

SMD Varistors

Monolithic; Telecom Series



Construction

- Cylindrical varistor element, encapsulated
- Encapsulation: thermoplast, flame-retardant to UL 94 V-0
- Termination: tinned copper alloy

Features

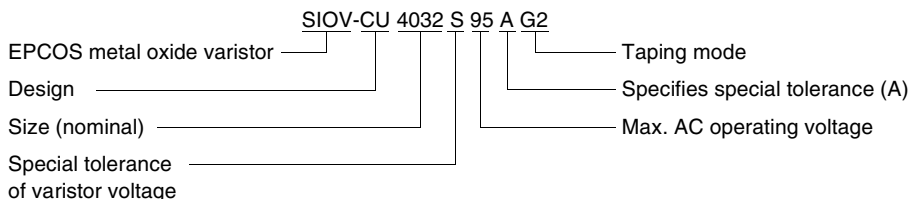
- Suitable for handling the increased surge voltage of 2 kV according to the directives of Germany's telecom administration
- Suitable for handling the surge current of the 10/700 μ s pulse to ITU-T and IEC 61000-4-5
- Matched to line conditions with or without superimposed ringing voltage
- Electrical equivalents to leaded telecom types
- Good solderability
- PSpice models

Taping

- Supply on 8/12-mm tape, for tape dimensions see pages 154/155, for reel dimensions and packing units see page 157, chapter "SMD Varistors: Taping"

Type designation

Detailed description of coding system on page 39, chapter "General Technical Information"



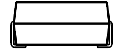
General technical data

Climatic category	40/85/56	in accordance with IEC 60068-1
LCT	– 40 °C	
UCT	+ 85 °C	
Damp heat, steady state (93 % r.h., 40 °C)	56 days	in accordance with IEC 60068-2-3
Operating temperature	– 40 ... + 85 °C	in accordance with CECC 42 000
Storage temperature	– 40 ... + 125 °C	
Electric strength	≥ 2,5 kV	in accordance with CECC 42 000
Insulation resistance	≥ 1,0 GΩ	in accordance with CECC 42 000
Response time	< 10 ns	
Solderability	235 °C, 2 s	in accordance with IEC 60068-2-58
Resistance to soldering heat	260 °C, 10 s	in accordance with IEC 60068-2-20

Note: Consult EPCOS for consultancy if solvents on water-base are used for cleaning.

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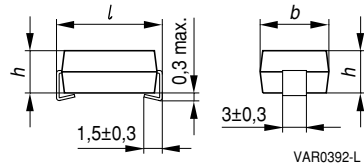
Maximum ratings ($T_A = 85\text{ °C}$)

Type	Ordering code	V_{RMS} V	V_{DC} V	i ($10 \times$ 10/700 μ s A ¹⁾)	i_{max} 8/20 μ s A	W_{max} (2 ms) J	P_{max} W
SIOV-							
CU4032S60AG2	B72660M0600S172	60	85	45	1200	4,8	0,25
CU4032S95AG2	B72660M0950S172	95	125	45	1200	7,6	0,25

Characteristics ($T_A = 25\text{ °C}$)

Type	V_V (1 mA) V	ΔV_V (1 mA) %	Max. clamping voltage v i V A ¹⁾		C_{typ} (1 kHz) pF	Derating curve Page	V/I char- acteristic Page
SIOV-							
CU4032S60AG2	100	+18/-1	200	45	480	247	280
CU4032S95AG2	150	+10/-2	270	45	260	247	280

Note: In addition to the telecom varistors listed above, all varistors of the standard series can be used for telecom applications if the selection criteria are considered.



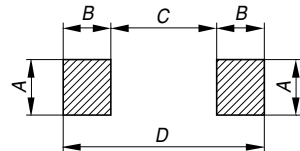
VAR0392-L

Weight: CU4032: approx. 0,8 g

Dimensions

Type	l mm	b mm	h mm
SIOV-CU4032S60...95	$10,2 \pm 0,3$	$8,0 \pm 0,3$	$3,2 \pm 0,3$

Termination: tinned copper alloy



VAR0391-D

Recommended solder pad layout

Type	A mm	B mm	C mm	D mm
SIOV-CU4032S60...95	3,5	2,8	6,5	12,1

1) The test circuit according to figure 44 in chapter "Applications" yields a surge current amplitude of approx. 45 A.

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