SMD Varistors

MLV; Telecom Series

SMD

Construction

- Multilayer technology
- Termination: nickel barrier (CT series) or silver palladium (CN series)
- No plastic or epoxy encapsulation assures better than UL 94 V-0 flammability rating

Features

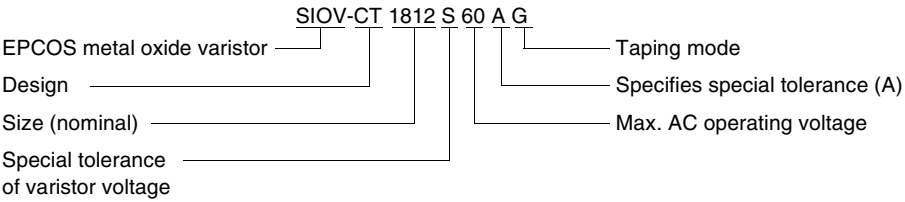
- Suitable for handling surge voltages of up to 2 kV according to the directives of Germany's telecom administration
- Suitable for handling the surge current of the 10/700 µs pulse to ITU-T and IEC 61000-4-5
- Matched to line conditions with or without superimposed ringing voltage
- Good solderability
- Suitable for ESD protection
- 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 LCT UCT Damp heat, steady state (93 % r.h., 40 °C)	55/85/56 – 40 °C + 85 °C 56 days	in accordance with IEC 60068-1 in accordance with IEC 60068-2-3
Operating temperature	– 40 … + 85 °C	in accordance with CECC 42 000
Storage temperature[1)]	– 40 … + 125 °C	
Response time	< 0,5 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 60068-2-58

1) For mounted parts (storage conditions for unused parts on reel see page 38, chapter *"General Technical Information"*)

Maximum ratings

Type	Ordering code	V_{RMS}	V_{DC}	i (10 ×) 10/700 µs	i_{max} 8/20 µs	W_{max} (2 ms)	P_{max}
SIOV-		V	V	A[1)]	A	J	W
CT1812S60AG2	B72580T0600S172	60	85	45	400	2,2	0,015
CT1812K75TELEG2	B72580T6750K072	75	100	45	400	2,5	0,015
CT1812S95AG2	B72580T0950S172	95	125	45	250	2,8	0,015
CT1812K115TELEG2	B72580T6111K072	115	150	45	250	3,2	0,015
CT1812K130TELEG2	B72580T6131K072	130	170	45	250	3,5	0,015

Characteristics (T_A = 25 °C)

Type	V_v (1 mA)	ΔV_v (1 mA)	Max. clamping voltage v	i	C_{typ} (1 kHz)	Derating curve	V/I characteristic
SIOV-	V	%	V	A[1)]	pF	Page	Page
CT1812S60AG2	100	+19/–1	200	45	400	243	273
CT1812K75TELEG2	120	± 10	250	45	320	243	273
CT1812S95AG2	150	+20/0	270	45	250	243	273
CT1812K115TELEG2	180	± 10	360	45	200	243	273
CT1812K130TELEG2	205	± 10	420	45	200	243	273

Notes

- 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.
- These telecom varistors in multilayer technology are not suitable for the operation on AC mains.

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

Maximum ratings

Type SIOV-	Ordering code	V_{RMS} V	V_{DC} V	i (10 ×) 10/700 µs A[1)]	i_{max} 8/20 µs A	W_{max} (2 ms) J	P_{max} W
CN1812S60AG2	B72580V0600S172	60	85	45	400	2,2	0,015
CN1812K75TELEG2	B72580V6750K072	75	100	45	400	2,5	0,015
CN1812S95AG2	B72580V0950S172	95	125	45	250	2,8	0,015
CN1812K115TELEG2	B72580V6111K072	115	150	45	250	3,2	0,015
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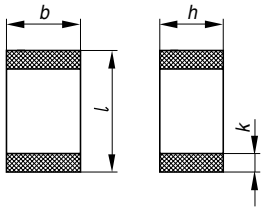


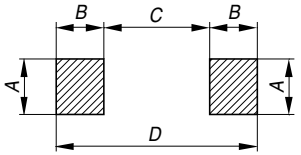
VAR0406-M

Weight: < 0,2 g
Termination acc. CECC 32101-801

Dimensions

Type	*l* mm	*b* mm	*h* mm	*k* mm
SIOV-CT/CN1812	4,5 ± 0,40	3,20 ± 0,30	2,5 max.	0,25 … 1,0

Termination: nickel barrier (CT) or silver palladium (CN)



VAR0391-D

Recommended solder pad layout

Type	*A* mm	*B* mm	*C* mm	*D* mm
SIOV-CT/CN1812	3,6	1,5	3,0	6,0

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