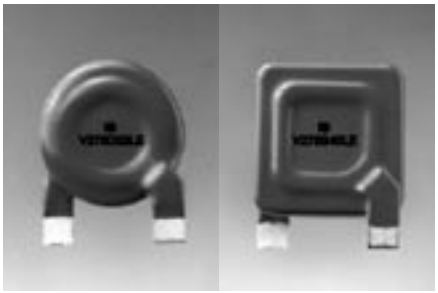
Description



LE types are heavy duty metal oxide varistors designed mainly for the industrial applications. They are larger diameter versions of the conventional metal oxide varistor disc components. LE Series has rigid terminals to handle high currents and energies. Either straight or formed terminals are available. The latter facilitates mounting onto printed circuit boards. LE Series offers an excellent surge protection for use in the industrial and consumer electrical equipment, power distribution control equipment, security/fire alarm systems, railroad equipment, switch boards, computers, telecommunication, power supplies and motor controls. The advantages of the LE version are: simple design, rigid terminals for secure mounting, high performances on limited space.

Main Features

Wide Operating Voltage Range V_{RMS} ..... 130 V to 1100 V
Two Model Sizes Available ..... 32 mm, square 33 mm
High Energy Absorption Capability W_{max} (2 ms) ..... 220 J - 1850 J
High Peak Current Capability I_{max} (8/20 µs) ..... 25000 A - 40000 A
Rigid Terminals for Secure Mounting
Other Designs Available (versions for through-hole mounting or special versions for modules with Thermocouple)
UL Specification #1449, File No.: E103662; Models D32, S40, all prefixed by V130, V140, V150, V175, V230, V250, V275, V300, V320, V385, V420, V460, V510, V550, V625, V680, V750, V1100 and followed by LE, IE, ME or FE

General Technical Data

Climatic Category LCT UCT Damp Heat, Steady state (93 % r.h., 40 °C)	40/85/56 -40 °C +85 °C 56 days	in accordance with IEC 68-1 in accordance with IEC 68-2-3
Operating temperature	-40 ... +85 °C	in accordance with CECC 42 000
Storage temperature	-40 ... +110 °C	
Electric strength	≥ 2.5 kV	in accordance with CECC 42 000
Insulation resistance	≥ 1.0 GΩ	in accordance with CECC 42 000
Response time	< 25 ns	

Type Designation

V 275 S 40 L E

VARSI
Metal Oxide Varistor

Max. AC operating voltage

Epoxy Coated

Version of Contacts
For Screw Mounting

Rated Diameter of Varistor Disc

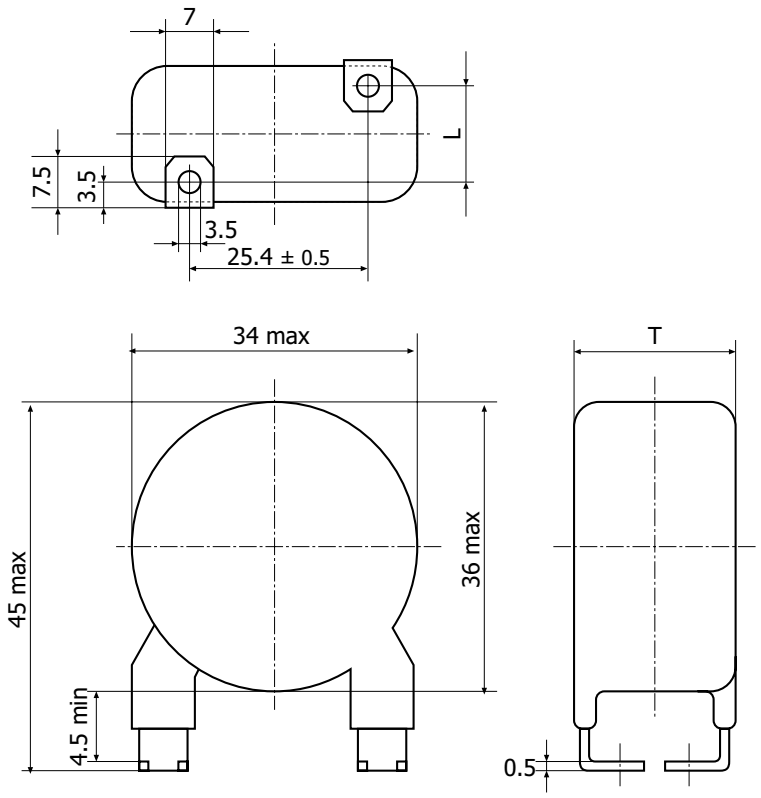
Varistor Design

Table of Standard Values

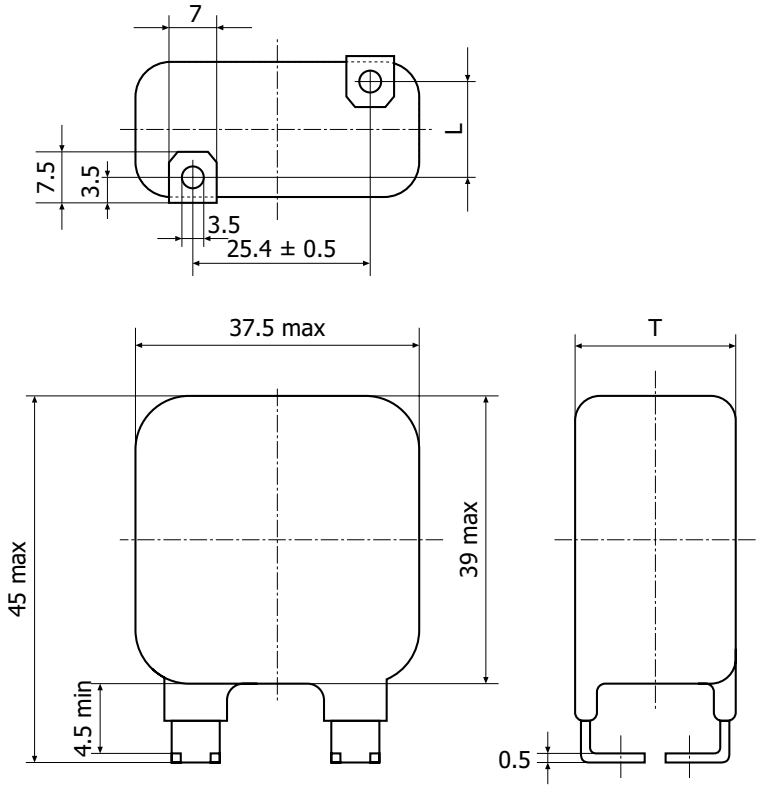
Part Number	Maximum Ratings T_A=+85 °C (+185 °F)					Characteristics T_A = +25 °C (+77 °F)					V - I Characteristic	Pulse Rating
	Operating Voltage		Average Power Dissipation	Permissible Peak Current (8/20 s)	Energy Absorption (2 ms)	Varistor Voltage (1 mA)		Maximum Clamping Voltage at Test Current (8/20 s)		Typical Capacitance f=1kHz		
	RMS Voltage	DC Voltage										
	V_{RMS} (V)	V_{DC} (V)	P_{max} (W)	I_{max} (A)	W_{max} (J)	V_N (V)	ΔV_N (%)	V_C (V)	I (A)	C (pF)	Page	Page
V130D32LE	130	170	1.2	25000	220	205	± 10	340	200	4400	56	59
V130S40LE	130	170	1.4	40000	320	205	± 10	340	300	5800	57	60
V140D32LE	140	180	1.2	25000	235	220	± 10	360	200	4100	56	59
V140S40LE	140	180	1.4	40000	340	220	± 10	360	300	5400	57	60
V150D32LE	150	200	1.2	25000	250	240	± 10	395	200	3700	56	59
V150S40LE	150	200	1.4	40000	370	240	± 10	395	300	5000	57	60
V175D32LE	175	225	1.2	25000	270	270	± 10	455	200	3000	56	59
V175S40LE	175	225	1.4	40000	410	270	± 10	455	300	4200	57	60
V230D32LE	230	300	1.2	25000	310	360	± 10	595	200	2500	56	59
V230S40LE	230	300	1.4	40000	470	360	± 10	595	300	3400	57	60
V250D32LE	250	320	1.2	25000	340	390	± 10	650	200	2200	56	59
V250S40LE	250	320	1.4	40000	505	390	± 10	650	300	3100	57	60
V275D32LE	275	350	1.2	25000	370	430	± 10	710	200	2000	56	59
V275S40LE	275	350	1.4	40000	565	430	± 10	710	300	2900	57	60
V300D32LE	300	385	1.2	25000	400	470	± 10	775	200	1900	56	59
V300S40LE	300	385	1.4	40000	600	470	± 10	775	300	2700	57	60
V320D32LE	320	420	1.2	25000	440	510	± 10	840	200	1700	56	59
V320S40LE	320	420	1.4	40000	655	510	± 10	840	300	2400	57	60
V385D32LE	385	505	1.2	25000	560	620	± 10	1025	200	1400	56	59
V385S40LE	385	505	1.4	40000	815	620	± 10	1025	300	2000	57	60
V420D32LE	420	560	1.2	25000	615	680	± 10	1120	200	1300	56	59
V420S40LE	420	560	1.4	40000	930	680	± 10	1120	300	1900	57	60
V440D32LE	440	585	1.2	25000	630	715	± 10	1180	200	1250	56	59
V440S40LE	440	585	1.4	40000	950	715	± 10	1180	300	1800	57	60
V460D32LE	460	615	1.2	25000	670	750	± 10	1240	200	1200	56	59
V460S40LE	460	615	1.4	40000	1010	750	± 10	1240	300	1700	57	60
V510D32LE	510	670	1.2	25000	690	820	± 10	1355	200	1100	56	59
V510S40LE	510	670	1.4	40000	1040	820	± 10	1355	300	1600	57	60
V550D32LE	550	745	1.2	25000	710	910	± 10	1500	200	1000	56	59
V550S40LE	550	745	1.4	40000	1080	910	± 10	1500	300	1500	57	60
V625D32LE	625	825	1.2	25000	730	1000	± 10	1650	200	950	56	59
V625S40LE	625	825	1.4	40000	1100	1000	± 10	1650	300	1400	57	60
V680D32LE	680	895	1.2	25000	780	1100	± 10	1815	200	850	56	59
V680S40LE	680	895	1.4	40000	1130	1100	± 10	1815	300	1200	57	60
V750D32LE	750	1060	1.2	25000	820	1200	± 10	1980	200	800	56	59
V750S40LE	750	1060	1.4	40000	1230	1200	± 10	1980	300	1100	57	60
V1100D32LE	1100	1465	1.2	25000	1200	1800	± 10	2970	200	600	56	59
V1100S40LE	1100	1465	1.4	40000	1850	1800	± 10	2970	300	800	57	60

Dimensions

Type D 32 LE



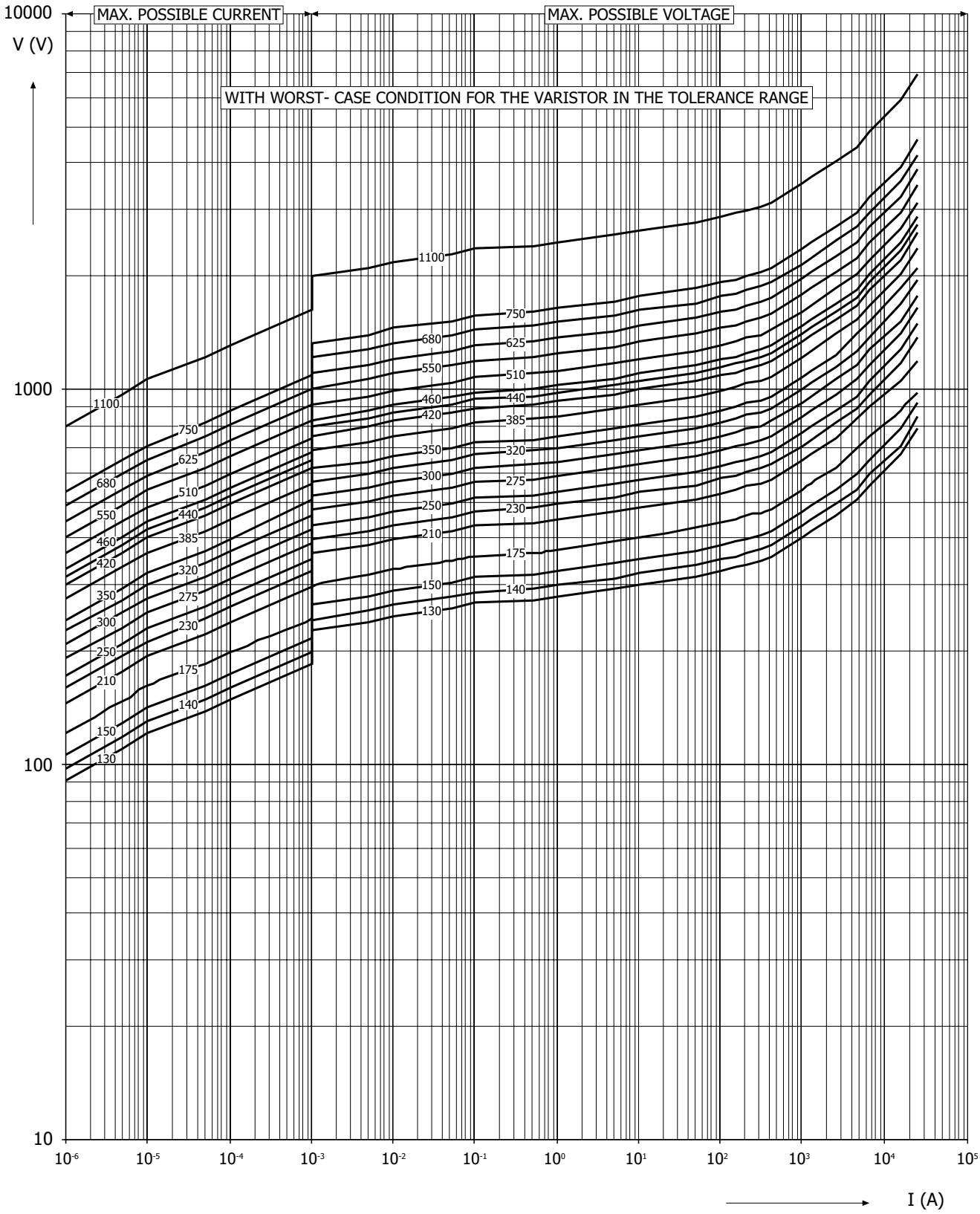
Type S 40 LE



Part Number	T max mm	L ± 1.0 mm
V130D32LE	8.0	-3.00
V130S40LE	8.0	-3.00
V140D32LE	8.1	-2.95
V140S40LE	8.1	-2.95
V150D32LE	8.2	-2.90
V150S40LE	8.2	-2.90
V175D32LE	8.6	-2.50
V175S40LE	8.6	-2.50
V230D32LE	8.9	-2.00
V230S40LE	8.9	-2.00
V250D32LE	9.1	-1.80
V250S40LE	9.1	-1.80
V275D32LE	9.3	-1.60
V275S40LE	9.3	-1.60
V300D32LE	9.6	-1.30
V300S40LE	9.6	-1.30
V320D32LE	9.8	-1.00
V320S40LE	9.8	-1.00
V385D32LE	10.6	-0.20
V385S40LE	10.6	-0.20
V420D32LE	11.0	0.20
V420S40LE	11.0	0.20
V440D32LE	11.2	0.40
V440S40LE	11.2	0.40
V460D32LE	11.4	0.60
V460S40LE	11.4	0.60
V510D32LE	12.0	1.30
V510S40LE	12.0	1.30
V550D32LE	12.4	1.50
V550S40LE	12.4	1.50
V625D32LE	13.0	2.00
V625S40LE	13.0	2.00
V680D32LE	13.5	2.60
V680S40LE	13.5	2.60
V750D32LE	14.1	3.20
V750S40LE	14.1	3.20
V1100D32LE	17.0	6.20
V1100S40LE	17.0	6.20

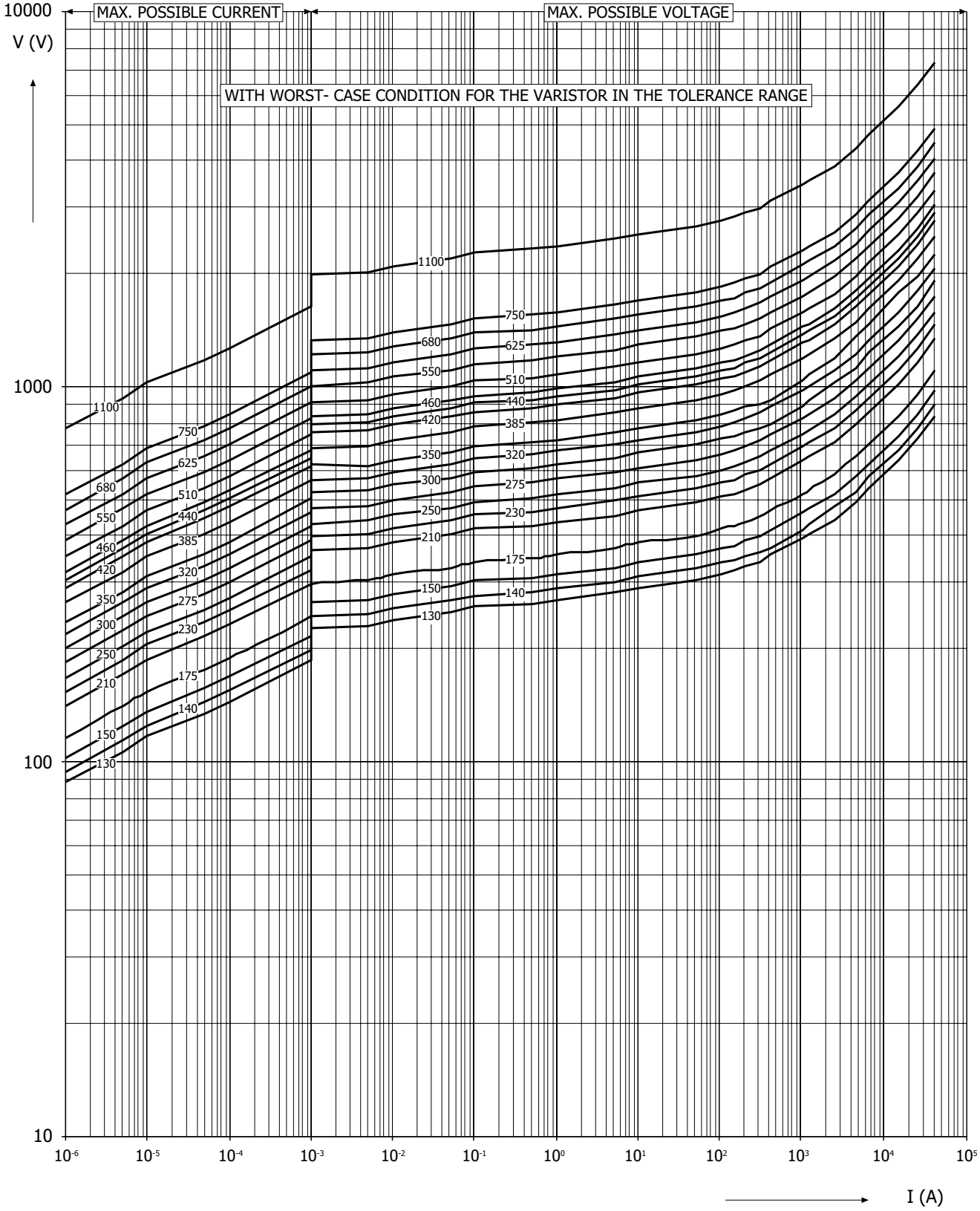
V-I Characteristics

V130-V750E32
V130-V1100D32LE
V130-1100D32



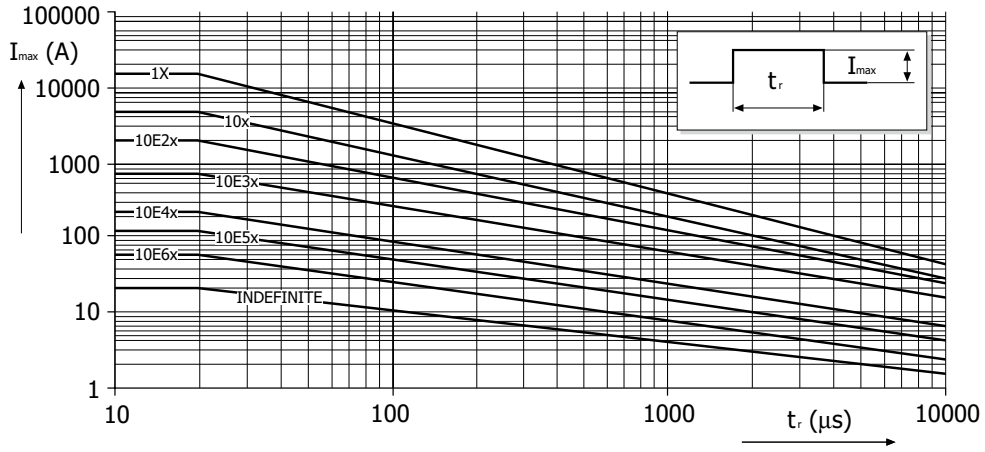
V-I Characteristics

V130-V750E40
V130-V1100S40LE
V130-1100D40
V130-1100S40

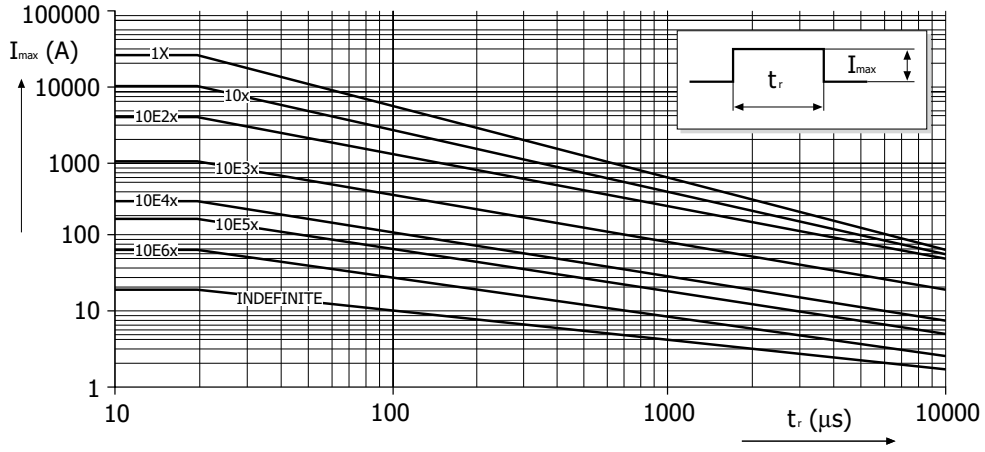


Pulse Ratings

V130E25-V750E25
V130D25-V750D25

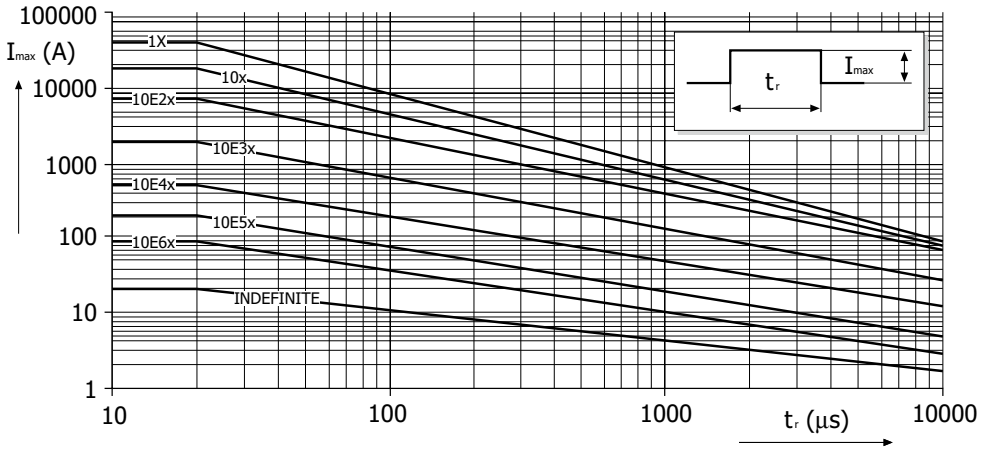


V130E32-V750E32
V130D32LE-V1100D32LE
V130D32-V1100D32



Pulse Ratings

V130E40-V750E40
V130S40LE-V1100S40LE
V130S/D40-V1100S/D40



V275D60-V1100D60