



Metal oxide varistor

Block Type

Series/Type:	B60K750
Ordering code:	B72260B0751K001
Date:	2011-03-28
Version:	1

Applications

Overtoltage protection.

Suitable for use in industrial applications.

Features

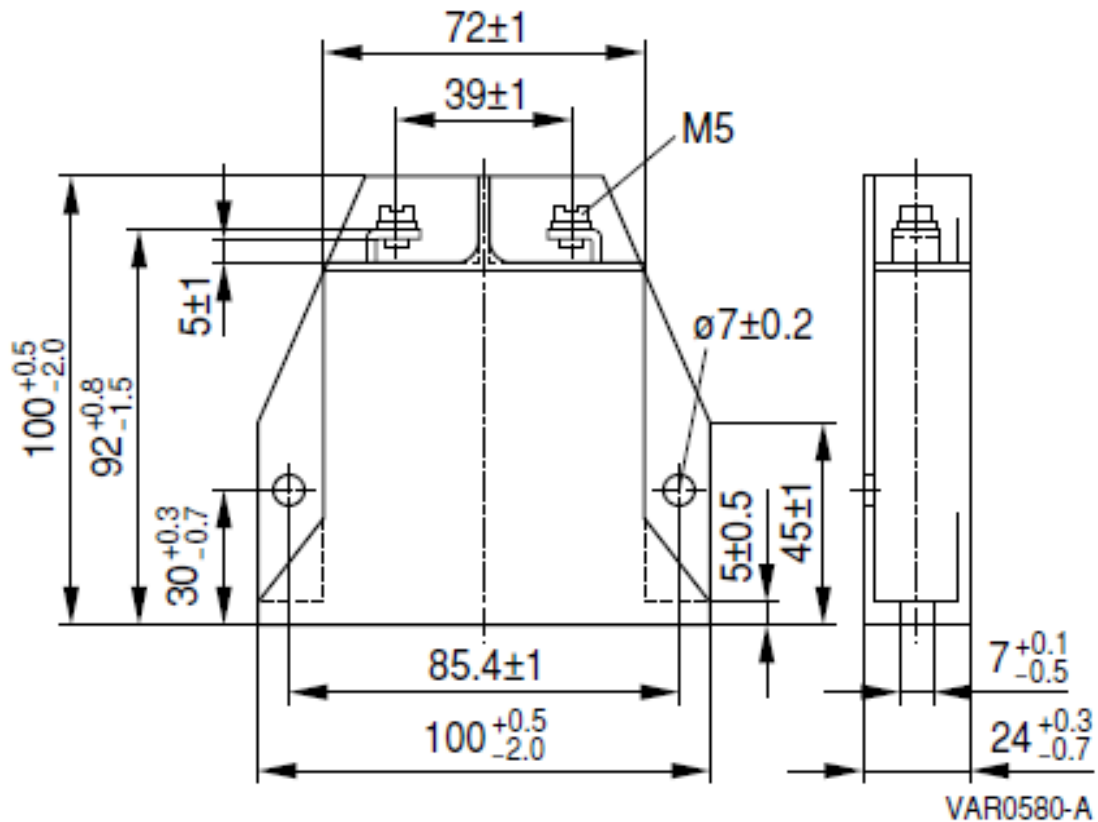
- Heavy-duty varistor (surge current capability 70kA)

Nomenclature

B	=	Block type
60	=	Rated disk diameter
K	=	Tolerance of V_V at 1mA : $\pm 10\%$
750	=	Max. AC voltage

Dimensional drawing in mm

SIOV-B60





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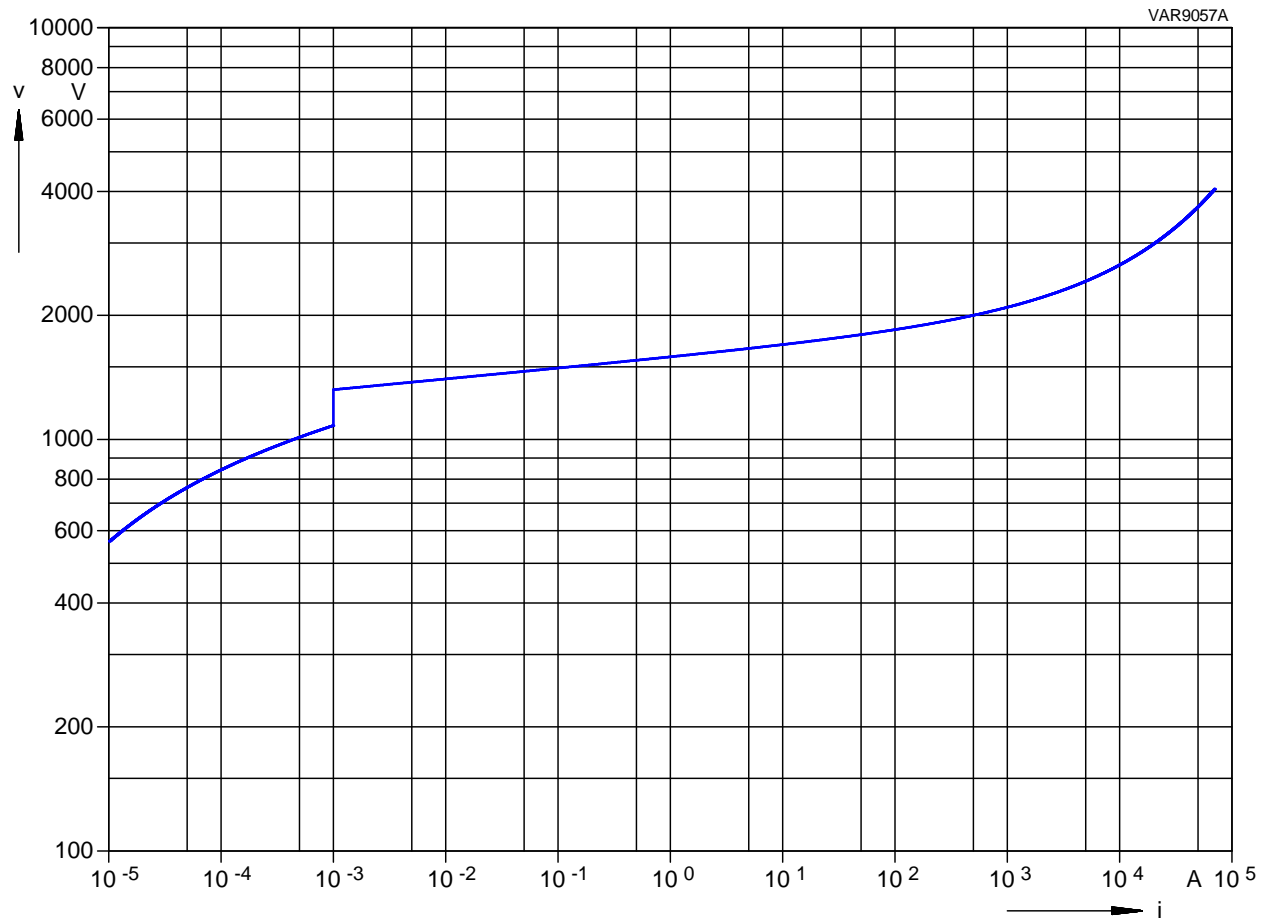
Electrical data

Max. operating AC voltage		V_{RMS}	=	750 V
Max. operating DC voltage		V_{DC}	=	970 V
Surge current (8/20 μ s)	1 time	I_{max}	=	70000 A
Energy absorption (2ms)	1 time	W_{max}	=	2000 J
Average power dissipation		P_{max}	=	1.6 W

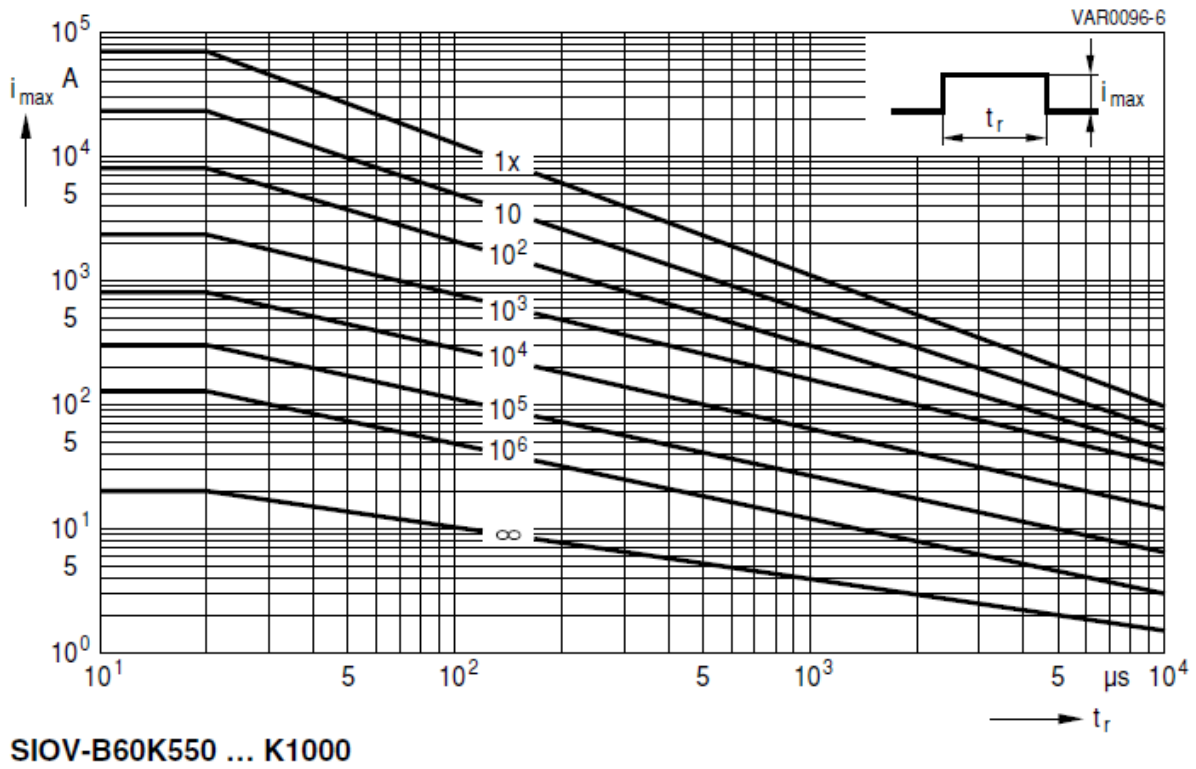
Characteristics (25 °C):

Varistor voltage at 1mA		V_V	=	1200 \pm 10%V
Clamping voltage at 500 A (8/20 μ s)		$V_{C,max}$	=	2000 V
Typ. capacitance at 1 kHz		C	=	2400 pF

V/I characteristics



Derating curve



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. The 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 °C ... +45 °C
Relative humidity: <75% annual average,
<95% on maximum 30 days a year.
Dew precipitation: Is to be avoided.
3. Avoid contamination of SIOVs surface during storage, handling and processing.
4. Avoid storage of SIOVs in harmful environments which 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 month
ETFV and SFS types 12 month.

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.

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 the 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 the 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.
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