Construction

- Rectangular varistor element in multilayer technology, without encapsulation
- Termination: silver palladium

Features

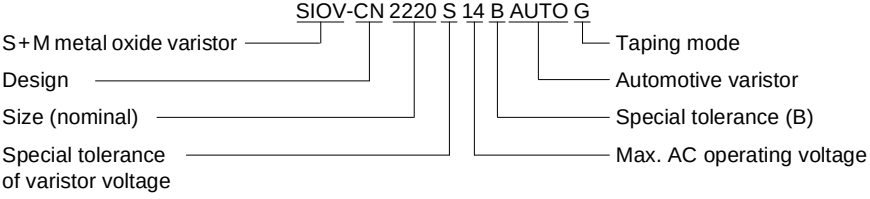
- High energy absorption, particularly in case of load dump
- Jump-start strength
- Stable protection level, minimum leakage current
- High resistance to cyclic temperature stress
- Wide range of operating temperature
- Low inductance (suitable for ESD protection)
- PSpice models

Taping

- Supply on 8/12-mm tape, for tape dimensions see page 112, for reel dimensions and packing units see page 113

Type designation

Detailed description of coding system on page 33



General technical data

Climatic category LCT UCT Damp heat, steady state (93 % r.h., 40 °C)	55/125/56 – 55 °C + 125 °C 56 days	in accordance with IEC 68-1 in accordance with IEC 68-2-3
Operating temperature	– 55 … + 125 °C	in accordance with CECC 42 000
Storage temperature	– 55 … + 150 °C	
Response time	< 0,5 ns	
Solderability	235 °C, 2 s	in accordance with IEC 68-2-58
Resistance to soldering heat	260 °C, 10 s	in accordance with IEC 68-2-20

Maximum ratings (T_A = 125 °C)

Type SIOV-	Ordering code	V_{RMS} V	V_{DC} V	i_{max} 8/20 µs A	W_{max} (2 ms) J	P_{max} W	W_{LD} (10x) J
12-V supply systems							
CN0805S14BAUTOG	Q69510-V1140-S262	14	16	120	0,3	0,008	1,0
CN1206S14BAUTOG	Q69520-V1140-S262	14	16	200	0,6	0,008	1,5
CN1210S14BAUTOG	Q69530-V1140-S262	14	16	400	1,6	0,010	3,0
CN1812S14BAUTOG	Q69580-V1140-S262	14	16	800	2,4	0,015	6,0
CN2220S14BAUTOG	Q69540-V1140-S262	14	16	1200	5,8	0,030	12,0
CN2220S14BAUTOE2G2	Q69540-V3140-S272	14	16	1200	5,8	0,030	25,0
24-V supply systems							
CN2220K30AUTOG	Q69540-V1300-K062	30	34	1200	12,0	0,030	12,0

Characteristics (T_A = 25 °C)

Type SIOV-	V_{Jump} (5 min) V	V_v (1 mA) V	ΔV_v (1 mA) %	Max. clamping voltage v V	 i A	C_{typ} (1 kHz) nF	L_{typ} nH	Der. curve Page	V/I char. Page
12-V supply systems									
CN0805S14BAUTOG	24,5	22	+23/–0	42	1,0	0,4	1,5	176	203
CN1206S14BAUTOG	24,5	22	+23/–0	40	1,0	0,8	1,8	177	203
CN1210S14BAUTOG	24,5	22	+23/–0	40	2,5	1,7	1,8	179	203
CN1812S14BAUTOG	24,5	22	+23/–0	40	5,0	5,6	2,5	180	203
CN2220S14BAUTOG	24,5	22	+23/–0	40	10,0	9,5	3,0	181	203
CN2220S14BAUTOE2G2	24,5	22	+23/–0	40	10,0	15,0	3,0	181	203
24-V supply systems									
CN2220K30AUTOG	50,0	47	± 10	77	10,0	4,0	3,0	181	202

Notes

- If the maximum loads specified for load dump and jump start are fully utilized, subsequent polarity reversal of the AUTO varistors is inadmissible.
- If the load remains under the maximum ratings, polarity reversal may be admissible. Contact S+M Components for consultancy on this kind of problem.
- Load dump or jump start can decrease the varistor voltage in load direction by max. 15 %.
- Load dump: min. time of energy input 30 ms, interval 60 s.