



## **SIOV metal oxide varistors**

Block varistors, HighE series

**Series/Type:** B32, B40, B60, B80

**Date:** December 2007

## Block varistors

### HighE series

#### Construction

- Disk-shaped varistor element, potted in plastic housing
- Housing and potting flame-retardant to UL 94 V-0
- Screw terminals M4 (SIOV-B32 ... 40)  
Screw terminals M5 (SIOV-B60 ... 80)

#### Features

- Heavy-duty varistors (surge current capability up to 100 kA)
- Wide operating voltage range 75 ... 1100 V<sub>RMS</sub>
- SIOV-B40 also available without housing (LS40 series)
- PSpice models

#### Approvals

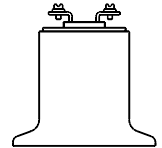
- UL
- CSA (≥ K130)

#### Delivery mode

- Cardboard box

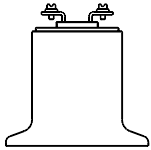
#### General technical data

|                       |                |              |                   |
|-----------------------|----------------|--------------|-------------------|
| Climatic category     | to IEC 60068-1 | 40/85/56     |                   |
| Operating temperature | to CECC 42 000 | -40 ... + 85 | °C                |
| Storage temperature   |                | -40 ... +110 | °C                |
| Electric strength     | to CECC 42 000 | ≥2.5         | kV <sub>RMS</sub> |
| Insulation resistance | to CECC 42 000 | ≥10          | MΩ                |
| Response time         |                | <25          | ns                |
| Max. torque           |                |              |                   |
| B32/B40               |                | 1.0          | Nm                |
| B60/B80               |                | 2.5          | Nm                |


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

| Ordering code   | Type    | $V_{RMS}$ | $V_{DC}$ | $i_{max}$<br>(8/20 $\mu$ s) | $W_{max}$<br>(2 ms) | $P_{max}$ |
|-----------------|---------|-----------|----------|-----------------------------|---------------------|-----------|
|                 | SIOV-   | V         | V        | A                           | J                   | W         |
| B72240B0750K001 | B40K75  | 75        | 100      | 25000                       | 190                 | 1.4       |
| B72232B0131K001 | B32K130 | 130       | 170      | 25000                       | 210                 | 1.2       |
| B72240B0131K001 | B40K130 | 130       | 170      | 40000                       | 310                 | 1.4       |
| B72260B0131K001 | B60K130 | 130       | 170      | 70000                       | 490                 | 1.6       |
| B72280B0131K001 | B80K130 | 130       | 170      | 100000                      | 660                 | 2.0       |
| B72232B0151K001 | B32K150 | 150       | 200      | 25000                       | 240                 | 1.2       |
| B72240B0151K001 | B40K150 | 150       | 200      | 40000                       | 360                 | 1.4       |
| B72260B0151K001 | B60K150 | 150       | 200      | 70000                       | 570                 | 1.6       |
| B72280B0151K001 | B80K150 | 150       | 200      | 100000                      | 800                 | 2.0       |
| B72232B0231K001 | B32K230 | 230       | 300      | 25000                       | 300                 | 1.2       |
| B72240B0231K001 | B40K230 | 230       | 300      | 40000                       | 460                 | 1.4       |
| B72260B0231K001 | B60K230 | 230       | 300      | 70000                       | 730                 | 1.6       |
| B72280B0231K001 | B80K230 | 230       | 300      | 100000                      | 1200                | 2.0       |
| B72232B0251K001 | B32K250 | 250       | 320      | 25000                       | 330                 | 1.2       |
| B72240B0251K001 | B40K250 | 250       | 320      | 40000                       | 490                 | 1.4       |
| B72260B0251K001 | B60K250 | 250       | 320      | 70000                       | 800                 | 1.6       |
| B72280B0251K001 | B80K250 | 250       | 320      | 100000                      | 1300                | 2.0       |
| B72232B0271K001 | B32K275 | 275       | 350      | 25000                       | 360                 | 1.2       |
| B72240B0271K001 | B40K275 | 275       | 350      | 40000                       | 550                 | 1.4       |
| B72260B0271K001 | B60K275 | 275       | 350      | 70000                       | 860                 | 1.6       |
| B72280B0271K001 | B80K275 | 275       | 350      | 100000                      | 1400                | 2.0       |
| B72232B0321K001 | B32K320 | 320       | 420      | 25000                       | 430                 | 1.2       |
| B72240B0321K001 | B40K320 | 320       | 420      | 40000                       | 640                 | 1.4       |
| B72260B0321K001 | B60K320 | 320       | 420      | 70000                       | 1000                | 1.6       |
| B72280B0321K001 | B80K320 | 320       | 420      | 100000                      | 1600                | 2.0       |
| B72232B0381K001 | B32K385 | 385       | 505      | 25000                       | 550                 | 1.2       |
| B72240B0381K001 | B40K385 | 385       | 505      | 40000                       | 800                 | 1.4       |
| B72260B0381K001 | B60K385 | 385       | 505      | 70000                       | 1200                | 1.6       |
| B72280B0381K001 | B80K385 | 385       | 505      | 100000                      | 2000                | 2.0       |

Varistor elements without plastic housing (suitable for soldering) are available upon request.

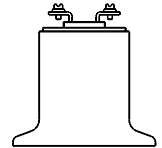


## Block varistors

### HighE series

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

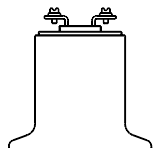
| Ordering code   | $V_V$<br>(1 mA)<br>V | $\Delta V_V$<br>(1 mA)<br>% | $V_{c, \max}$<br>( $i_c$ )<br>V | $i_c$<br>A | $C_{typ}$<br>(1 kHz)<br>pF |
|-----------------|----------------------|-----------------------------|---------------------------------|------------|----------------------------|
| B72240B0750K001 | 120                  | ±10                         | 220                             | 300        | 11000                      |
| B72232B0131K001 | 205                  | ±10                         | 340                             | 200        | 4400                       |
| B72240B0131K001 | 205                  | ±10                         | 340                             | 300        | 5600                       |
| B72260B0131K001 | 205                  | ±10                         | 340                             | 500        | 15000                      |
| B72280B0131K001 | 205                  | ±10                         | 340                             | 800        | 28000                      |
| B72232B0151K001 | 240                  | ±10                         | 395                             | 200        | 3700                       |
| B72240B0151K001 | 240                  | ±10                         | 395                             | 300        | 4800                       |
| B72260B0151K001 | 240                  | ±10                         | 395                             | 500        | 12000                      |
| B72280B0151K001 | 240                  | ±10                         | 395                             | 800        | 23000                      |
| B72232B0231K001 | 360                  | ±10                         | 595                             | 200        | 2500                       |
| B72240B0231K001 | 360                  | ±10                         | 595                             | 300        | 3200                       |
| B72260B0231K001 | 360                  | ±10                         | 595                             | 500        | 7900                       |
| B72280B0231K001 | 360                  | ±10                         | 595                             | 800        | 16000                      |
| B72232B0251K001 | 390                  | ±10                         | 650                             | 200        | 2200                       |
| B72240B0251K001 | 390                  | ±10                         | 650                             | 300        | 2900                       |
| B72260B0251K001 | 390                  | ±10                         | 650                             | 500        | 7100                       |
| B72280B0251K001 | 390                  | ±10                         | 650                             | 800        | 14000                      |
| B72232B0271K001 | 430                  | ±10                         | 710                             | 200        | 2000                       |
| B72240B0271K001 | 430                  | ±10                         | 710                             | 300        | 2700                       |
| B72260B0271K001 | 430                  | ±10                         | 710                             | 500        | 6600                       |
| B72280B0271K001 | 430                  | ±10                         | 710                             | 800        | 13000                      |
| B72232B0321K001 | 510                  | ±10                         | 840                             | 200        | 1700                       |
| B72240B0321K001 | 510                  | ±10                         | 840                             | 300        | 2300                       |
| B72260B0321K001 | 510                  | ±10                         | 840                             | 500        | 5600                       |
| B72280B0321K001 | 510                  | ±10                         | 840                             | 800        | 11000                      |
| B72232B0381K001 | 620                  | ±10                         | 1025                            | 200        | 1400                       |
| B72240B0381K001 | 620                  | ±10                         | 1025                            | 300        | 1900                       |
| B72260B0381K001 | 620                  | ±10                         | 1025                            | 500        | 4600                       |
| B72280B0381K001 | 620                  | ±10                         | 1025                            | 800        | 9000                       |


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

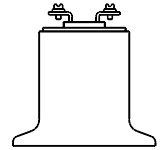
| Ordering code   | Type                   | $V_{RMS}$ | $V_{DC}$ | $i_{max}$<br>(8/20 $\mu$ s) | $W_{max}$<br>(2 ms) | $P_{max}$ |
|-----------------|------------------------|-----------|----------|-----------------------------|---------------------|-----------|
|                 | SIOV-                  | V         | V        | A                           | J                   | W         |
| B72232B0421K001 | B32K420                | 420       | 560      | 25000                       | 600                 | 1.2       |
| B72240B0421K001 | B40K420                | 420       | 560      | 40000                       | 910                 | 1.4       |
| B72260B0421K001 | B60K420                | 420       | 560      | 70000                       | 1500                | 1.6       |
| B72280B0421K001 | B80K420                | 420       | 560      | 100000                      | 2200                | 2.0       |
| B72232B0441K001 | B32K440                | 440       | 585      | 25000                       | 630                 | 1.2       |
| B72240B0441K001 | B40K440                | 440       | 585      | 40000                       | 950                 | 1.4       |
| B72260B0441K001 | B60K440                | 440       | 585      | 70000                       | 1580                | 1.6       |
| B72280B0441K001 | B80K440                | 440       | 585      | 100000                      | 2350                | 2.0       |
| B72232B0461K001 | B32K460                | 460       | 615      | 25000                       | 660                 | 1.2       |
| B72240B0461K001 | B40K460                | 460       | 615      | 40000                       | 1000                | 1.4       |
| B72260B0461K001 | B60K460                | 460       | 615      | 70000                       | 1650                | 1.6       |
| B72280B0461K001 | B80K460                | 460       | 615      | 100000                      | 2500                | 2.0       |
| B72232B0551K001 | B32K550                | 550       | 745      | 25000                       | 620                 | 1.2       |
| B72240B0551K001 | B40K550                | 550       | 745      | 40000                       | 960                 | 1.4       |
| B72260B0551K001 | B60K550                | 550       | 745      | 70000                       | 1500                | 1.6       |
| B72280B0551K001 | B80K550                | 550       | 745      | 100000                      | 3100                | 2.0       |
| B72232B0681K001 | B32K680                | 680       | 895      | 25000                       | 760                 | 1.2       |
| B72240B0681K001 | B40K680                | 680       | 895      | 40000                       | 1100                | 1.4       |
| B72260B0681K001 | B60K680                | 680       | 895      | 70000                       | 1800                | 1.6       |
| B72280B0681K001 | B80K680                | 680       | 895      | 100000                      | 3600                | 2.0       |
| B72232B0751K001 | B32K750                | 750       | 970      | 25000                       | 800                 | 1.2       |
| B72240B0751K001 | B40K750                | 750       | 970      | 40000                       | 1200                | 1.4       |
| B72260B0751K001 | B60K750                | 750       | 970      | 70000                       | 2000                | 1.6       |
| B72280B0751K001 | B80K750                | 750       | 970      | 100000                      | 4000                | 2.0       |
| B72260B0102K001 | B60K1000 <sup>1)</sup> | 1100      | 1465     | 70000                       | 3000                | 1.6       |
| B72280B0112K001 | B80K1100               | 1100      | 1465     | 100000                      | 6000                | 2.0       |

Varistor elements without plastic housing (suitable for soldering) are available upon request.

1) Operating voltage differs from type designation

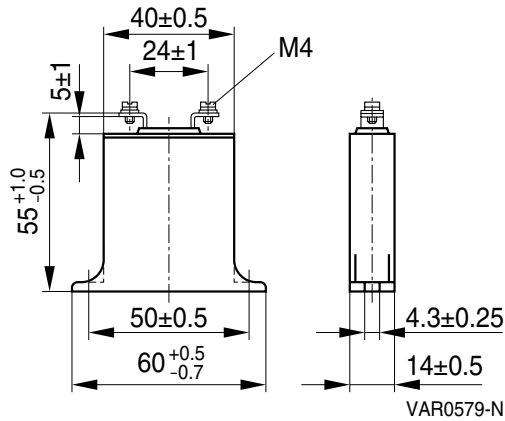

**Block varistors**
**HighE series**
**Characteristics** ( $T_A = 25\text{ °C}$ )

| Ordering code   | $V_V$<br>(1 mA)<br>V | $\Delta V_V$<br>(1 mA)<br>% | $V_{c, \max}$<br>( $i_c$ )<br>V | $i_c$<br>A | $C_{typ}$<br>(1 kHz)<br>pF |
|-----------------|----------------------|-----------------------------|---------------------------------|------------|----------------------------|
| B72232B0421K001 | 680                  | ±10                         | 1120                            | 200        | 1300                       |
| B72240B0421K001 | 680                  | ±10                         | 1120                            | 300        | 1800                       |
| B72260B0421K001 | 680                  | ±10                         | 1120                            | 500        | 4300                       |
| B72280B0421K001 | 680                  | ±10                         | 1120                            | 800        | 8500                       |
| B72232B0441K001 | 715                  | ±10                         | 1180                            | 200        | 1250                       |
| B72240B0441K001 | 715                  | ±10                         | 1180                            | 300        | 1700                       |
| B72260B0441K001 | 715                  | ±10                         | 1180                            | 500        | 4100                       |
| B72280B0441K001 | 715                  | ±10                         | 1180                            | 800        | 8100                       |
| B72232B0461K001 | 750                  | ±10                         | 1240                            | 200        | 1200                       |
| B72240B0461K001 | 750                  | ±10                         | 1240                            | 300        | 1600                       |
| B72260B0461K001 | 750                  | ±10                         | 1240                            | 500        | 3900                       |
| B72280B0461K001 | 750                  | ±10                         | 1240                            | 800        | 7700                       |
| B72232B0551K001 | 910                  | ±10                         | 1500                            | 200        | 1000                       |
| B72240B0551K001 | 910                  | ±10                         | 1500                            | 300        | 1400                       |
| B72260B0551K001 | 910                  | ±10                         | 1500                            | 500        | 3300                       |
| B72280B0551K001 | 910                  | ±10                         | 1500                            | 800        | 6500                       |
| B72232B0681K001 | 1100                 | ±10                         | 1815                            | 200        | 830                        |
| B72240B0681K001 | 1100                 | ±10                         | 1815                            | 300        | 1100                       |
| B72260B0681K001 | 1100                 | ±10                         | 1815                            | 500        | 2600                       |
| B72280B0681K001 | 1100                 | ±10                         | 1815                            | 800        | 5200                       |
| B72232B0751K001 | 1200                 | ±10                         | 2000                            | 200        | 800                        |
| B72240B0751K001 | 1200                 | ±10                         | 2000                            | 300        | 1000                       |
| B72260B0751K001 | 1200                 | ±10                         | 2000                            | 500        | 2400                       |
| B72280B0751K001 | 1200                 | ±10                         | 2000                            | 800        | 4800                       |
| B72260B0102K001 | 1800                 | ±10                         | 2970                            | 500        | 1600                       |
| B72280B0112K001 | 1800                 | ±10                         | 2970                            | 800        | 3200                       |



**Dimensions**

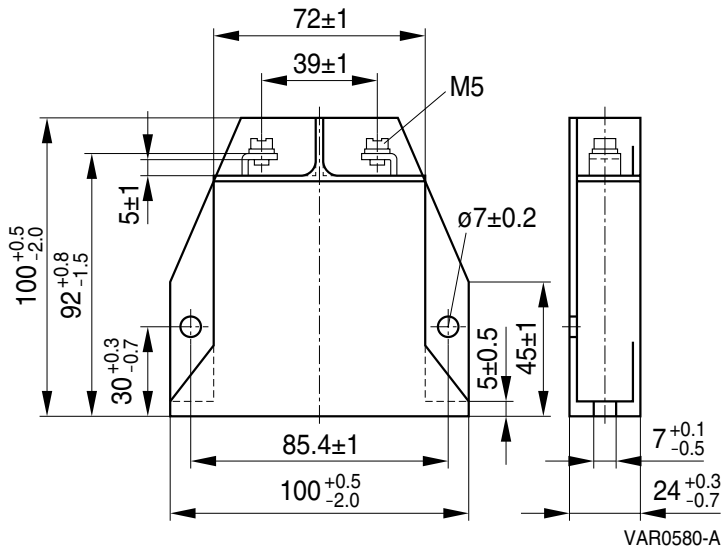
**SIOV-B32/-B40**



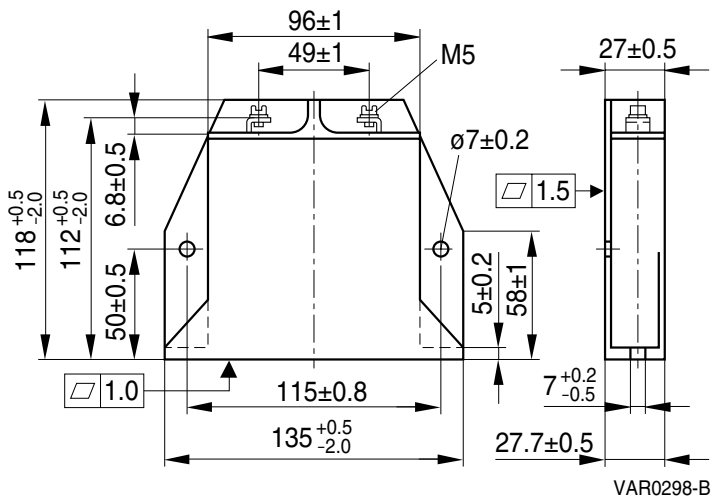
**Weight**

| Nominal diameter<br>mm | V <sub>RMS</sub><br>V | Weight<br>g |
|------------------------|-----------------------|-------------|
| 32                     | 130 ... 750           | 45          |
| 40                     | 75 ... 750            | 50          |
| 60                     | 130 ... 1100          | 250         |
| 80                     | 130 ... 1100          | 650         |

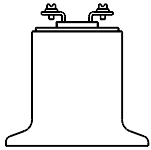
**SIOV-B60**



**SIOV-B80**



Dimensions in mm



## Block varistors

### HighE series

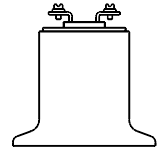
#### Reliability data

| Test                            | Test methods/conditions  | Requirement  |
|---------------------------------|--|--|
| Varistor voltage                | The voltage between two terminals with the specified measuring current applied is called $V_V$ (1 mA <sub>DC</sub> @ 0.2 ... 2 s).   | To meet the specified value.   |
| Clamping voltage                | The maximum voltage between two terminals with the specified standard impulse current (8/20 μs) applied.   | To meet the specified value.   |
| Max. DC operating voltage       | The maximum allowable DC operating voltage $V_{DC}$ at UCT +5/-0 °C is applied for 1000 ±48 h.<br><br>The leakage current $I_{leak}$ (t) during test is recorded.<br>Then the specimen shall be stored at room temperature and normal humidity for 1 to 2 h.<br>Thereafter, the change of $V_V$ shall be measured. | $I_{leak}(t = 1000 \text{ h}) \leq I_{leak}(t = 0 \text{ h})$<br>$ \Delta V/V (1 \text{ mA})  \leq 10\%$ |
| Surge current derating, 8/20 μs | 10 surge currents (8/20 μs), unipolar, interval ≥60 s, amplitude corresponding to derating curve for 10 impulses at 20 μs  | $ \Delta V/V (1 \text{ mA})  \leq 10\%$<br>(measured in direction of surge current)<br>No visible damage |
| Fast temperature cycling        | IEC 60068-2-14, test Na, LCT/UCT, dwell time 120 min, 5 cycles   | $ \Delta V/V (1 \text{ mA})  \leq 10\%$<br>No visible damage   |
| Damp heat, steady state         | IEC 60068-2-78<br><br>The specimen shall be subjected to 40 ±2 °C, 90 to 95% r. H. for 56 ±2 days with 10% of the maximum continuous DC operating voltage $V_{DC}$ .<br>Then stored at room temperature and normal humidity for 1 to 2 h.<br>Thereafter, the change of $V_V$ shall be measured.                    | $ \Delta V/V (1 \text{ mA})  \leq 10\%$  |

#### Note:

UCT = Upper category temperature  
LCT = Lower category temperature

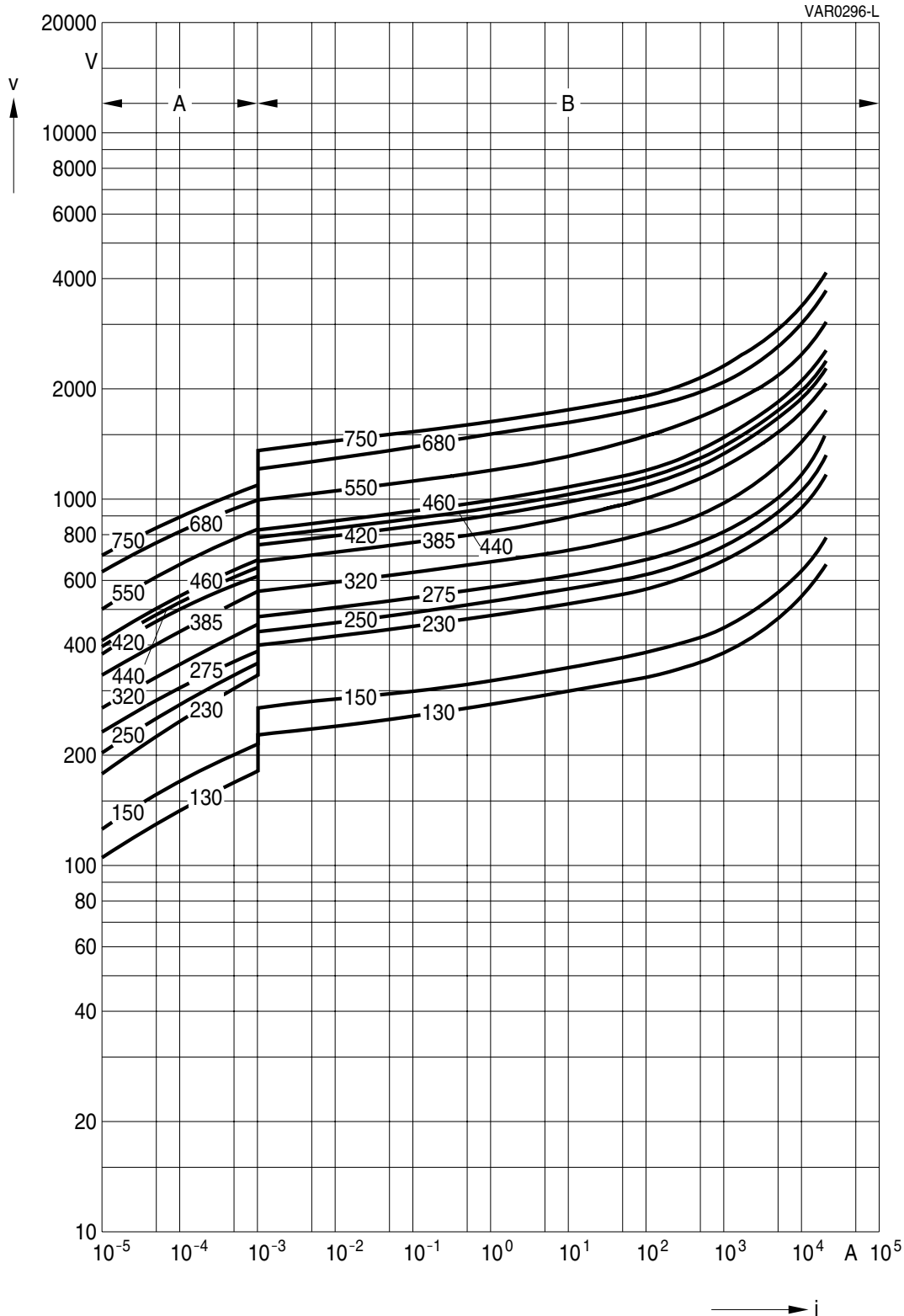




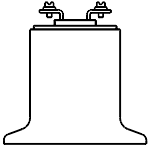
**v/i characteristics**

$v = f(i)$  – for explanation of the characteristics refer to “General technical information”, 1.6.3

A = Leakage current  
 B = Protection level { for worst-case varistor tolerances



**SIOV-B32K130 ... K750**



## Block varistors

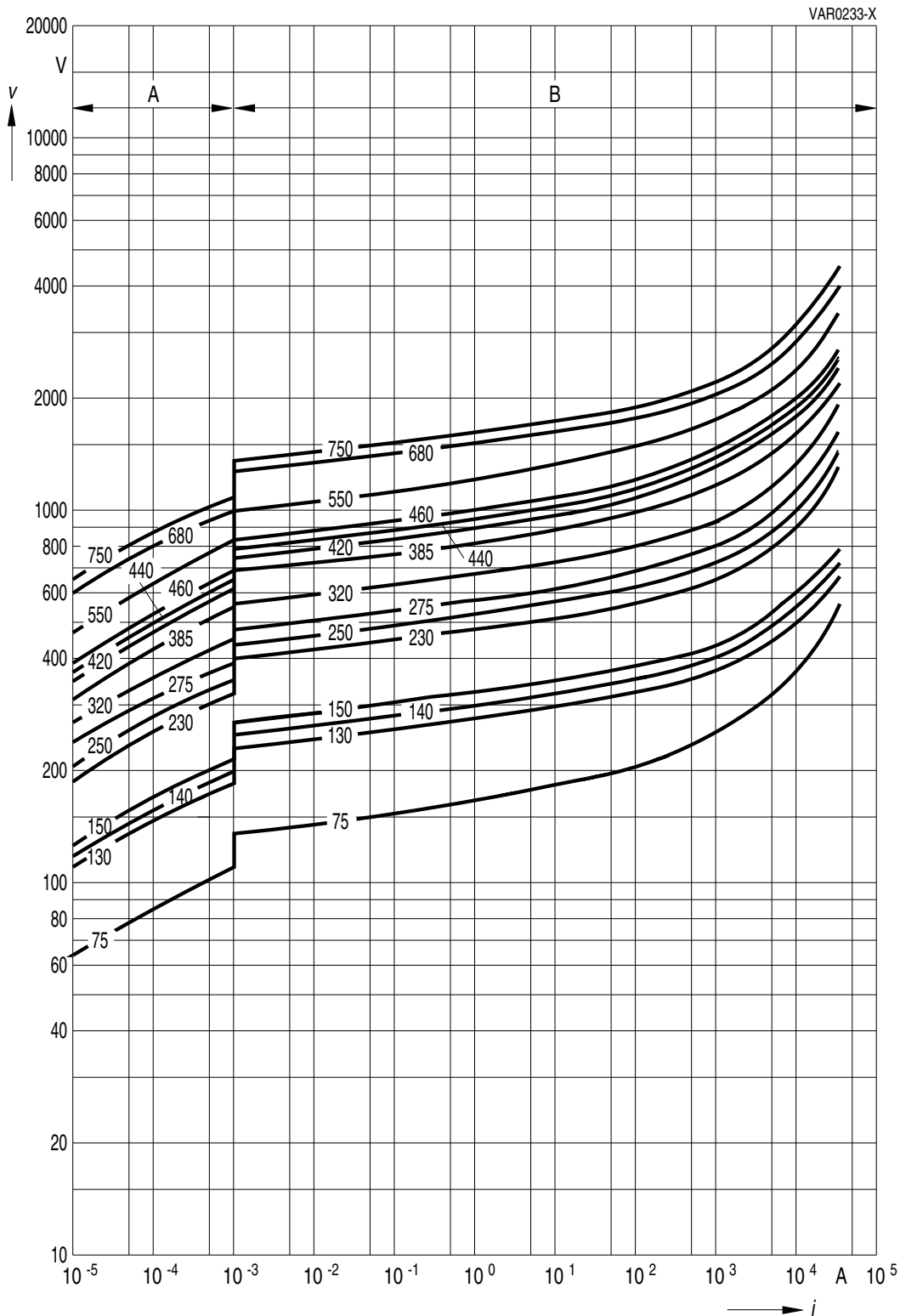
### HighE series

#### v/i characteristics

$v = f(i)$  – for explanation of the characteristics refer to “General technical information”, 1.6.3

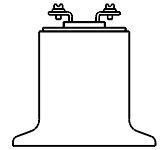
A = Leakage current  
B = Protection level

for worst-case varistor tolerances



#### SIOV-B40K75 ... K750

Please read *Cautions and warnings* and *Important notes* at the end of this document.

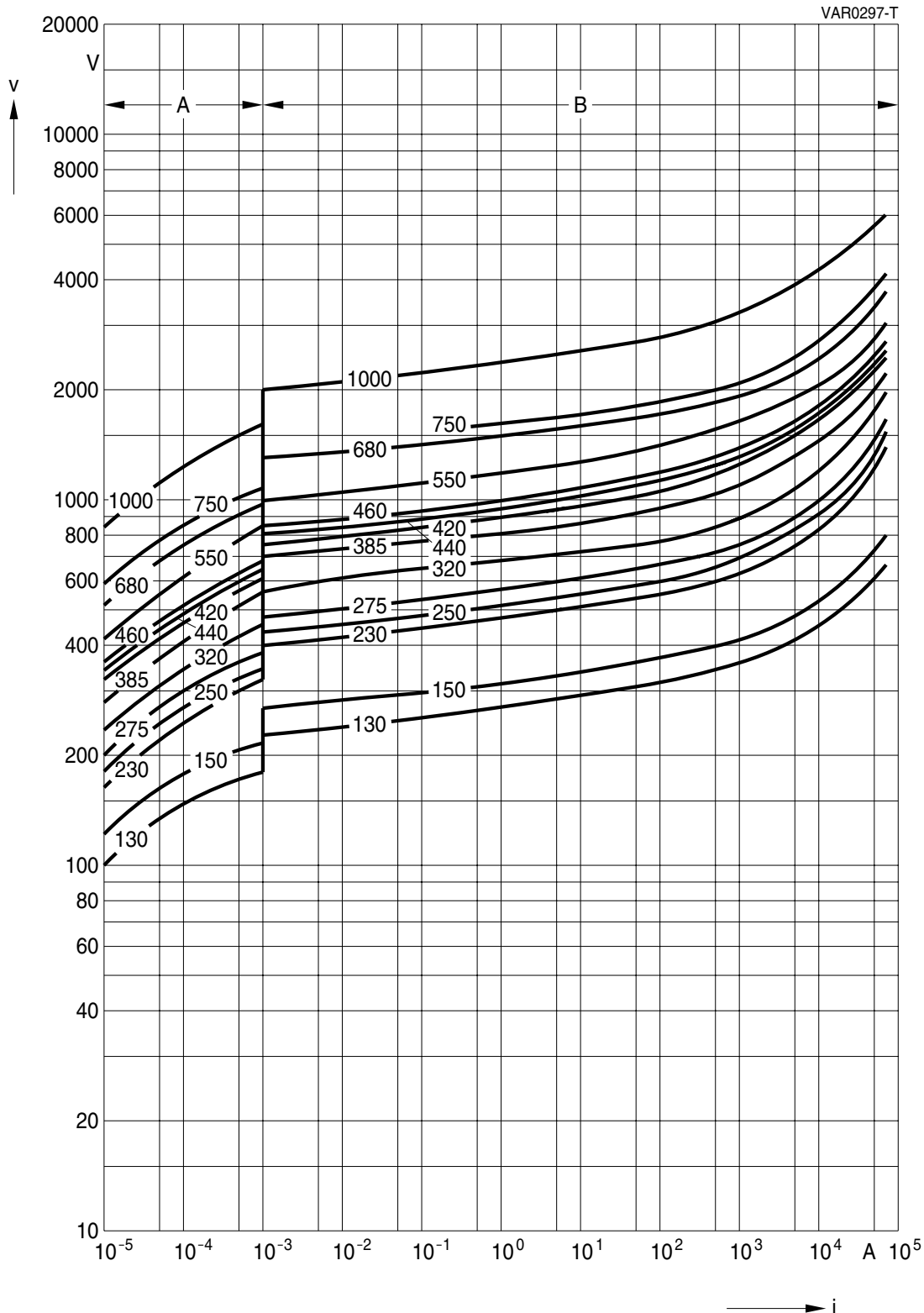


**v/i characteristics**

$v = f(i)$  – for explanation of the characteristics refer to “General technical information”, 1.6.3

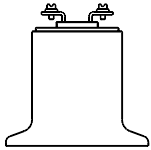
A = Leakage current  
 B = Protection level

for worst-case varistor tolerances



**SIOV-B60K130 ... K1000**

Please read *Cautions and warnings* and *Important notes* at the end of this document.



## Block varistors

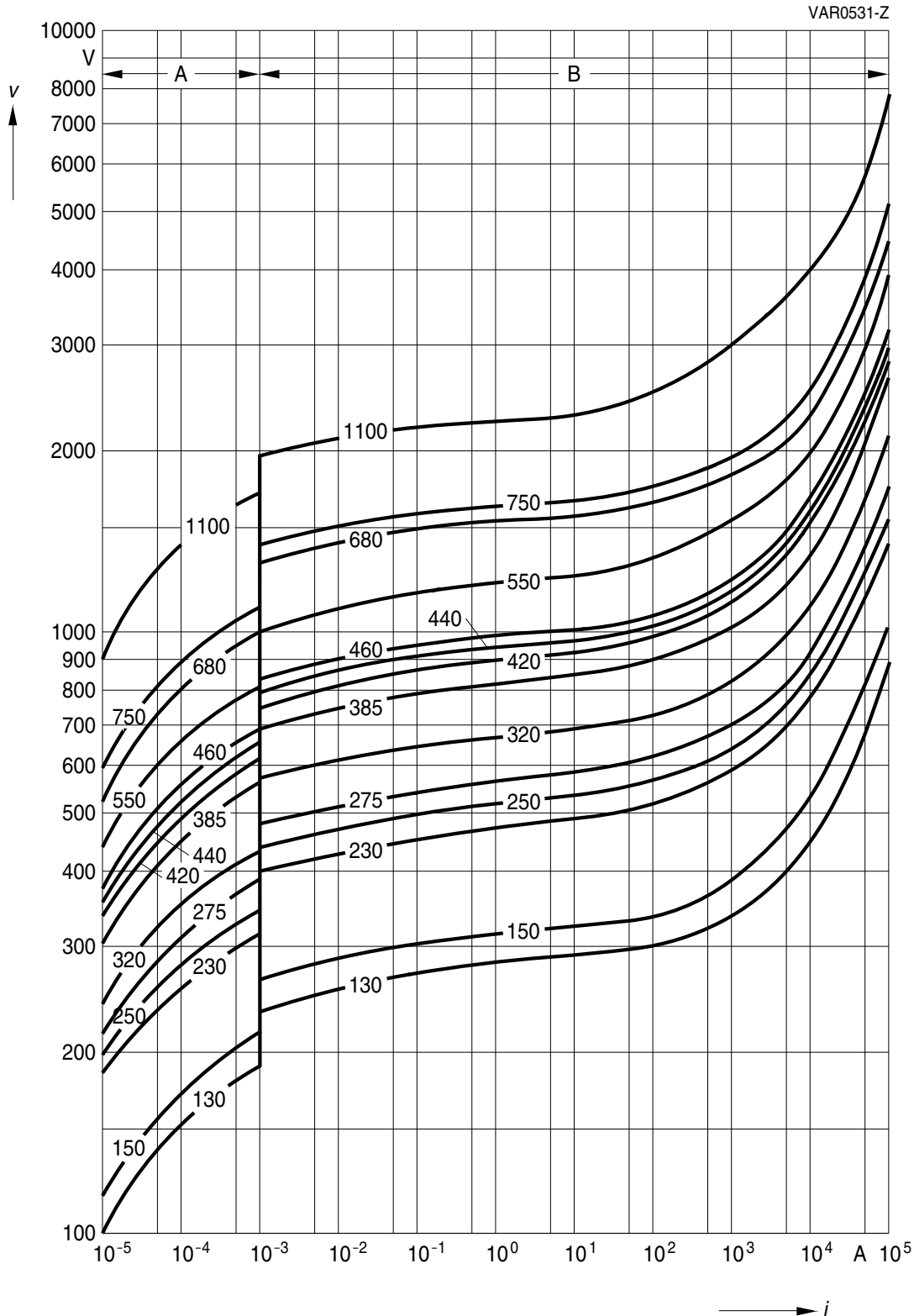
### HighE series

#### v/i characteristics

$v = f(i)$  – for explanation of the characteristics refer to “General technical information”, 1.6.3

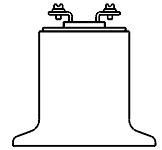
A = Leakage current  
B = Protection level

for worst-case varistor tolerances



#### SIOV-B80K130 ... K1100

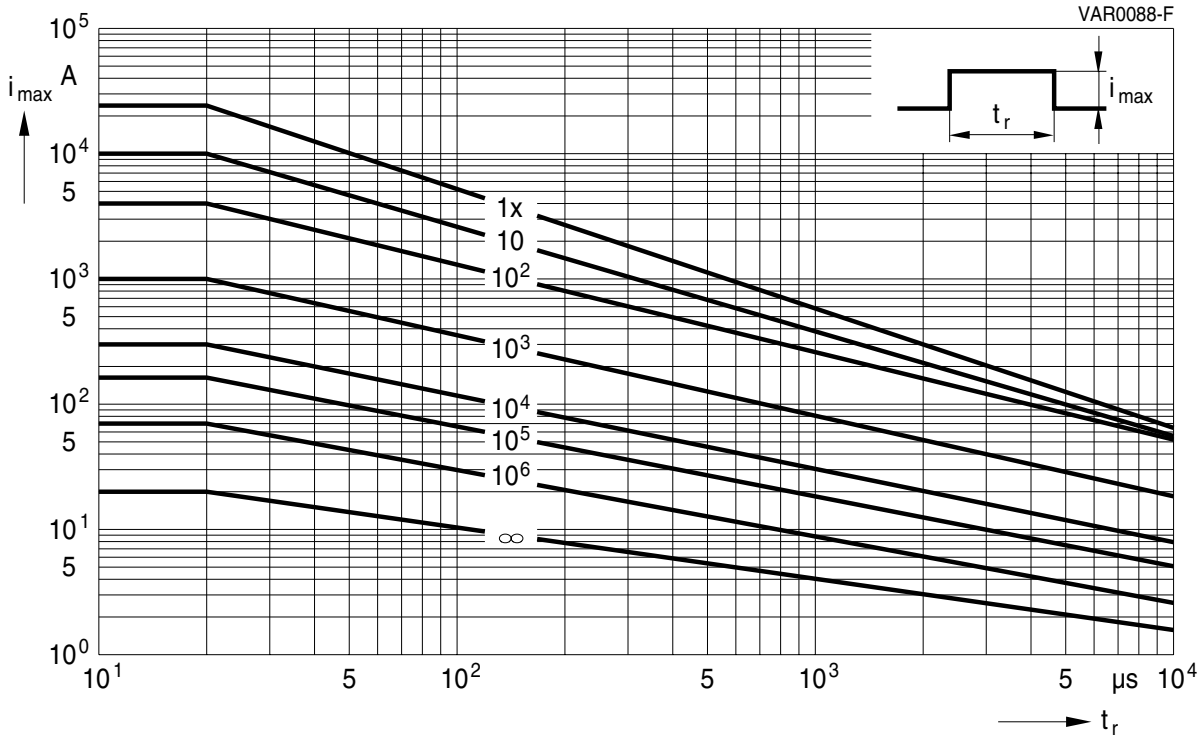
Please read *Cautions and warnings* and *Important notes* at the end of this document.



### Derating curves

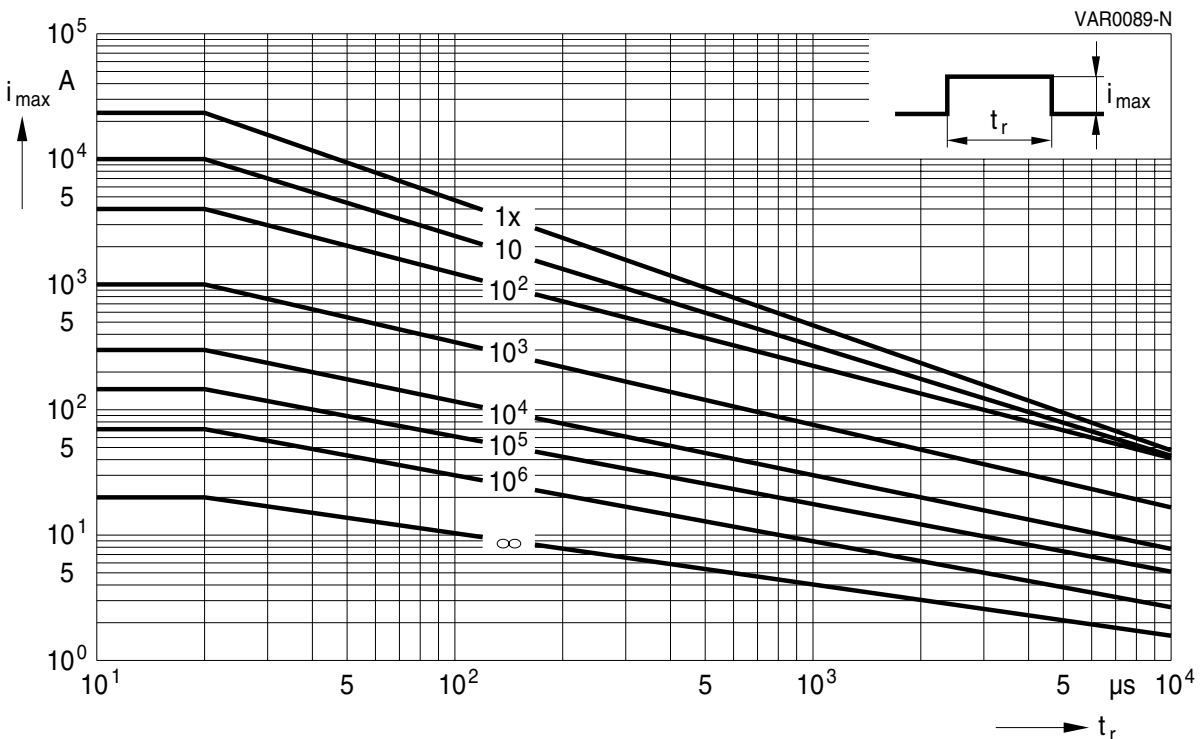
Maximum surge current  $i_{max} = f(t_r, \text{pulse train})$

For explanation of the derating curves refer to "General technical information", section 1.8.1

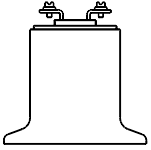


SIOV-B32K130 ... K150

SIOV-B40K75



SIOV-B32K230 ... K460



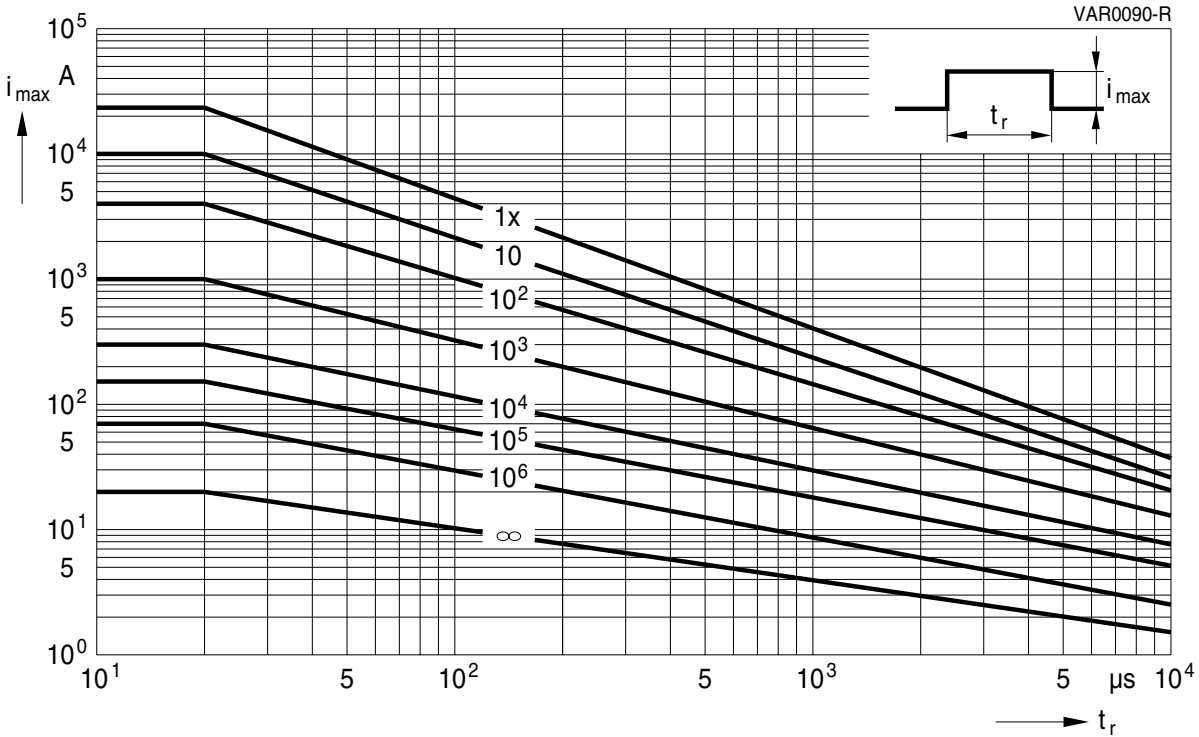
**Block varistors**

**HighE series**

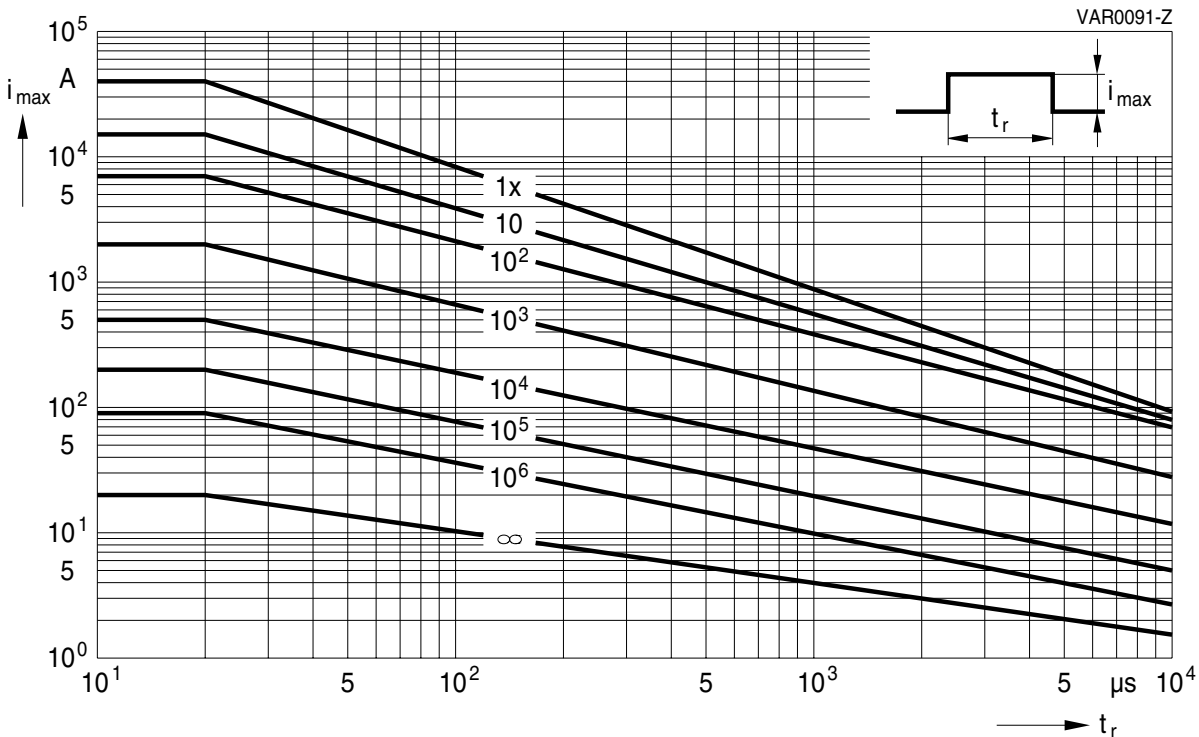
**Derating curves**

Maximum surge current  $i_{max} = f(t_r, \text{pulse train})$

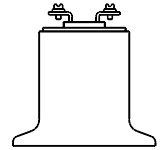
For explanation of the derating curves refer to "General technical information", section 1.8.1



**SIOV-B32K550 ... K750**



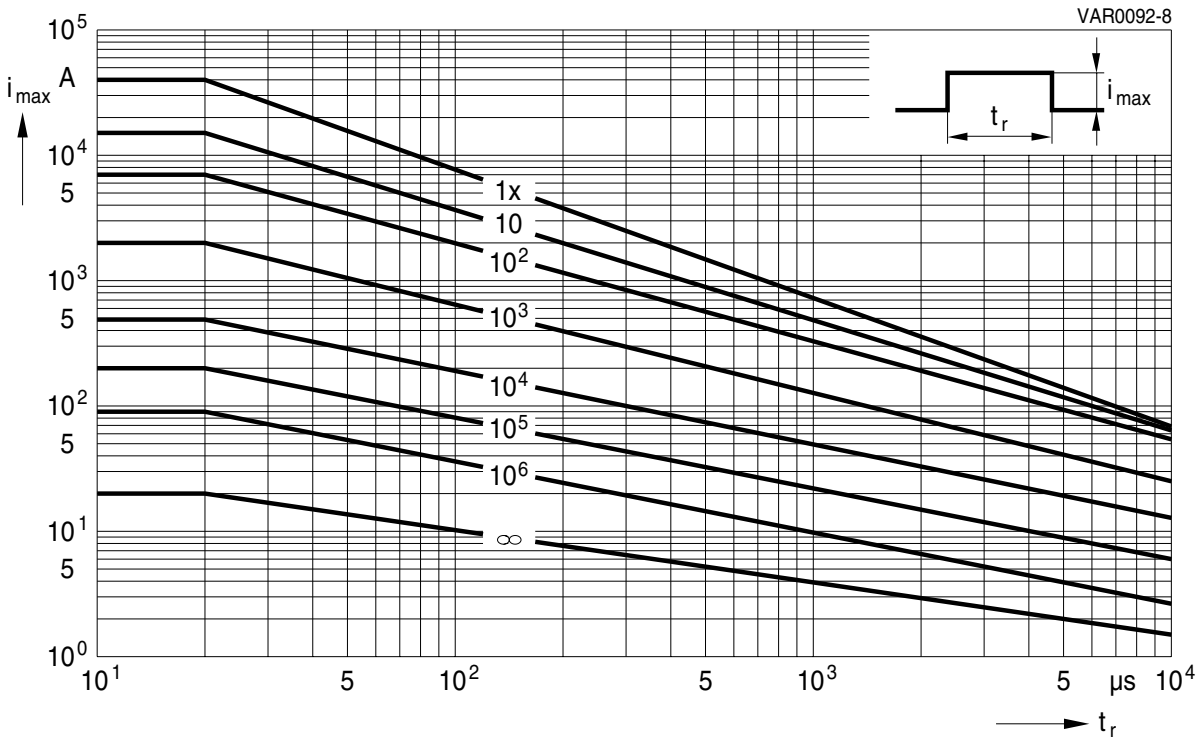
**SIOV-B40K130 ... K150**



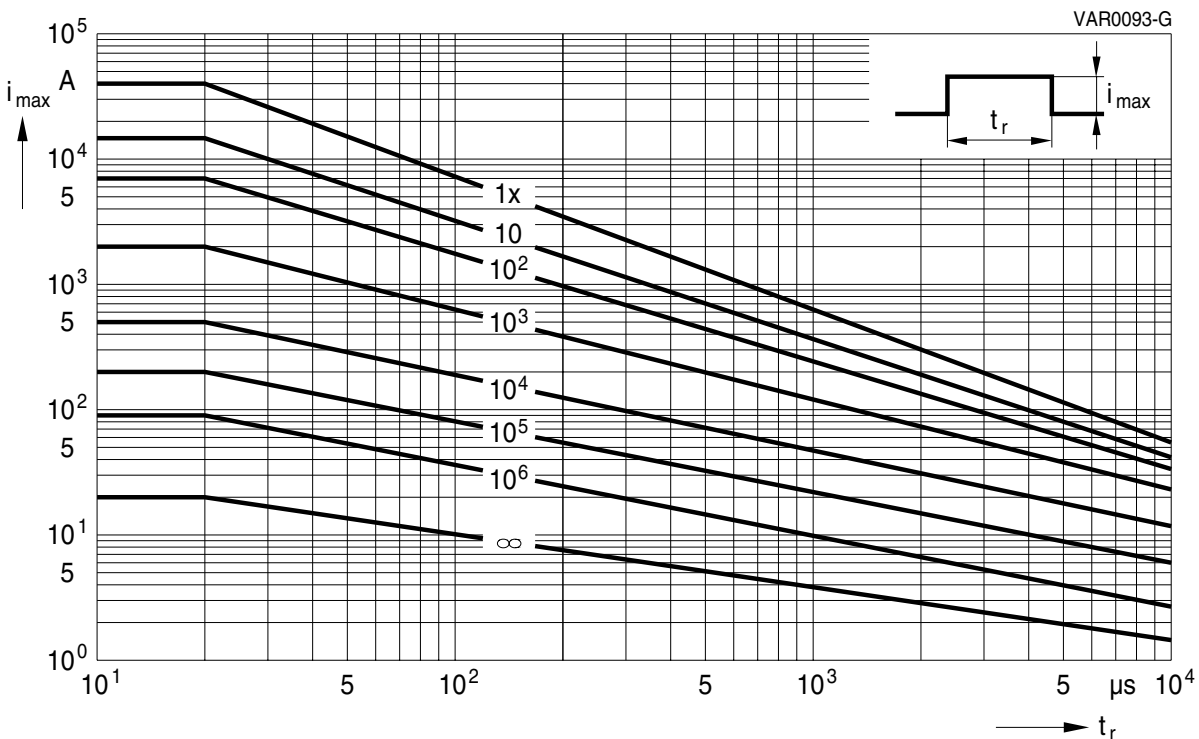
### Derating curves

Maximum surge current  $i_{max} = f(t_r, \text{pulse train})$

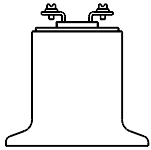
For explanation of the derating curves refer to "General technical information", section 1.8.1



### SIOV-B40K230 ... K460



### SIOV-B40K550 ... K750



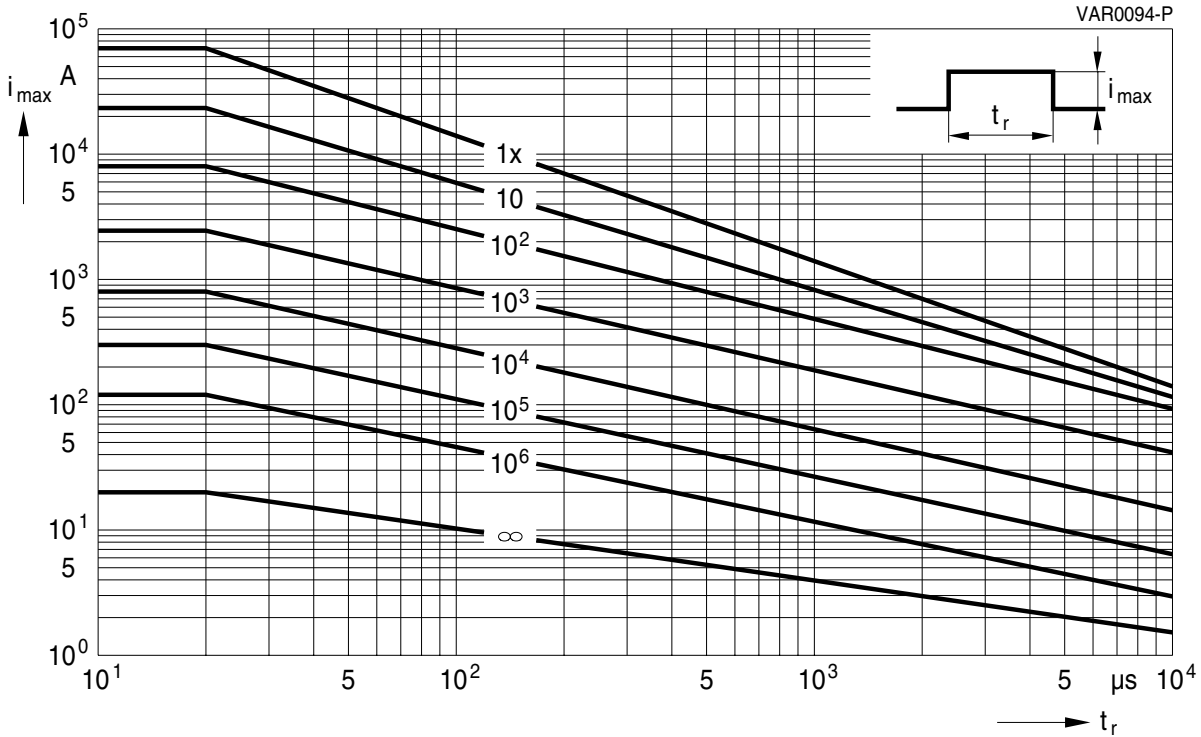
**Block varistors**

**HighE series**

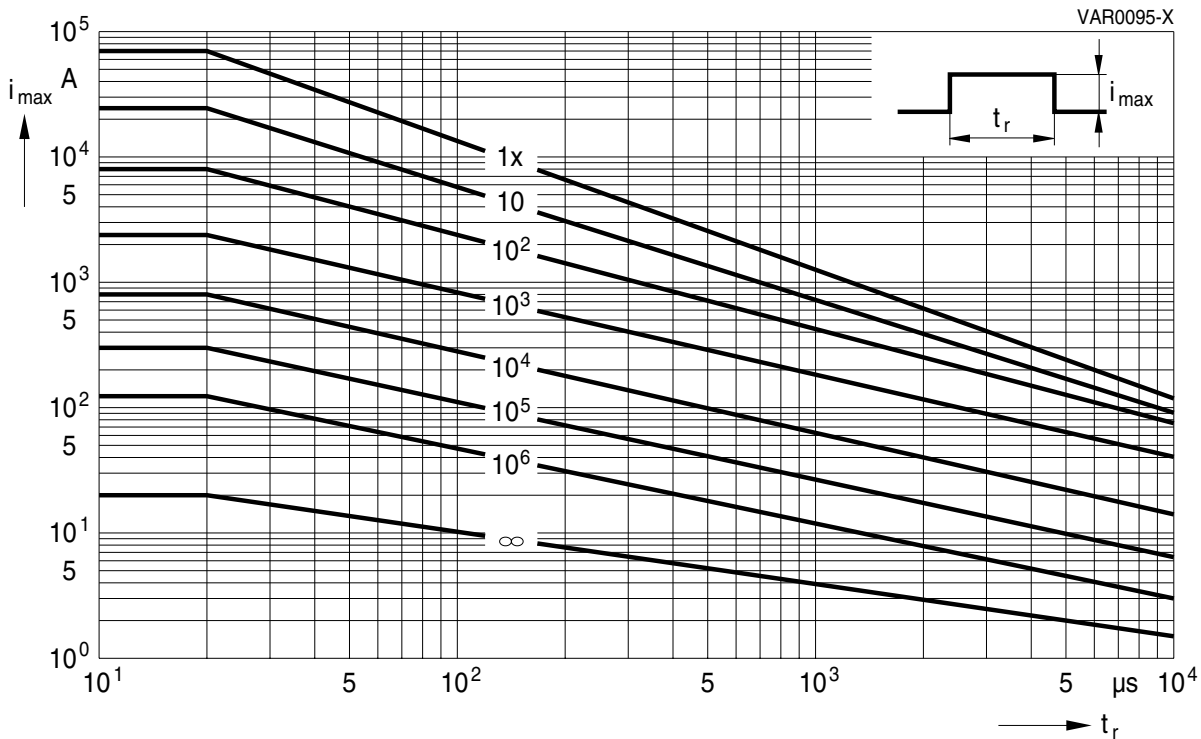
**Derating curves**

Maximum surge current  $i_{max} = f(t_r, \text{pulse train})$

For explanation of the derating curves refer to "General technical information", section 1.8.1

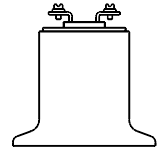


**SIOV-B60K130 ... K150**



**SIOV-B60K230 ... K460**

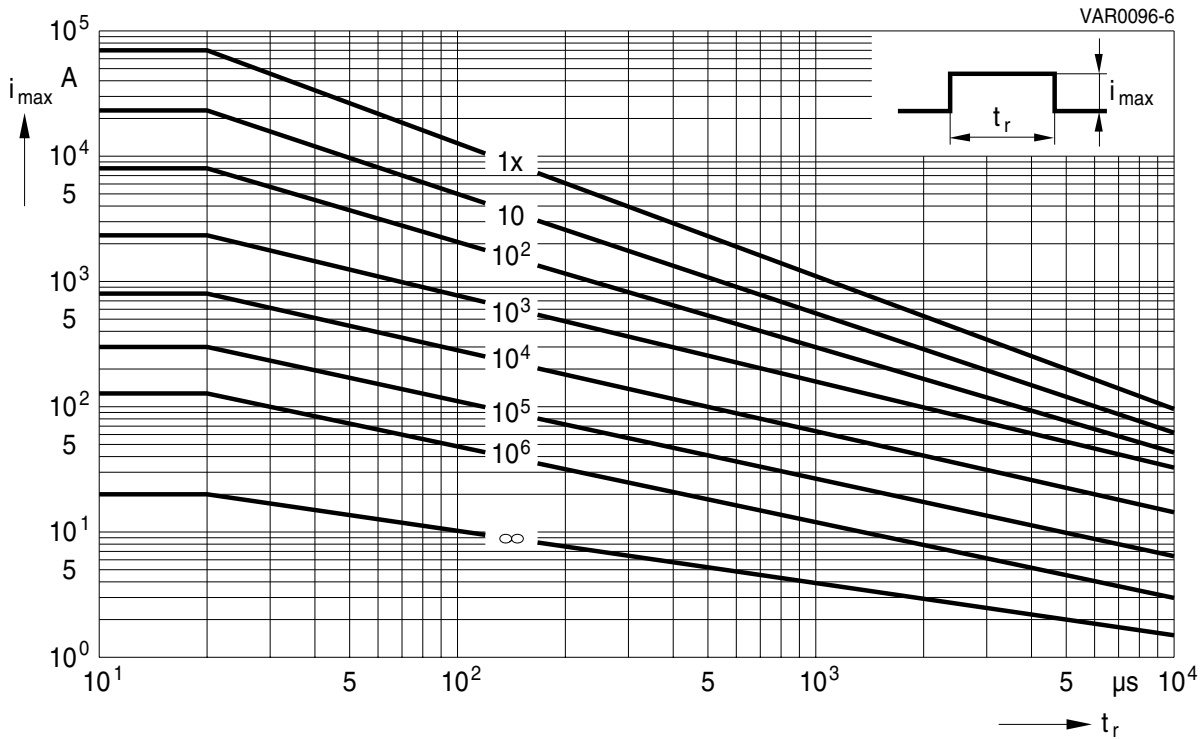




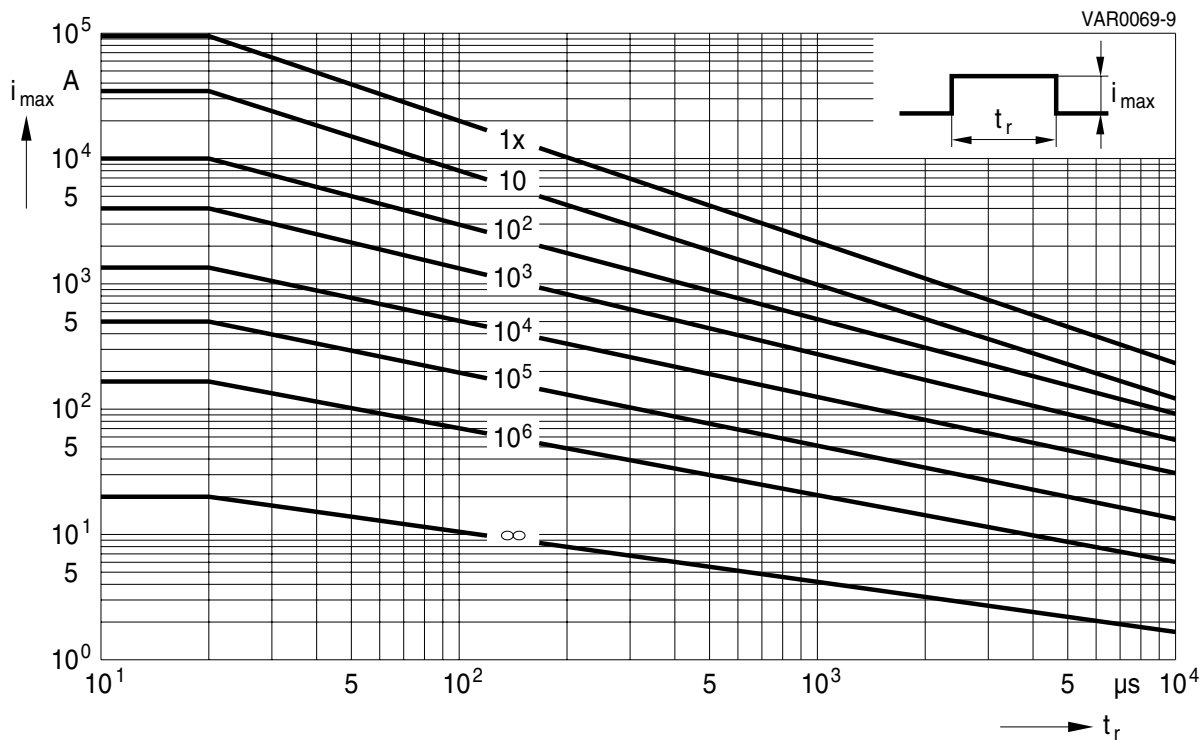
### Derating curves

Maximum surge current  $i_{max} = f(t_r, \text{pulse train})$

For explanation of the derating curves refer to "General technical information", section 1.8.1



### SIOV-B60K550 ... K1000



### SIOV-B80K130 ... K1100

## Cautions and warnings

### General

1. EPCOS metal oxide varistors (SIOVs) are designed for specific applications and should not be used for purposes not identified in our specifications, application notes and data books unless otherwise agreed with EPCOS during the design-in-phase.
2. Ensure suitability of SIOVs through reliability testing during the design-in phase. SIOVs should be evaluated taking into consideration worst-case conditions.
3. For applications of SIOVs in line-to-ground circuits based on various international and local standards there are restrictions existing or additional safety measures required.

### Storage

1. Store SIOVs only in original packaging. Do not open the package before storage.
2. Storage conditions in original packaging:  
Storage temperature:  $-25\text{ °C} \dots +45\text{ °C}$   
Relative humidity:  $<75\%$  annual average,  
 $<95\%$  on maximum 30 days a year.  
Dew precipitation: Is to be avoided.
3. Avoid contamination of an SIOV's surface during storage, handling and processing.
4. Avoid storage of SIOVs in harmful environments that can affect the function during long-term operation (examples given under operation precautions).
5. The SIOV type series should be soldered within the time specified:  
SIOV-S, -Q, -LS      24 months  
ETFV and SFS types   12 months.

### Handling

1. SIOVs must not be dropped.
2. Components must not be touched with bare hands. Gloves are recommended.
3. Avoid contamination of the surface of SIOV electrodes during handling, be careful of the sharp edge of SIOV electrodes.

### Soldering (where applicable)

1. Use rosin-type flux or non-activated flux.
2. Insufficient preheating may cause ceramic cracks.
3. Rapid cooling by dipping in solvent is not recommended.
4. Complete removal of flux is recommended.

## Block varistors

### HighE series

#### Mounting

1. Potting, sealing or adhesive compounds can produce chemical reactions in the SIOV ceramic that will degrade the component's electrical characteristics.
2. Overloading SIOVs may result in ruptured packages and expulsion of hot materials. For this reason SIOVs should be physically shielded from adjacent components.

#### Operation

1. Use SIOVs only within the specified temperature operating range.
2. Use SIOVs only within the specified voltage and current ranges.
3. Environmental conditions must not harm SIOVs. Use SIOVs only in normal atmospheric conditions. Avoid use in the presence of deoxidizing gases (chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, etc), corrosive agents, humid or salty conditions. Avoid contact with any liquids and solvents.

## Important notes

The following applies to all products named in this publication:

1. 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 in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of passive electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of a passive electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of a passive electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous)**. Useful information on this will be found in our Material Data Sheets on the Internet ([www.epcos.com/material](http://www.epcos.com/material)). Should you have any more detailed questions, please contact our sales offices.
5. We constantly strive to improve our products. Consequently, **the products described in this publication may change from time to time**. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order. We also **reserve the right to discontinue production and delivery of products**. Consequently, we cannot guarantee that all products named in this publication will always be available. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.
6. Unless otherwise agreed in individual contracts, **all orders are subject to the current version of the “General Terms of Delivery for Products and Services in the Electrical Industry” published by the German Electrical and Electronics Industry Association (ZVEI)**.
7. The trade names EPCOS, BAOKE, Alu-X, CeraDiode, CSSP, DSSP, MiniBlue, MKK, MLSC, MotorCap, PCC, PhaseCap, PhaseMod, SIFERRIT, SIFI, SIKOREL, SilverCap, SIMDAD, SIMID, SineFormer, SIOV, SIP5D, SIP5K, ThermoFuse, WindCap are **trademarks registered or pending** in Europe and in other countries. Further information will be found on the Internet at [www.epcos.com/trademarks](http://www.epcos.com/trademarks).



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.