

EPCOS Sample Kit 2017

Ceramic Transient Voltage Suppressors

CTVS Multilayer Varistors for Surge Protection



Protection against ESD and high energy transients

The surge protection series comprises a range of multilayer varistors for protection against severe transient overvoltage and high surge currents, such as 8/20 μ s pulses with peak currents up to 6000 A.

Features

- High surge load capability acc. to IEC 61000-4-5
- Reliable ESD protection up to 30 kV acc. to IEC 61000-4-2, level 4
- High surge voltage capability up to 2 kV for 10/700 μ s acc. to IEC 61000-4-5
- Bidirectional protection
- Low leakage current
- Long-term ESD stability
- UL approval to UL1449 (file number E481997)
- RoHS-compatible, lead-free
- PSpice simulation models available

Applications

- Industrial applications
- Building safety and security applications
- Power supplies
- Control and measurement equipment
- PoE (Power over Ethernet)

Design

- Multilayer chip technology
- Termination:
 - CT types with nickel barrier terminations (AgNiSn), recommended for lead-free soldering, and compatible with tin/lead solder
 - CN types with silver-platin termination (AgPt) for reflow and wave soldering with solder on tin/lead basis or lead-free with a silver containing solder

More details and applications under www.epcos.com/ctvs

Important information: Some parts of this publication contain statements about the suitability of our products for certain areas of application. These statements are based on our knowledge of typical requirements that are often placed on our products. We expressly point out that these statements cannot be regarded as binding statements about the suitability of our products for a particular customer application. It is incumbent on the customer to check and decide whether a product is suitable for use in a particular application. This publication is only a brief product survey which may be changed from time to time. Our products are described in detail in our data sheets. The *Important notes* (www.epcos.com/ImportantNotes) and the product-specific *Cautions and warnings* must be observed. All relevant information is available through our sales offices.

Components

B72520 T0110K062	B72530 E0140K062	B72530 T6500K062	B72530 T0600K062	B72580 T0500K062	B72540 E0300K062	B72540 T6300K062	B72542 V6300K062
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B72540 E0400K062	B72540 T0500K062	B72540 T6500K062	B72540 T6500S162	B72542 V6500S162	B72542 V6500K062	B72540 T0600K062	B72542 V6600K062
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Electrical specifications and ordering codes

EIA case size	Ordering code	$V_{RMS, max}$ V	$V_{DC, max}$ V	$I_{surge, max}$ (8/20 μ s) A	W_{max} (2 ms) mJ
1206	B72520T0110K062	11	14	200	500
1210	B72530E0140K062	14	18	400	1500
1210	B72530T6500K062	50	65	1200	3000
1210	B72530T0600K062	60	85	200	2000
1812	B72580T0500K062	50	65	400	4500
2220	B72540E0300K062	30	38	1200	12000
2220	B72540T6300K062	30	38	5000	15000
2220	B72542V6300K062	30	38	6000	15000
2220	B72540E0400K062	40	56	1000	9000
2220	B72540T0500K062	50	65	800	5600
2220	B72540T6500K062	50	65	4500	15000
2220	B72540T6500S162	50	63	4500	15000
2220	B72542V6500S162	50	63	4500	15000
2220	B72542V6500K062	50	65	4500	15000
2220	B72540T0600K062	60	85	800	6800
2220	B72542V6600K062	60	85	4500	15000

Electrical specifications and ordering codes

EIA case size	Ordering code	$P_{\text{diss, max}}$ (2 ms) mW	V_V (1 mA) V	$V_{\text{clamp, max}}$ V	I_{clamp} (8/20 μs) A	C_{typ} (1 MHz, 1 V) pF
1206	B72520T0110K062	8	18	33	1	300
1210	B72530E0140K062	10	22	38	2.5	2000
1210	B72530T6500K062	10	82	135	2.5	1200
1210	B72530T0600K062	10	100	165	2.5	200
1812	B72580T0500K062	15	82	135	5	500
2220	B72540E0300K062	20	47	77	10	4000
2220	B72540T6300K062	20	47	77	10	10000
2220	B72542V6300K062	20	47	77	10	10000
2220	B72540E0400K062	20	68	110	10	2000
2220	B72540T0500K062	20	82	135	10	1000
2220	B72540T6500K062	20	82	135	10	3000
2220	B72540T6500S162	20	71 ... 84	115	10	8800
2220	B72542V6500S162	20	77	130	10	5000
2220	B72542V6500K062	20	82	135	10	3000
2220	B72540T0600K062	20	100	165	10	800
2220	B72542V6600K062	20	100	165	10	3000

