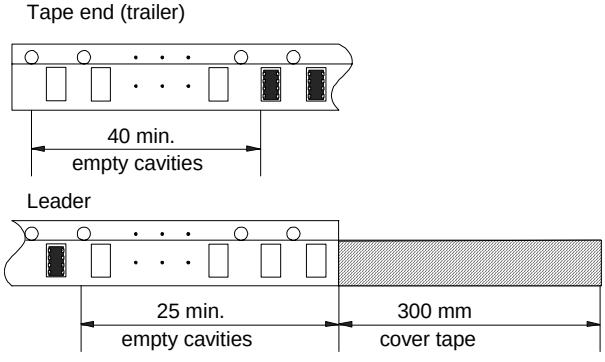


Dimensions and tolerances:

Definition	Symbol	Dimension [mm]	Tolerance [mm]
Compartment width	A_0	1.9	± 0.2
Compartment length	B_0	3.5	± 0.2
Compartment height	K_0	1.3	max.
Sprocket hole diameter	D_0	1.5	+0.1 /-0
Compartment hole diameter	D_1	1.0	min.
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.
Overall thickness	T_2	2.5	max.
Thickness tape	T	0.3	max.

1) ≤ ± 0.2 mm over any 10 pitches

Package: 8 mm tape:



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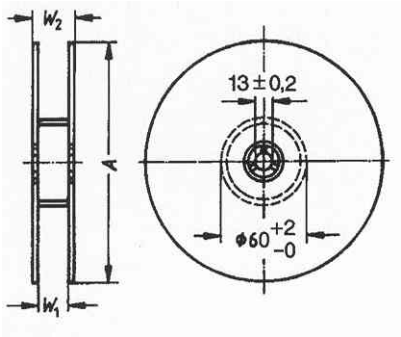
Packing material: Plastic



Reel Dimensions:

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

Packing unit: 3000 pcs / reel