

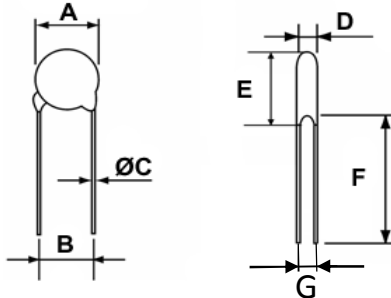
Specification for Release

Customer :
 Ordercode: **820443211E**
 Description : **Disk Varistor HighSurge WE-VD**



DATE : 2010-04-19

A Dimensions:



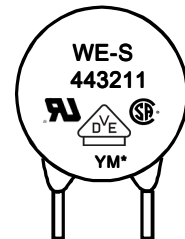
	Diameter 14mm	
A	16.5 max.	mm
B	7.5 ± 1.0	mm
C	0.8 ± 0.05	mm
D	4.8 typ.	mm
D	7.2 max.	mm
E	20.5 max.	mm
F	25.0 min.	mm
G	3.1 ± 1.0	mm

B Electrical properties:

Properties	Test Conditions		Value	Unit	Tol.
max. AC Operating Voltage		V_{RMS}	320	V	max
max. DC Operating Voltage		V_{DC}	418	V	max
Withstanding Surge Current	8/20µs	i_{max}	6000	A	max
max. Energy	10/1000µs	W_{max}	190.0	J	max
Rated Power	Continuous	P_{max}	0.6	W	max
Varistor Voltage	1mA	V_{Var}	510	V	±10%
max. Clamping Voltage	50A @ 8/20µs	V_{Cl}	842	V	max
Capacitance	1 kHz	C_P	370	pF	typ
Voltage Protection Rating	6000 / 3000	V / A	1200	V	max

C Body marking:

WESURGE from Würth Elektronik
 Part Branding (digit 4-9 of ordercode)
 Approvals (see F)
 Date Code & Internal Symbol



D Test equipment:

Keithley 2410 for Varistor Voltage
 EMC Partner MIG0603CLV2 for Clamping Voltage
 EMC Partner MIG0624LP1 for max. Surge Current and Energy
 Agilent E4980A LCR Meter for Capacitance

E Test conditions:

Humidity: 33%
 Temperature: +25°C

F Material & approvals:

Body Insulation: 2500Vrms Withstanding Voltage
 Coating: Epoxy, UL 94V-0, halogen free
 Approvals: UL1449 3rd (E332875) for use in Type 2 SPD
 VDE (40016998) & IEC 60950-1 Annex Q
 CSA (224856)

G General specifications:

Storage Temperature: -20°C ... + 60°C
 Max. Operating Temperature: -40°C ... +125°C
 Max. Ambient Temperature: -40°C ... +115°C
 Max. Response Time: 25ns

General Release:

Customer

Date

Signature

Würth Elektronik

Checked

Approved

JB	Version 1	2010-04-19
Name	Modification	Date

Würth Elektronik eiSos GmbH & Co. KG

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<http://www.we-online.com>

PAGE 1 OF 5

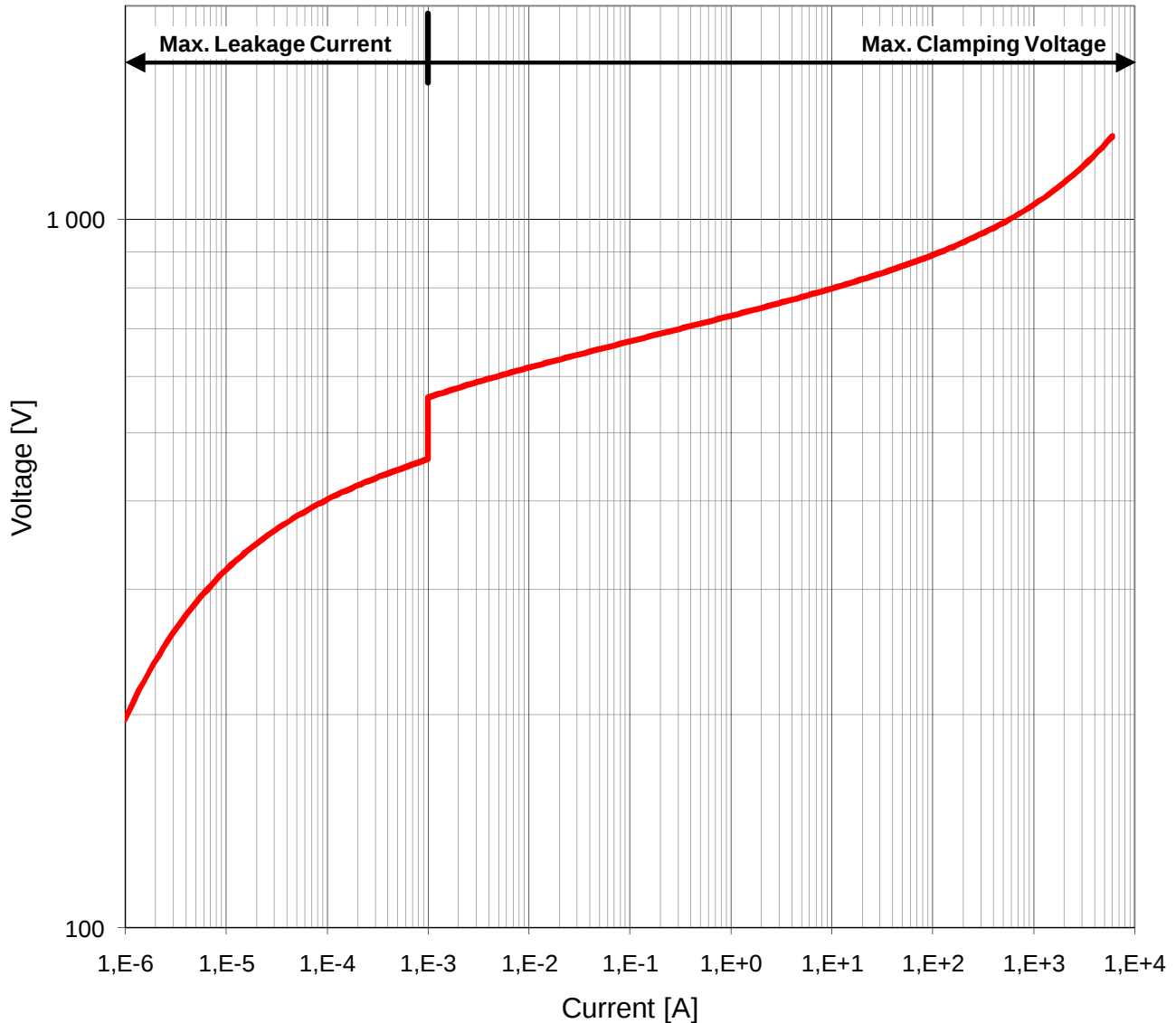
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H Typical I/V Characteristic:



General Release:		Customer				
Date		Signature				
		Würth Elektronik				
Checked		Approved		JB	Version 1	2010-04-19
				Name	Modification	Date

This electronic component has been designed and developed for usage in general electronic equipment. Before incorporating this component into any equipment where higher safety and reliability is especially required or if there is the possibility of direct damage or injury to human body, for example in the range of aerospace, aviation, nuclear control, submarine, transportation, (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc, Würth Elektronik eiSos GmbH must be informed before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical circuits that require high safety and reliability functions or performance.

Würth Elektronik eiSos GmbH & Co. KG

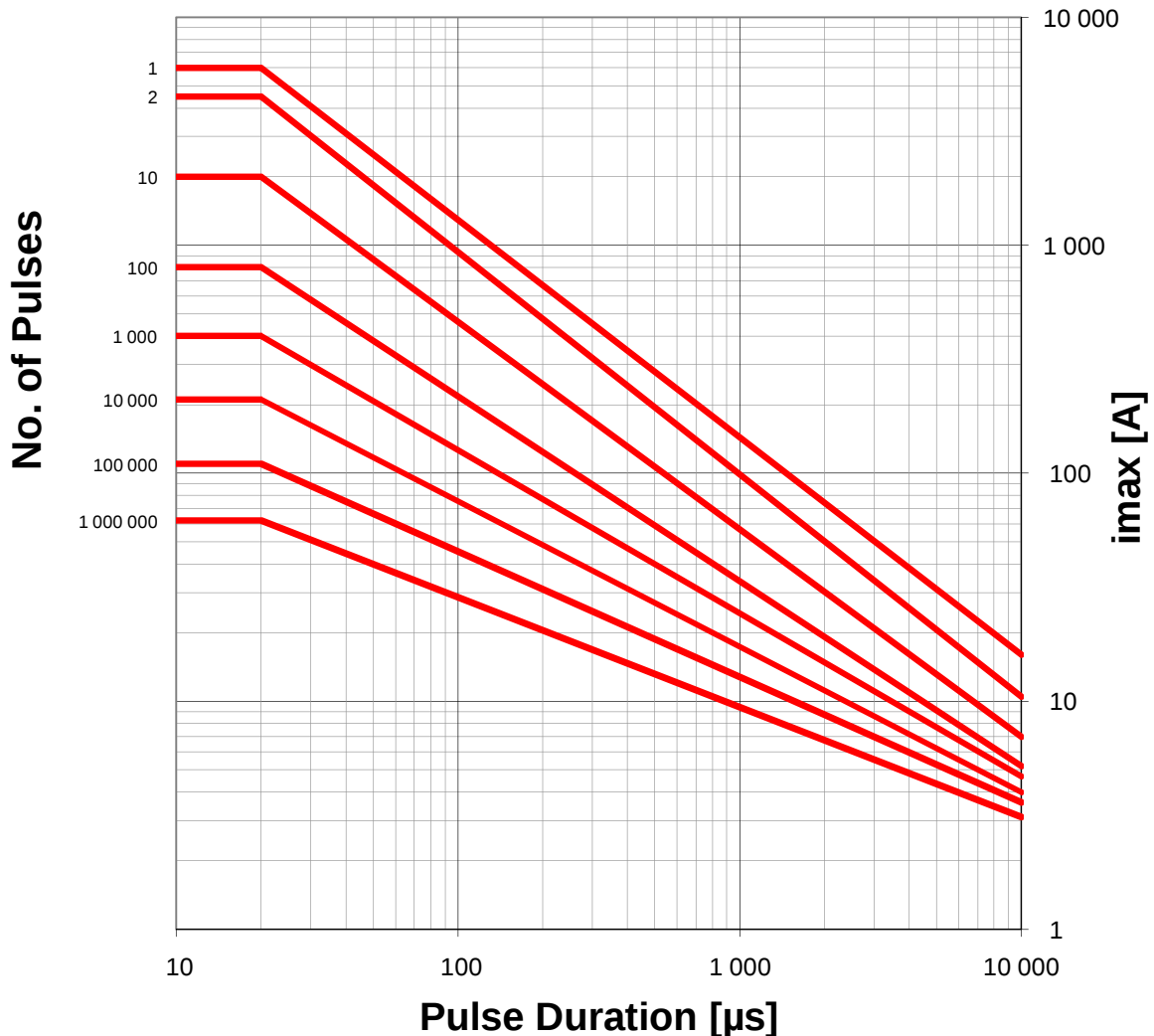
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I Typical Pulse Lifetime Derating:



Note:

Varistors do not have an endless lifetime. Also a well dimensioned varistor may fail due to enormous overload. This will result in heating, smoke emission and / or dislosion of varistor itself. Therefore we recommend to place varistors separate within a box on PCB. Furthermore a fuse should be in the varistor's current path to avoid secondary current in case the varistor fails. This fuse can protect against secondaty currents and therewith caused damages.

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Date	Signature				
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