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# **CTVS – Ceramic transient voltage suppressors**

SMD multilayer varistors (MLVs),  
standard series

**Series/Type:**

Date: May 2017

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EPCOS AG is a TDK Group Company.

## Multilayer varistors (MLVs)

### Standard series

#### SMD

#### EPCOS type designation system for standard series

CT	0603	K	17	G
<b>Construction:</b> CT $\triangleq$ Single chip with nickel barrier termination (AgNiSn)				
<b>Case sizes:</b> 0201 0402 0603 0805 1206 1210 1812 2220				
<b>Tolerance of the varistor voltage:</b> K $\triangleq$ $\pm 10\%$ L $\triangleq$ $\pm 15\%$ M $\triangleq$ $\pm 20\%$ S, V $\triangleq$ Special tolerance				
<b>Maximum RMS operating voltage (<math>V_{RMS}</math>):</b> 17 $\triangleq$ 17 V				
<b>Taping mode:</b> G $\triangleq$ 180-mm reel, 7" G2 $\triangleq$ 330-mm reel, 13"				

## Multilayer varistors (MLVs)

### Standard series

#### SMD

#### Features

- Reliable ESD protection up to 8 kV contact discharge and 15 kV air discharge acc. to IEC 61000-4-2, level 4
- Surge current up to 1200 A
- Bidirectional protection
- Long-term ESD stability
- RoHS-compatible, lead-free
- PSpice simulation models available

#### Applications

- ESD protection in mobile phones and accessories
- ESD protection in data bus applications
- ESD protection in control electronics, lighting/ LED and medical devices
- Surge current protection in smart meters and measurement equipment
- Surge current protection in security and safety systems

#### Design

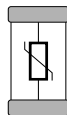
- Multilayer technology
- Flammability rating better than UL 94 V-0

#### V/I characteristics and derating curves

V/I and derating curves are attached to the data sheet. The curves are sorted by  $V_{RMS}$  and then by case size, which is included in the type designation.

#### Single chip

Internal circuit



MLV0006-H

Available case sizes:

EIA	Metric
0201	0603
0402	1005
0603	1608
0805	2012
1206	3216
1210	3225
1812	4532
2220	5750

**Multilayer varistors (MLVs)**
**Standard series**
**SMD**
**General technical data**

Maximum RMS operating voltage		$V_{RMS,max}$	4 ... 130	V
Maximum DC operating voltage		$V_{DC,max}$	5.5 ... 170	V
Maximum surge current	(8/20 $\mu$ s)	$I_{surge,max}$	2 ... 1200	A
Maximum energy absorption	(2 ms)	$W_{max}$	7.5 ... 12000	mJ
Maximum power dissipation		$P_{diss,max}$	3 ... 20	mW
Maximum clamping voltage		$V_{clamp,max}$	17 ... 340	V
Operating temperature	for case size 0201, 0402	$T_{op}$	-40/+85	$^{\circ}$ C
	for case size $\geq$ 0603	$T_{op}$	-55/+125	$^{\circ}$ C
Storage temperature	for case size 0201, 0402	LCT/UCT	-40/+125	$^{\circ}$ C
	for case size $\geq$ 0603	LCT/UCT	-55/+150	$^{\circ}$ C
Response time		$t_{resp}$	< 0.5	ns

## Multilayer varistors (MLVs)

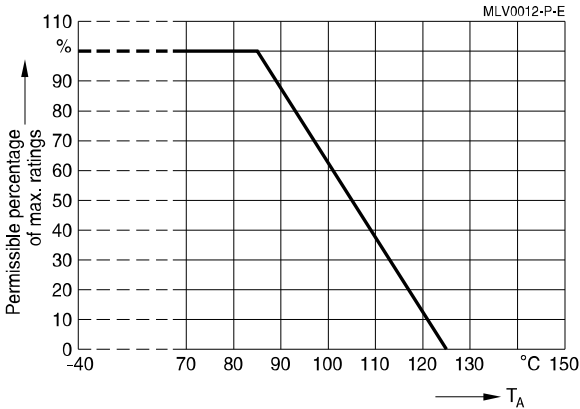
### Standard series

#### SMD

#### Temperature derating

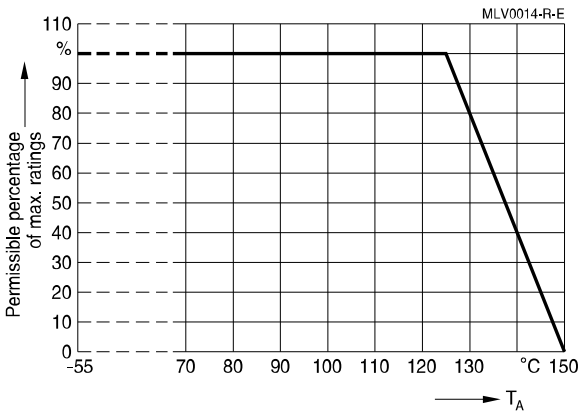
Climatic category:

–40/+85 °C for chip sizes 0201 and 0402



Climatic category:

–55/+125 °C for chip size ≥ 0603



## Multilayer varistors (MLVs)

### Standard series

### SMD

#### Electrical specifications and ordering codes

#### Maximum ratings ( $T_{op,max}$ )

Type	Ordering code	$V_{RMS,max}$ V	$V_{DC,max}$ V	$I_{surge,max}$ (8/20 $\mu$ s) A	$W_{max}$ (2 ms) mJ	$P_{diss,max}$ mW	$T_{op,max}$ $^{\circ}$ C
CT standard series							
CT0201S4AHSG	B72440T8040S160	4	5.5	-	-	-	+85
CT0402L4G	B72590T0040L060	4	5.5	20	30	3	+85
CT0402M4G	B72590T0040M060	4	5.5	20	7.5	3	+85
CT0402S5ARFG	B72590T7050S160	4	5.5	-	-	-	+85
CT0603M4G	B72500T0040M060	4	5.5	30	100	3	+125
CT0603S5ARFG	B72500T7050S160	4	5.5	-	-	-	+125
CT0805M4G	B72510T0040M062	4	5.5	100	100	5	+125
CT1206M4G	B72520T0040M062	4	5.5	150	300	8	+125
CT1210M4G	B72530T0040M062	4	5.5	250	400	10	+125
CT1812M4G	B72580T0040M062	4	5.5	500	800	15	+125
CT2220M4G	B72540T0040M062	4	5.5	1000	1400	20	+125
CT0603M6G	B72500T0060M060	6	8	30	100	3	+125
CT0805M6G	B72510T0060M062	6	8	120	200	5	+125
CT1206M6G	B72520T0060M062	6	8	200	400	8	+125
CT1210M6G	B72530T0060M062	6	8	300	700	10	+125
CT1812M6G	B72580T0060M062	6	8	500	1000	15	+125
CT2220M6G	B72540T0060M062	6	8	1200	3600	20	+125
CT0603K7G	B72500T0070K060	7	9	30	100	3	+125
CT0603M7G	B72500T0070M060	7	9	30	100	3	+125
CT0603L8G	B72500T0080L060	8	11	30	100	3	+125
CT0805L8G	B72510T0080L062	8	11	120	200	5	+125
CT1206L8G	B72520T0080L062	8	11	200	500	8	+125
CT1210L8G	B72530T0080L062	8	11	400	1000	10	+125
CT1812L8G	B72580T0080L062	8	11	800	1800	15	+125
CT2220L8G	B72540T0080L062	8	11	1200	4200	20	+125
CT0402S11ACCG	B72590T0110S460	11	12	22	7.5	3	+85
CT0402S11AG	B72590T0110S160	11	14	22	7.5	3	+85
CT0402S11AGK2	B72590T0110S360	11	14	22	7.5	3	+85
CT0603K11G	B72500T0110K060	11	14	30	200	3	+125
CT0805K11G	B72510T0110K062	11	14	120	200	5	+125
CT1206K11G	B72520T0110K062	11	14	200	500	8	+125
CT1210K11G	B72530T0110K062	11	14	400	1200	10	+125
CT1812K11G	B72580T0110K062	11	14	800	1900	15	+125
CT2220K11G	B72540T0110K062	11	14	1200	5400	20	+125

**Multilayer varistors (MLVs)**
**Standard series**
**SMD**
**Characteristics (T<sub>A</sub> = 25 °C)**

Type	V <sub>V</sub> (1 mA) V	ΔV <sub>V</sub> %	V <sub>clamp,max</sub> V	I <sub>clamp</sub> (8/20 μs) A	C <sub>typ</sub> <sup>1)</sup> (@ 1 V) pF
<b>CT standard series</b>					
CT0201S4AHS	30	±30	70	1	10
CT0402L4G	23.5	±15	46	1	47
CT0402M4G	10	±20	24	1	200
CT0402S5ARFG	255	±15	-	-	0.6
CT0603M4G	8	±20	19	1	200
CT0603S5ARFG	255	±15	-	-	0.6
CT0805M4G	8	±20	19	1	700
CT1206M4G	8	±20	17	1	1500
CT1210M4G	8	±20	17	2.5	5000
CT1812M4G	8	±20	17	5	10000
CT2220M4G	8	±20	17	10	24000
CT0603M6G	11	±20	27	1	200
CT0805M6G	11	±20	27	1	600
CT1206M6G	11	±20	25	1	1200
CT1210M6G	11	±20	25	2.5	4000
CT1812M6G	11	±20	25	5	8000
CT2220M6G	11	±20	25	10	24000
CT0603K7G	12.5	±10	27	1	130
CT0603M7G	12.5	±20	30	1	200
CT0603L8G	15	±15	33	1	150
CT0805L8G	15	±15	33	1	500
CT1206L8G	15	±15	30	1	1000
CT1210L8G	15	±15	30	2.5	3000
CT1812L8G	15	±15	30	5	6000
CT2220L8G	15	±15	30	10	16000
CT0402S11ACCG	18	±25	40	1	120 <sup>2)</sup>
CT0402S11AG	18.5	±15	35	1	120
CT0402S11AGK2	18.5	±15	35	1	100
CT0603K11G	18	±10	35	1	100
CT0805K11G	18	±10	35	1	400
CT1206K11G	18	±10	33	1	800
CT1210K11G	18	±10	33	2.5	2400
CT1812K11G	18	±10	33	5	5000
CT2220K11G	18	±10	33	10	12000

1) Measurement frequency: f = 1 MHz for C < 100 pF, f = 1 kHz for C ≥ 100 pF

2) Controlled capacitance: C<sub>min</sub> = 96 pF, C<sub>max</sub> = 144 pF



**Multilayer varistors (MLVs)**
**Standard series**
SMD
**Electrical specifications and ordering codes**
**Maximum ratings ( $T_{op,max}$ )**

Type	Ordering code	$V_{RMS,max}$	$V_{DC,max}$	$I_{surge,max}$ (8/20 $\mu$ s)	$W_{max}$ (2 ms)	$P_{diss,max}$	$T_{op,max}$
		V	V	A	mJ	mW	$^{\circ}$ C
<b>CT standard series</b>							
CT0402L14G	B72590T0140L060	14	16	20	10	3	+85
CT0402L14UG	B72590T0140L960	14	16	10	10	3	+85
CT0402S14AHSG	B72590T8140S160	14	16	2	-	3	+85
CT0402V150HSG	B72590T8151V060	14	16	-	-	-	+85
CT0402V150RFG	B72590T7151V060	14	16	-	-	-	+85
CT0402V275RFG	B72590T7271V060	14	16	-	-	-	+85
CT0402V90RFG	B72590T7900V060	14	16	-	-	-	+85
CT0603K14G	B72500T0140K060	14	18	30	200	3	+125
CT0603S14AHSG	B72500T8140S160	14	16	5	-	3	+125
CT0603V150RFG	B72500T7151V060	14	16	-	-	-	+125
CT0805K14G	B72510T0140K062	14	18	120	300	5	+125
CT1206K14G	B72520T0140K062	14	18	200	500	8	+125
CT1210K14G	B72530T0140K062	14	18	400	1500	10	+125
CT0402S17AG	B72590T0170S160	17	19	20	10	3	+85
CT1206K17G	B72520T0170K062	17	22	200	600	8	+125
CT1206K20G	B72520T0200K062	20	26	200	700	8	+125
CT0603K25G	B72500T0250K060	25	31	30	300	3	+125
CT0603L25HSG	B72500T8250L060	25	32	5	-	-	+125
CT0805K25G	B72510T0250K062	25	31	80	300	5	+125
CT1206K25G	B72520T0250K062	25	31	200	1000	8	+125
CT0805K30G	B72510T0300K062	30	38	80	300	5	+125
CT1206K30G	B72520T0300K062	30	38	200	1100	8	+125
CT1210K30G	B72530T0300K062	30	38	300	2000	10	+125
CT1812K30G	B72580T0300K062	30	38	800	4200	15	+125
CT2220K30G	B72540T0300K062	30	38	1200	12000	20	+125
CT0805K35G	B72510T0350K062	35	45	80	300	5	+125
CT1206K35G	B72520T0350K062	35	45	100	400	8	+125
CT1210K35G	B72530T0350K062	35	45	250	2000	10	+125
CT1812K35G	B72580T0350K062	35	45	500	4000	15	+125
CT1206K40G	B72520T0400K062	40	56	100	500	8	+125
CT1210K40G	B72530T0400K062	40	56	250	2300	10	+125
CT1812K40G	B72580T0400K062	40	56	500	4800	15	+125
CT2220K40G	B72540T0400K062	40	56	1000	9000	20	+125
CT1206K50G	B72520T0500K062	50	65	100	600	8	+125
CT1210K50G	B72530T0500K062	50	65	200	1600	10	+125
CT1812K50G	B72580T0500K062	50	65	400	4500	15	+125

**Multilayer varistors (MLVs)**
**Standard series**
**SMD**
**Characteristics (T<sub>A</sub> = 25 °C)**

Type	V <sub>V</sub> (1 mA) V	ΔV <sub>V</sub> %	V <sub>clamp,max</sub> V	I <sub>clamp</sub> (8/20 μs) A	C <sub>typ</sub> <sup>(1)</sup> (@ 1 V) pF
<b>CT standard series</b>					
CT0402L14G	23.5	±15	46	1	47
CT0402L14UG	23.5	±15	46	1	47
CT0402S14AHSG	28	±20	66	1	10
CT0402V150HSG	175	±15	290	1	-
CT0402V150RFG	175	±15	290	1	2
CT0402V275RFG	275	±30	-	-	1.5
CT0402V90RFG	105	±15	-	-	2.2
CT0603K14G	22	±10	40	1	100
CT0603S14AHSG	28	±20	66	1	-
CT0603V150RFG	175	±15	290	1	3
CT0805K14G	22	±10	40	1	350
CT1206K14G	22	±10	38	1	700
CT1210K14G	22	±10	38	2.5	2000
CT0402S17AG	32.5	±25	59	1	33
CT1206K17G	27	±10	44	1	650
CT1206K20G	33	±10	54	1	600
CT0603K25G	39	±10	67	1	90
CT0603L25HSG	61	±15	120	1	-
CT0805K25G	39	±10	67	1	250
CT1206K25G	39	±10	65	1	550
CT0805K30G	47	±10	77	1	200
CT1206K30G	47	±10	77	1	500
CT1210K30G	47	±10	77	2.5	1000
CT1812K30G	47	±10	77	5	2000
CT2220K30G	47	±10	77	10	4000
CT0805K35G	56	±10	95	1	150
CT1206K35G	56	±10	90	1	200
CT1210K35G	56	±10	90	2.5	600
CT1812K35G	56	±10	90	5	1200
CT1206K40G	68	±10	110	1	250
CT1210K40G	68	±10	110	2.5	500
CT1812K40G	68	±10	110	5	1000
CT2220K40G	68	±10	110	10	2000
CT1206K50G	82	±10	135	1	120
CT1210K50G	82	±10	135	2.5	250
CT1812K50G	82	±10	135	5	500

1) Measurement frequency: f = 1 MHz for C < 100 pF, f = 1 kHz for C ≥ 100 pF

**Multilayer varistors (MLVs)**
**Standard series**
**SMD**
**Electrical specifications and ordering codes**
**Maximum ratings ( $T_{op,max}$ )**

Type	Ordering code	$V_{RMS,max}$ V	$V_{DC,max}$ V	$I_{surge,max}$ (8/20 $\mu$ s) A	$W_{max}$ (2 ms) mJ	$P_{diss,max}$ mW	$T_{op,max}$ $^{\circ}$ C
<b>CT standard series</b>							
CT2220K50G	B72540T0500K062	50	65	800	5600	20	+125
CT1206K60G	B72520T0600K062	60	85	100	700	8	+125
CT1210K60G	B72530T0600K062	60	85	200	2000	10	+125
CT1812K60G	B72580T0600K062	60	85	400	5800	15	+125
CT2220K60G	B72540T0600K062	60	85	800	6800	20	+125
CT1812K130G2	B72580T0131K072	130	170	250	3500	15	+125

**Characteristics ( $T_A = 25^{\circ}$ C)**

Type	$V_V$ (1 mA) V	$\Delta V_V$ %	$V_{clamp,max}$ V	$I_{clamp}$ (8/20 $\mu$ s) A	$C_{typ}^{(1)}$ (@ 1 V) pF
<b>CT standard series</b>					
CT2220K50G	82	$\pm 10$	135	10	1000
CT1206K60G	100	$\pm 10$	165	1	100
CT1210K60G	100	$\pm 10$	165	2.5	200
CT1812K60G	100	$\pm 10$	165	5	400
CT2220K60G	100	$\pm 10$	165	10	800
CT1812K130G2	205	$\pm 10$	340	5	200

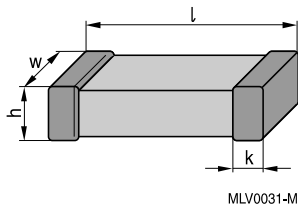
1) Measurement frequency:  $f = 1$  MHz for  $C < 100$  pF,  $f = 1$  kHz for  $C \geq 100$  pF

## Multilayer varistors (MLVs)

### Standard series

### SMD

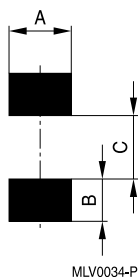
#### Dimensional drawing



#### Dimensions in mm

Case size EIA / mm	l	w	h	k
0201 / 0603	0.6 ±0.03	0.30 ±0.03	0.33 max.	0.15 ±0.05
0402 / 1005	1.0 ±0.15	0.50 ±0.10	0.6 max.	0.10 ... 0.30
0603 / 1608	1.6 ±0.15	0.80 ±0.10	0.9 max.	0.10 ... 0.40
0805 / 2012	2.0 ±0.20	1.25 ±0.15	1.4 max.	0.13 ... 0.75
1206 / 3216	3.2 ±0.30	1.60 ±0.20	1.7 max.	0.25 ... 0.75
1210 / 3225	3.2 ±0.30	2.50 ±0.25	1.7 max.	0.25 ... 0.75
1812 / 4532	4.5 ±0.40	3.20 ±0.30	2.5 max.	0.25 ... 1.00
2220 / 5750	5.7 ±0.40	5.00 ±0.40	2.5 max.	0.25 ... 1.00

#### Recommended solder pad layout



#### Dimensions in mm

Case size EIA / mm	A	B	C
0201 / 0603	0.30	0.25	0.30
0402 / 1005	0.60	0.60	0.50
0603 / 1608	1.00	1.00	1.00
0805 / 2012	1.40	1.20	1.00
1206 / 3216	1.80	1.20	2.10
1210 / 3225	2.80	1.20	2.10
1812 / 4532	3.60	1.50	3.00
2220 / 5750	5.50	1.50	4.20

**Multilayer varistors (MLVs)**
**Standard series**
SMD
**Delivery mode**

EIA case size	Taping	Reel size mm	Packing unit pcs.	Type	Ordering code
0201	Cardboard	180	15000	CT0201S4AHSG	B72440T8040S160
0402	Cardboard	180	10000	CT0402L14G	B72590T0140L060
0402	Cardboard	180	10000	CT0402L14UG	B72590T0140L960
0402	Cardboard	180	10000	CT0402L4G	B72590T0040L060
0402	Cardboard	180	10000	CT0402M4G	B72590T0040M060
0402	Cardboard	180	10000	CT0402S11ACCG	B72590T0110S460
0402	Cardboard	180	10000	CT0402S11AG	B72590T0110S160
0402	Cardboard	180	10000	CT0402S11AGK2	B72590T0110S360
0402	Cardboard	180	10000	CT0402S14AHSG	B72590T8140S160
0402	Cardboard	180	10000	CT0402S17AG	B72590T0170S160
0402	Cardboard	180	10000	CT0402S5ARFG	B72590T7050S160
0402	Cardboard	180	10000	CT0402V150HSG	B72590T8151V060
0402	Cardboard	180	10000	CT0402V150RFG	B72590T7151V060
0402	Cardboard	180	10000	CT0402V275RFG	B72590T7271V060
0402	Cardboard	180	10000	CT0402V90RFG	B72590T7900V060
0603	Cardboard	180	4000	CT0603K11G	B72500T0110K060
0603	Cardboard	180	4000	CT0603K14G	B72500T0140K060
0603	Cardboard	180	4000	CT0603K25G	B72500T0250K060
0603	Cardboard	180	4000	CT0603K7G	B72500T0070K060
0603	Cardboard	180	4000	CT0603L25HSG	B72500T8250L060
0603	Cardboard	180	4000	CT0603L8G	B72500T0080L060
0603	Cardboard	180	4000	CT0603M4G	B72500T0040M060
0603	Cardboard	180	4000	CT0603M6G	B72500T0060M060
0603	Cardboard	180	4000	CT0603M7G	B72500T0070M060
0603	Cardboard	180	4000	CT0603S14AHSG	B72500T8140S160
0603	Cardboard	180	4000	CT0603S5ARFG	B72500T7050S160
0603	Cardboard	180	4000	CT0603V150RFG	B72500T7151V060
0805	Blister	180	3000	CT0805K11G	B72510T0110K062
0805	Blister	180	3000	CT0805K14G	B72510T0140K062
0805	Blister	180	3000	CT0805K25G	B72510T0250K062
0805	Blister	180	3000	CT0805K30G	B72510T0300K062
0805	Blister	180	3000	CT0805K35G	B72510T0350K062
0805	Blister	180	3000	CT0805L8G	B72510T0080L062
0805	Blister	180	3000	CT0805M4G	B72510T0040M062
0805	Blister	180	3000	CT0805M6G	B72510T0060M062
1206	Blister	180	3000	CT1206K11G	B72520T0110K062
1206	Blister	180	3000	CT1206K14G	B72520T0140K062
1206	Blister	180	3000	CT1206K17G	B72520T0170K062
1206	Blister	180	3000	CT1206K20G	B72520T0200K062
1206	Blister	180	2000	CT1206K25G	B72520T0250K062
1206	Blister	180	2000	CT1206K30G	B72520T0300K062
1206	Blister	180	2000	CT1206K35G	B72520T0350K062

**Multilayer varistors (MLVs)**
**Standard series**
SMD

EIA case size	Taping	Reel size mm	Packing unit pcs.	Type	Ordering code
1206	Blister	180	2000	CT1206K40G	B72520T0400K062
1206	Blister	180	2000	CT1206K50G	B72520T0500K062
1206	Blister	180	2000	CT1206K60G	B72520T0600K062
1206	Blister	180	3000	CT1206L8G	B72520T0080L062
1206	Blister	180	3000	CT1206M4G	B72520T0040M062
1206	Blister	180	3000	CT1206M6G	B72520T0060M062
1210	Blister	180	3000	CT1210K11G	B72530T0110K062
1210	Blister	180	3000	CT1210K14G	B72530T0140K062
1210	Blister	180	2000	CT1210K30G	B72530T0300K062
1210	Blister	180	2000	CT1210K35G	B72530T0350K062
1210	Blister	180	2000	CT1210K40G	B72530T0400K062
1210	Blister	180	2000	CT1210K50G	B72530T0500K062
1210	Blister	180	2000	CT1210K60G	B72530T0600K062
1210	Blister	180	3000	CT1210L8G	B72530T0080L062
1210	Blister	180	3000	CT1210M4G	B72530T0040M062
1210	Blister	180	3000	CT1210M6G	B72530T0060M062
1812	Blister	180	1500	CT1812K11G	B72580T0110K062
1812	Blister	330	3000	CT1812K130G2	B72580T0131K072
1812	Blister	180	1000	CT1812K30G	B72580T0300K062
1812	Blister	180	1000	CT1812K35G	B72580T0350K062
1812	Blister	180	1000	CT1812K40G	B72580T0400K062
1812	Blister	180	1000	CT1812K50G	B72580T0500K062
1812	Blister	180	1000	CT1812K60G	B72580T0600K062
1812	Blister	180	1500	CT1812L8G	B72580T0080L062
1812	Blister	180	1500	CT1812M4G	B72580T0040M062
1812	Blister	180	1500	CT1812M6G	B72580T0060M062
2220	Blister	180	1500	CT2220K11G	B72540T0110K062
2220	Blister	180	1000	CT2220K30G	B72540T0300K062
2220	Blister	180	1000	CT2220K40G	B72540T0400K062
2220	Blister	180	1000	CT2220K50G	B72540T0500K062
2220	Blister	180	1000	CT2220K60G	B72540T0600K062
2220	Blister	180	1500	CT2220L8G	B72540T0080L062
2220	Blister	180	1500	CT2220M4G	B72540T0040M062
2220	Blister	180	1500	CT2220M6G	B72540T0060M062

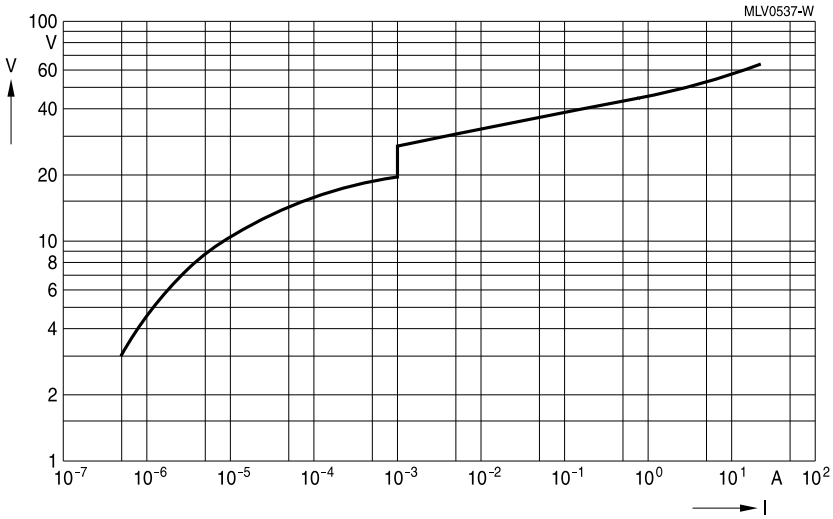
**Multilayer varistors (MLVs)**

**Standard series**

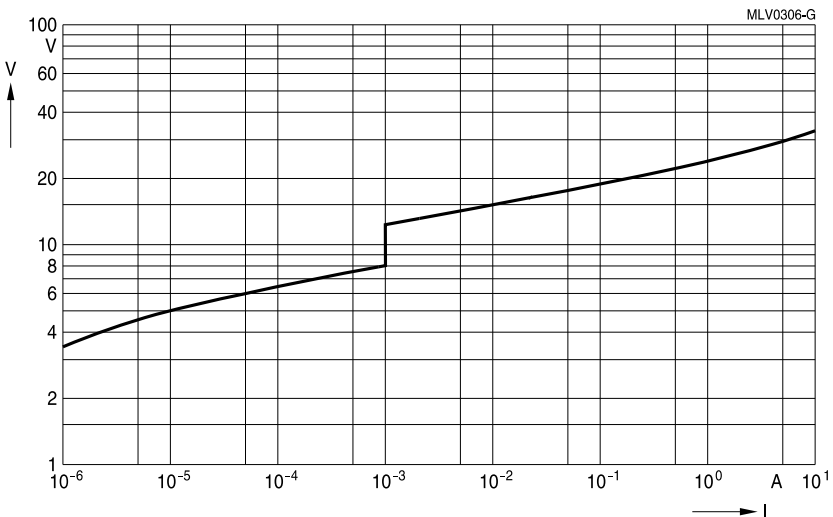
**SMD**

**V/I characteristics for standard series**

Not specified for following types: CT0201S4AHSG, CT0402S5ARFG, CT0402V150HSG, CT0402V150RFG, CT0402V275RFG, CT0402V90RFG, CT0603S5ARFG and CT0603V150RFG.



**CT0402L4G**



**CT0402M4G**

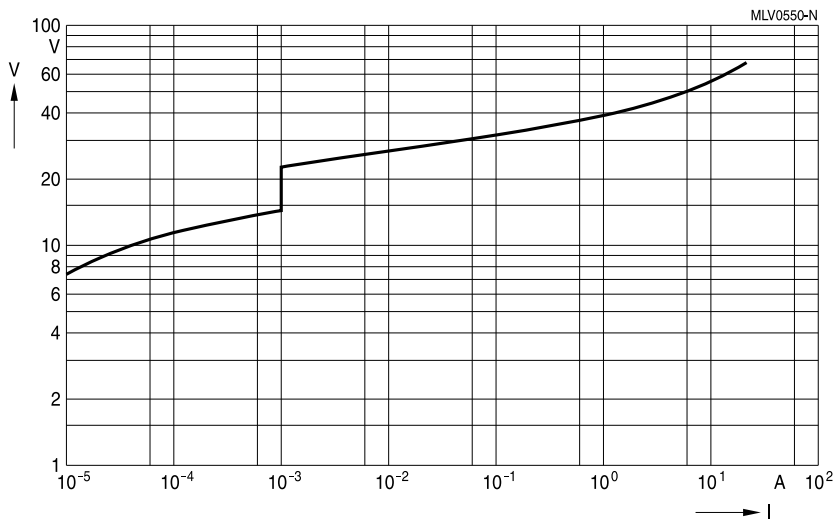
## Multilayer varistors (MLVs)

### Standard series

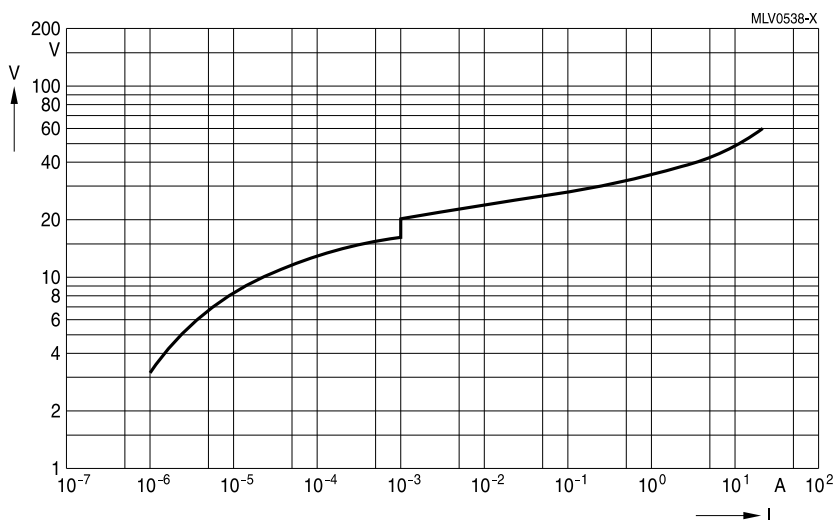
### SMD

#### V/I characteristics for standard series

Not specified for following types: CT0201S4AHSG, CT0402S5ARFG, CT0402V150HSG, CT0402V150RFG, CT0402V275RFG, CT0402V90RFG, CT0603S5ARFG and CT0603V150RFG.



#### CT0402S11ACCG



#### CT0402S11AG CT0402S11AGK2



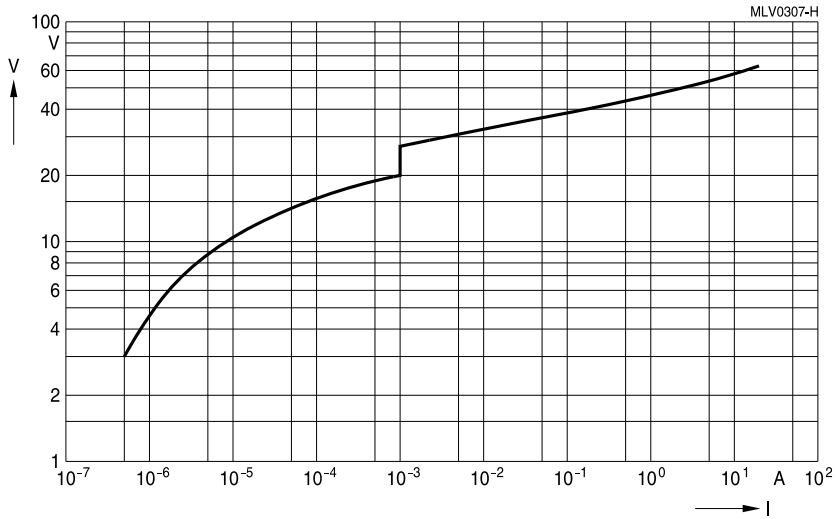
**Multilayer varistors (MLVs)**

**Standard series**

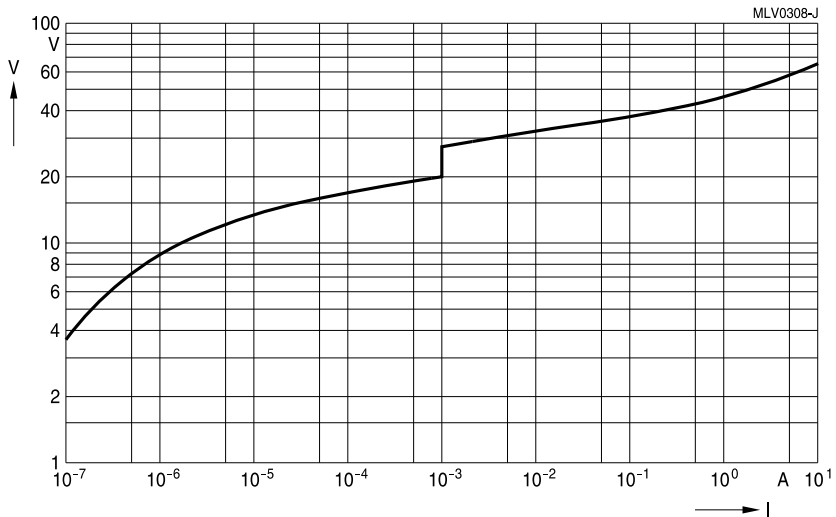
**SMD**

**V/I characteristics for standard series**

Not specified for following types: CT0201S4AHSG, CT0402S5ARFG, CT0402V150HSG, CT0402V150RFG, CT0402V275RFG, CT0402V90RFG, CT0603S5ARFG and CT0603V150RFG.



CT0402L14G



CT0402L14UG

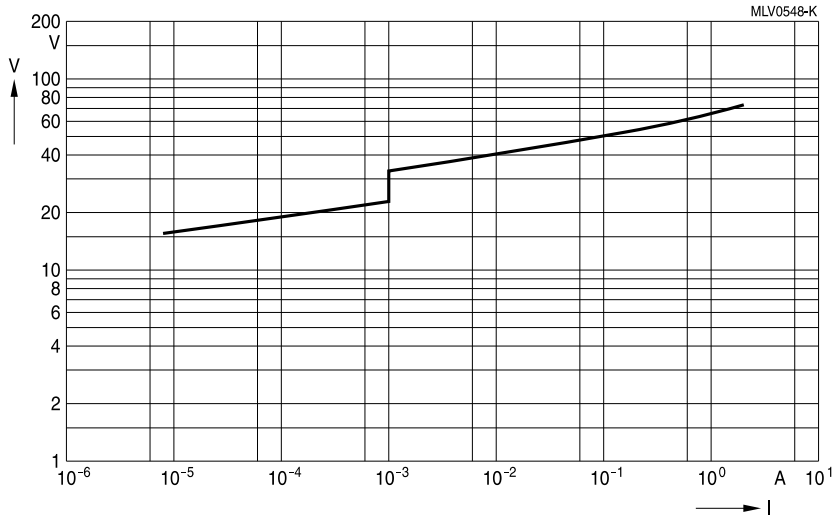
**Multilayer varistors (MLVs)**

**Standard series**

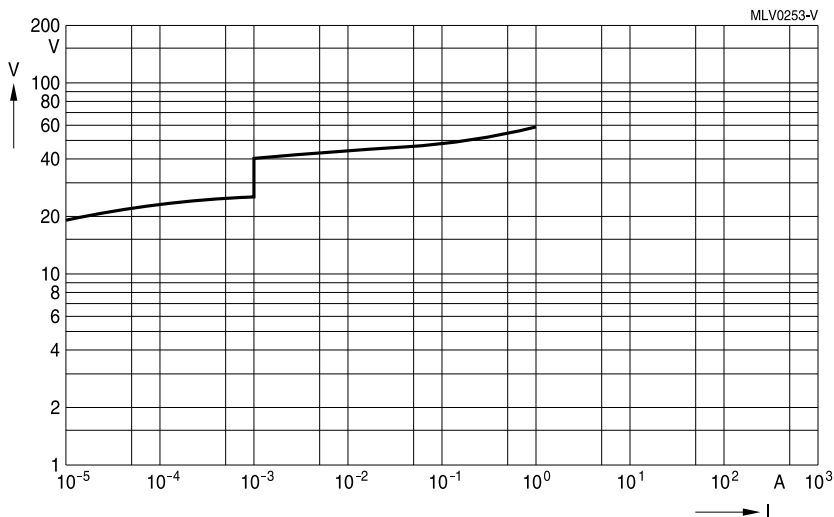
**SMD**

**V/I characteristics for standard series**

Not specified for following types: CT0201S4AHSG, CT0402S5ARFG, CT0402V150HSG, CT0402V150RFG, CT0402V275RFG, CT0402V90RFG, CT0603S5ARFG and CT0603V150RFG.



**CT0402S14AHSG**



**CT0402S17AG**

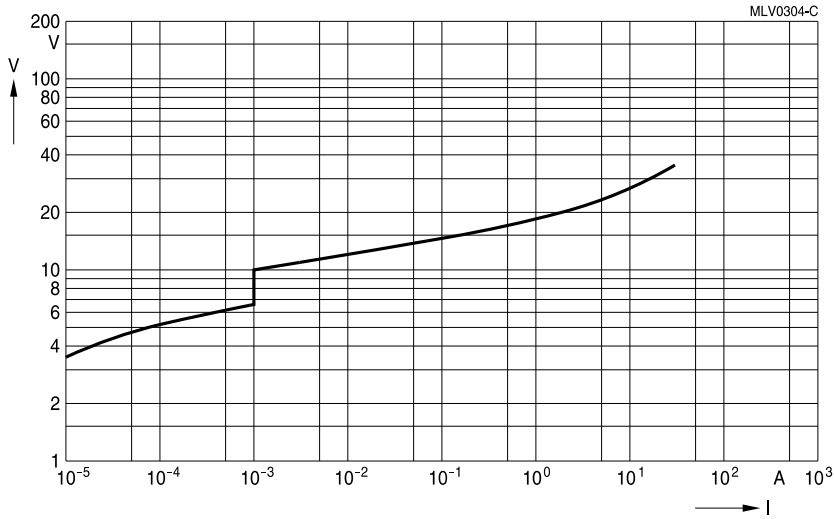
**Multilayer varistors (MLVs)**

**Standard series**

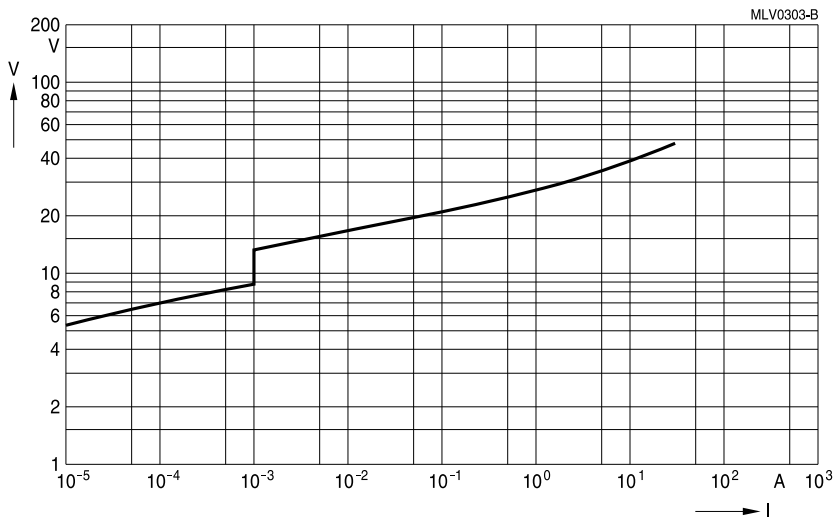
**SMD**

**V/I characteristics for standard series**

Not specified for following types: CT0201S4AHSG, CT0402S5ARFG, CT0402V150HSG, CT0402V150RFG, CT0402V275RFG, CT0402V90RFG, CT0603S5ARFG and CT0603V150RFG.



CT0603M4G



CT0603M6G

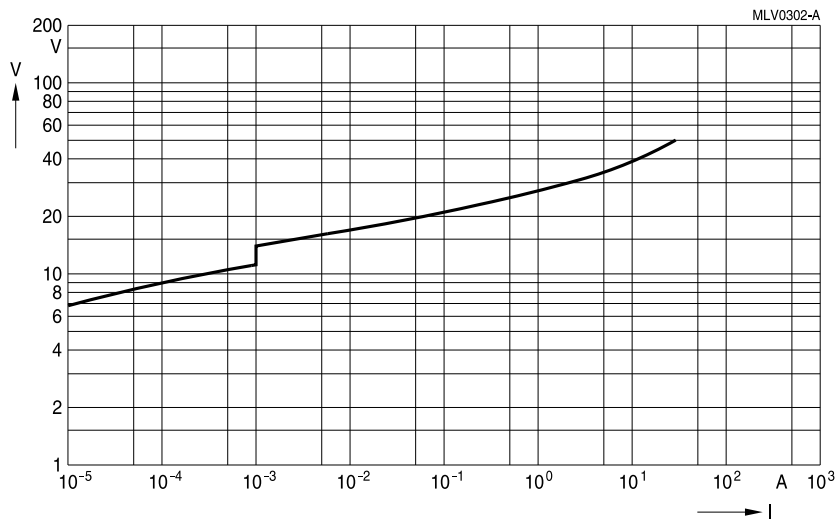
## Multilayer varistors (MLVs)

### Standard series

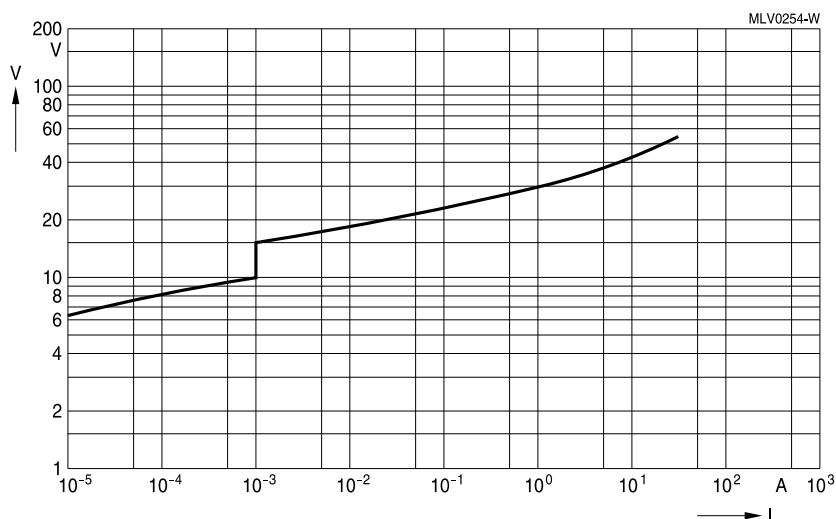
#### SMD

#### V/I characteristics for standard series

Not specified for following types: CT0201S4AHSG, CT0402S5ARFG, CT0402V150HSG, CT0402V150RFG, CT0402V275RFG, CT0402V90RFG, CT0603S5ARFG and CT0603V150RFG.



#### CT0603K7G



#### CT0603M7G

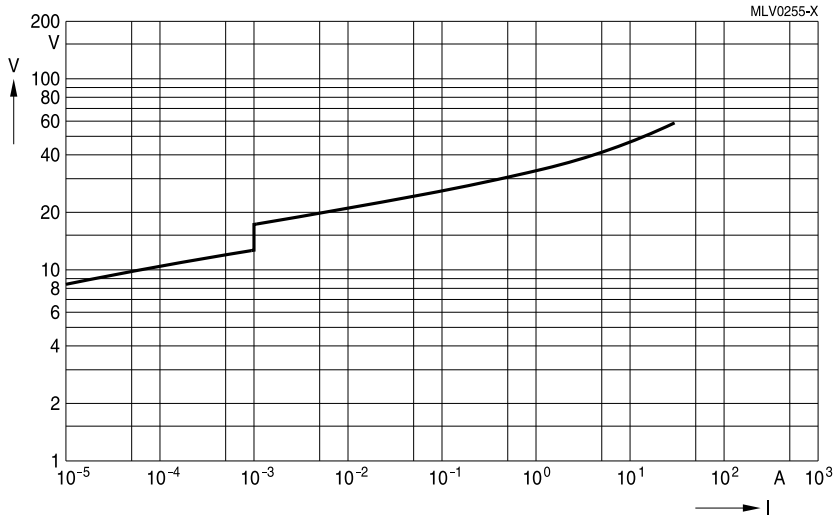
**Multilayer varistors (MLVs)**

**Standard series**

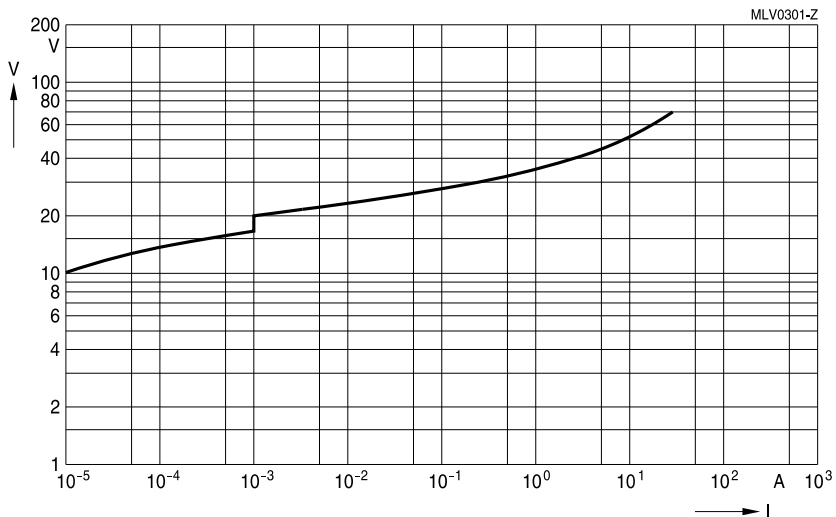
**SMD**

**V/I characteristics for standard series**

Not specified for following types: CT0201S4AHSG, CT0402S5ARFG, CT0402V150HSG, CT0402V150RFG, CT0402V275RFG, CT0402V90RFG, CT0603S5ARFG and CT0603V150RFG.



**CT0603L8G**



**CT0603K11G**

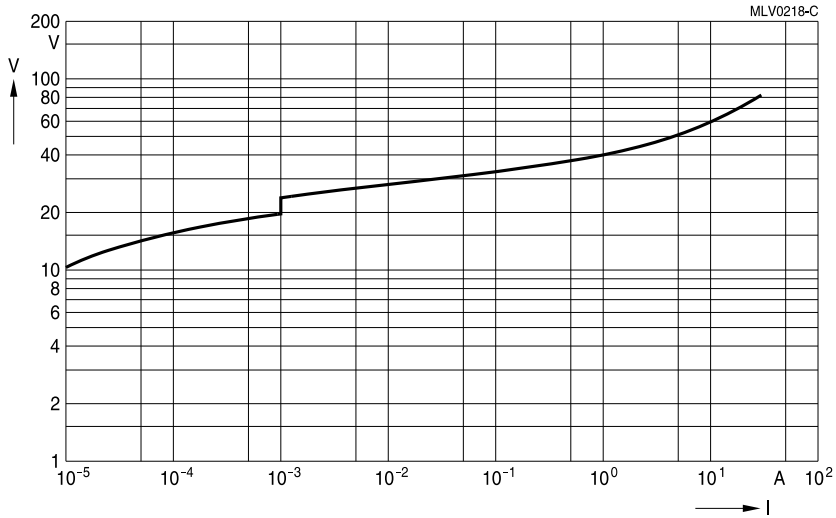
**Multilayer varistors (MLVs)**

**Standard series**

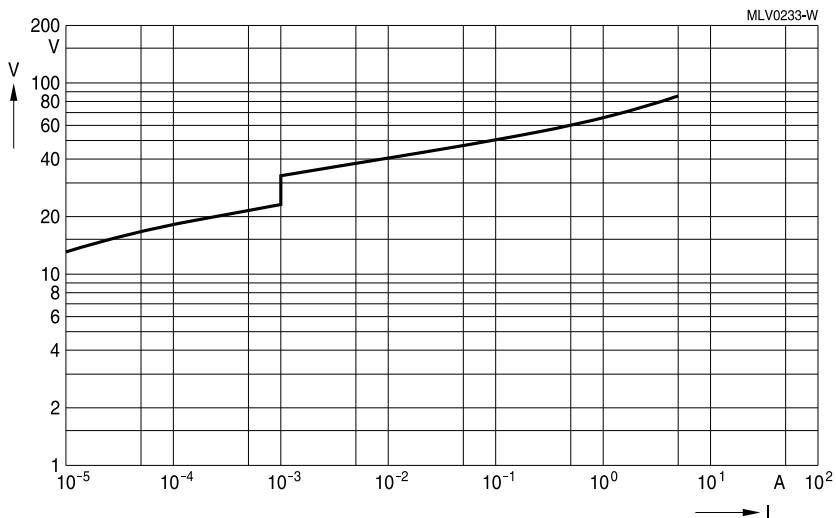
**SMD**

**V/I characteristics for standard series**

Not specified for following types: CT0201S4AHSG, CT0402S5ARFG, CT0402V150HSG, CT0402V150RFG, CT0402V275RFG, CT0402V90RFG, CT0603S5ARFG and CT0603V150RFG.



**CT0603K14G**



**CT0603S14AHSG**

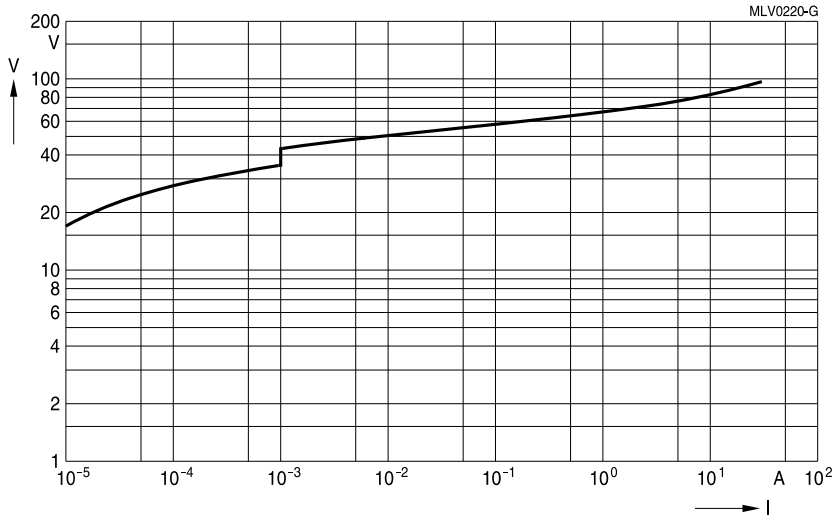
**Multilayer varistors (MLVs)**

**Standard series**

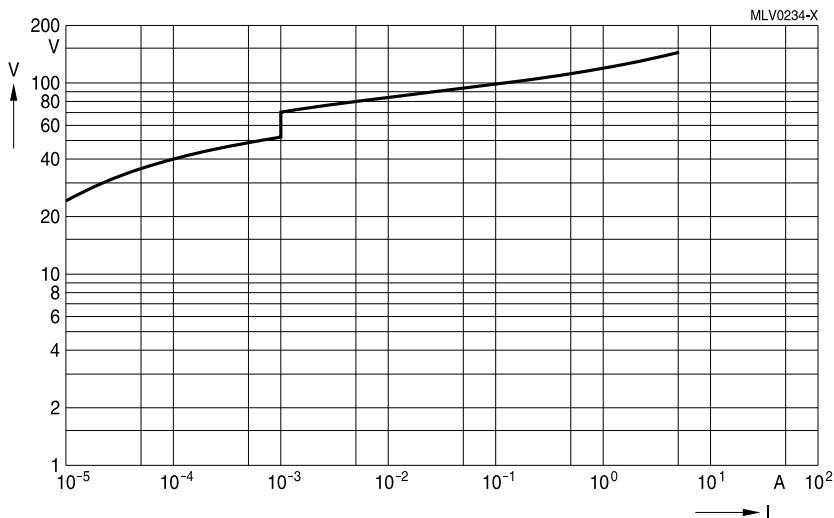
**SMD**

**V/I characteristics for standard series**

Not specified for following types: CT0201S4AHSG, CT0402S5ARFG, CT0402V150HSG, CT0402V150RFG, CT0402V275RFG, CT0402V90RFG, CT0603S5ARFG and CT0603V150RFG.



**CT0603K25G**



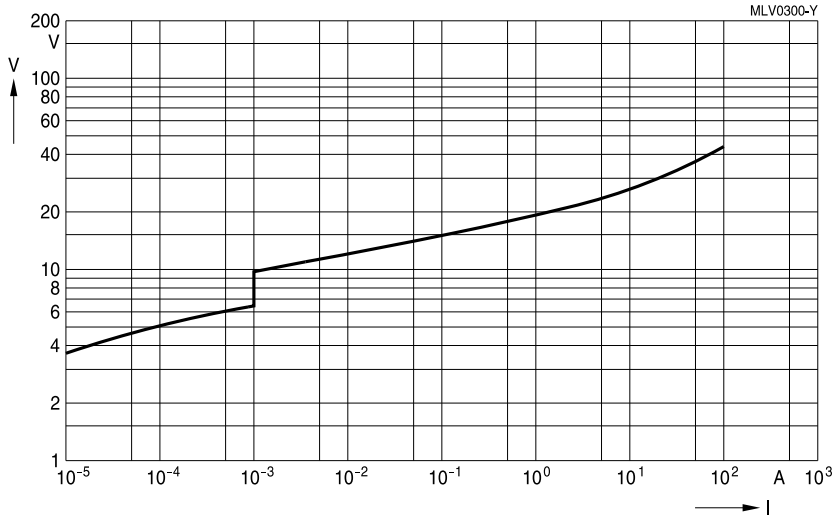
**CT0603L25HSG**

**Multilayer varistors (MLVs)**

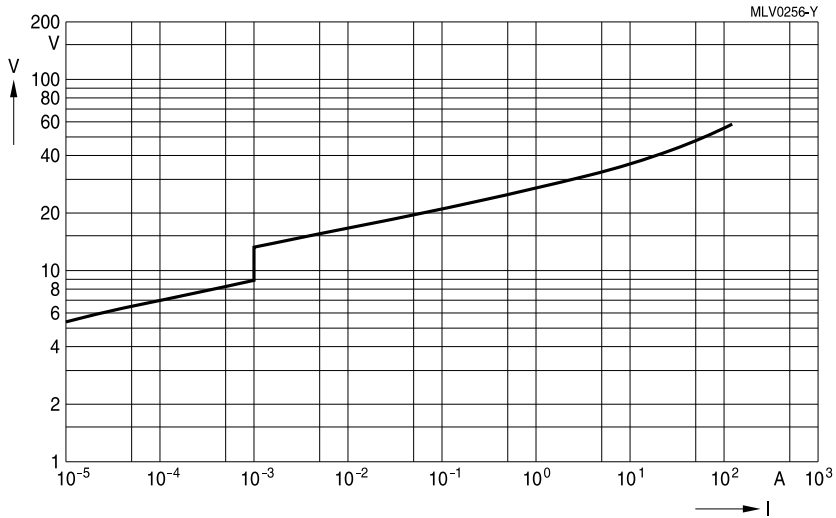
**Standard series**

**SMD**

**V/I characteristics for standard series**



**CT0805M4G**



**CT0805M6G**

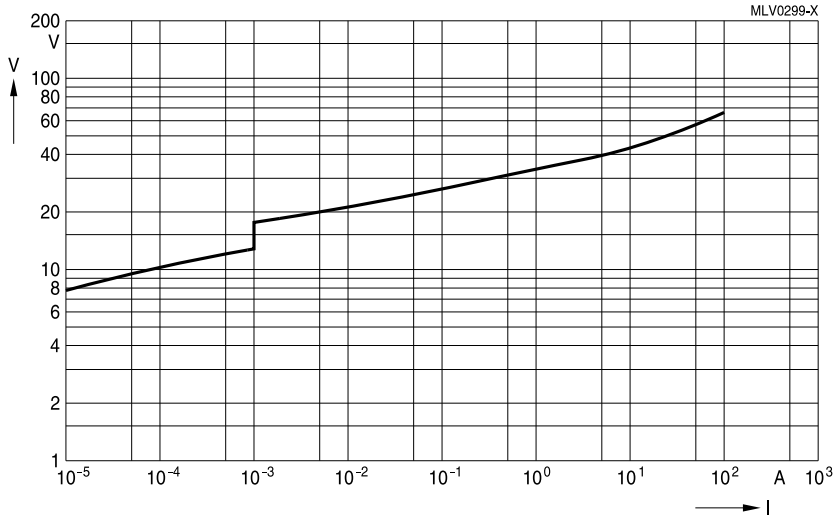


**Multilayer varistors (MLVs)**

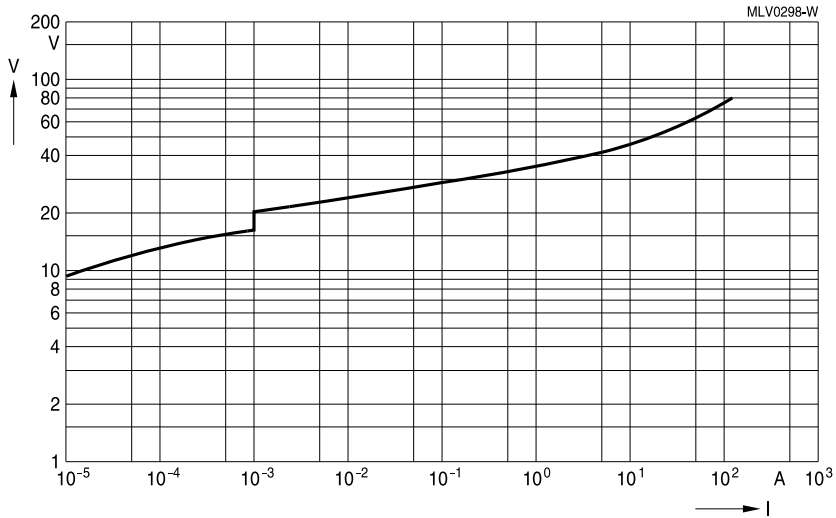
**Standard series**

**SMD**

**V/I characteristics for standard series**



**CT0805L8G**



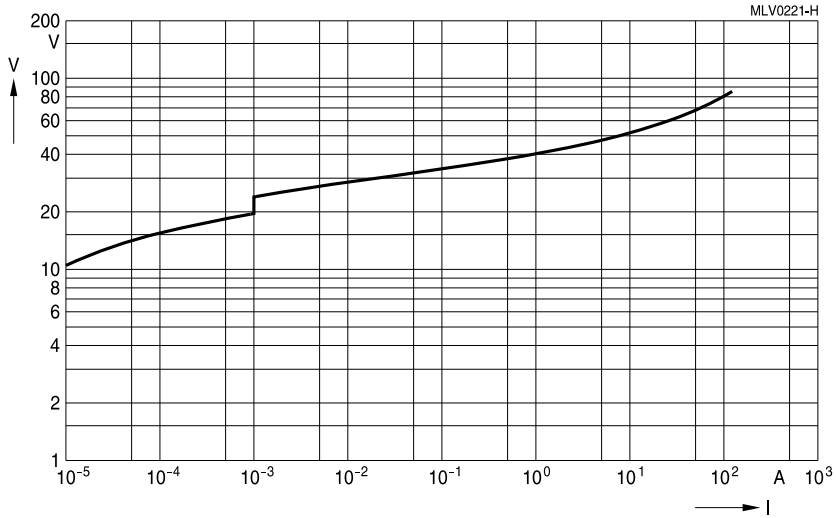
**CT0805K11G**

**Multilayer varistors (MLVs)**

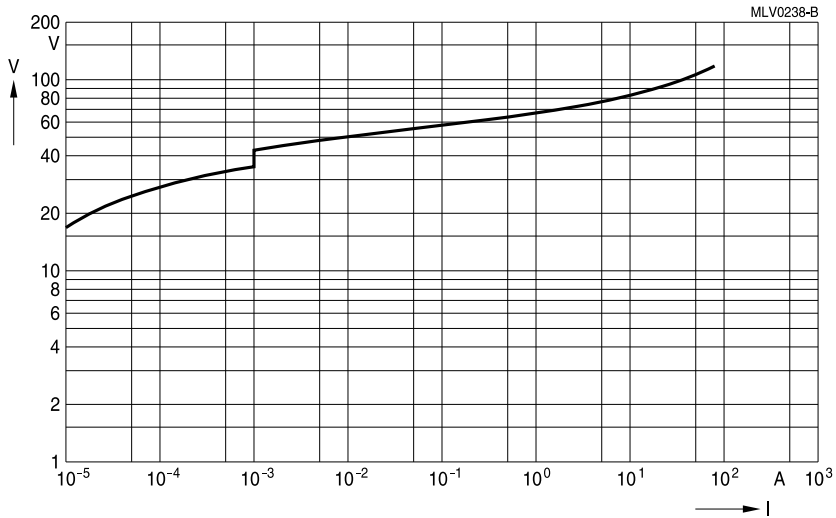
**Standard series**

**SMD**

**V/I characteristics for standard series**



**CT0805K14G**



**CT0805K25G**