

Multilayer Chip Varistor – SDV Series

Operating Temp. : -55°C~+125°C



FEATURES

- SMD type suitable for high density mounting
- Excellent clamping ratio and quick response time (<0.5ns)
- Excellent solderability (Ni, Sn plating)

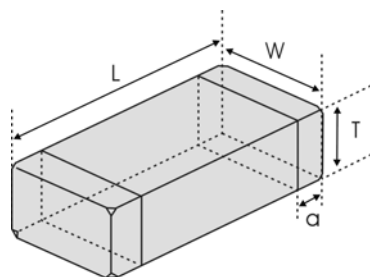
APPLICATIONS

- Transient voltage protection for IC and transistor
- ESD and I/O protection
- EFT and burst protection
- Portable equipment protection, such as mobile phone, PDA, etc.

PRODUCT IDENTIFICATION

<u>SDV</u> ①	<u>1608</u> ②	<u>A</u> ③	<u>180</u> ④	<u>C121</u> ⑤	<u>N</u> ⑥	<u>P</u> ⑦	<u>T</u> ⑧	<u>F</u> ⑨																																																												
<table border="1"> <thead> <tr> <th colspan="2">Type</th> </tr> </thead> <tbody> <tr> <td>SDV</td> <td>Chip Varistor</td> </tr> </tbody> </table>	Type		SDV	Chip Varistor	<table border="1"> <thead> <tr> <th colspan="2">External Dimensions (L×W) (mm)</th> </tr> </thead> <tbody> <tr> <td>0603 [0201]</td> <td>0.6×0.3</td> </tr> <tr> <td>1005 [0402]</td> <td>1.0×0.5</td> </tr> <tr> <td>1608 [0603]</td> <td>1.6×0.8</td> </tr> <tr> <td>2012 [0805]</td> <td>2.0×1.25</td> </tr> </tbody> </table>	External Dimensions (L×W) (mm)		0603 [0201]	0.6×0.3	1005 [0402]	1.0×0.5	1608 [0603]	1.6×0.8	2012 [0805]	2.0×1.25	<table border="1"> <thead> <tr> <th colspan="2">Feature Code</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>For General Use</td> </tr> <tr> <td>E</td> <td>For ESD</td> </tr> <tr> <td>H</td> <td>For High Speed</td> </tr> <tr> <td>S</td> <td>For Special Request</td> </tr> </tbody> </table>	Feature Code		A	For General Use	E	For ESD	H	For High Speed	S	For Special Request	<table border="1"> <thead> <tr> <th colspan="2">Continuous Working Voltage</th> </tr> </thead> <tbody> <tr> <th>Example</th> <th>Nominal Value</th> </tr> <tr> <td>5R5</td> <td>5.5V</td> </tr> <tr> <td>180</td> <td>18V</td> </tr> </tbody> </table>	Continuous Working Voltage		Example	Nominal Value	5R5	5.5V	180	18V	<table border="1"> <thead> <tr> <th colspan="2">Capacitance @1MHz</th> </tr> </thead> <tbody> <tr> <th>Example</th> <th>Nominal Value</th> </tr> <tr> <td>C121</td> <td>120pF</td> </tr> <tr> <td>C152</td> <td>1500pF</td> </tr> </tbody> </table>	Capacitance @1MHz		Example	Nominal Value	C121	120pF	C152	1500pF	<table border="1"> <thead> <tr> <th colspan="2">Tolerance of Capacitance</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>±30%</td> </tr> <tr> <td>Y</td> <td>+100%~-50%</td> </tr> <tr> <td>G</td> <td>Maximum</td> </tr> </tbody> </table>	Tolerance of Capacitance		N	±30%	Y	+100%~-50%	G	Maximum	<table border="1"> <thead> <tr> <th colspan="2">Terminal Code</th> </tr> </thead> <tbody> <tr> <td>P</td> <td>Ni, Sn Plating</td> </tr> </tbody> </table>	Terminal Code		P	Ni, Sn Plating	<table border="1"> <thead> <tr> <th colspan="2">Packing</th> </tr> </thead> <tbody> <tr> <td>T</td> <td>Tape & Reel</td> </tr> </tbody> </table>	Packing		T	Tape & Reel	<table border="1"> <thead> <tr> <th colspan="2">Hazardous Substance Free Products</th> </tr> </thead> <tbody> <tr> <td colspan="2">F</td> </tr> </tbody> </table>	Hazardous Substance Free Products		F	
Type																																																																				
SDV	Chip Varistor																																																																			
External Dimensions (L×W) (mm)																																																																				
0603 [0201]	0.6×0.3																																																																			
1005 [0402]	1.0×0.5																																																																			
1608 [0603]	1.6×0.8																																																																			
2012 [0805]	2.0×1.25																																																																			
Feature Code																																																																				
A	For General Use																																																																			
E	For ESD																																																																			
H	For High Speed																																																																			
S	For Special Request																																																																			
Continuous Working Voltage																																																																				
Example	Nominal Value																																																																			
5R5	5.5V																																																																			
180	18V																																																																			
Capacitance @1MHz																																																																				
Example	Nominal Value																																																																			
C121	120pF																																																																			
C152	1500pF																																																																			
Tolerance of Capacitance																																																																				
N	±30%																																																																			
Y	+100%~-50%																																																																			
G	Maximum																																																																			
Terminal Code																																																																				
P	Ni, Sn Plating																																																																			
Packing																																																																				
T	Tape & Reel																																																																			
Hazardous Substance Free Products																																																																				
F																																																																				

SHAPE AND DIMENSIONS



Unit: mm [inch]

Type	L	W	T	a
SDV0603 [0201]	0.6±0.05 [.024±.002]	0.3±0.05 [.012±.002]	0.3±0.05 [.012±.002]	0.15±0.05 [.006±.002]
SDV1005 [0402]	1.0±0.15 [.039±.006]	0.5±0.15 [.020±.006]	0.5±0.15 [.020±.006]	0.25±0.1 [.010±.004]
SDV1608 [0603]	1.6±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]
SDV2012 [0805]	2.0±0.2 [.079±.008]	1.25±0.2 [.049±.008]	0.85±0.2 [.033±.008]	0.5±0.3 [.020±.012]

SPECIFICATIONS

SDV1005A TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	DC	AC RMS		8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	
Test Condition	<20 μ A		@1mA DC	8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	@0.5V _{rms} , 1MHz
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV1005A5R5C181□PTF	5.5	4.0	10.0-14.0	18	23	0.05	20	180
SDV1005A5R5C231□PTF	5.5	4.0	10.0-14.0	18	23	0.05	20	230
SDV1005A5R5C361□PTF	5.5	4.0	10.0-14.0	18	23	0.05	20	360
SDV1005A090C121□PTF	9.0	6.4	11.0-16.0	20	26	0.05	20	120
SDV1005A090C151□PTF	9.0	6.4	11.0-16.0	20	26	0.05	20	150
SDV1005A090C231□PTF	9.0	6.4	11.0-16.0	20	26	0.05	20	230
SDV1005A140C121□PTF	14.0	10.0	16.0-22.0	30	39	0.05	20	120

SDV1608A TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	DC	AC RMS		8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	
Test Condition	<20 μ A		@1mA DC	8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	@0.5V _{rms} , 1MHz
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV1608A5R5C121□PTF	5.5	4.0	10.0-14.0	18	23	0.05	20	120
SDV1608A5R5C141□PTF	5.5	4.0	10.0-14.0	18	23	0.05	20	140
SDV1608A5R5C231□PTF	5.5	4.0	10.0-14.0	18	23	0.1	30	230
SDV1608A5R5C361□PTF	5.5	4.0	10.0-14.0	18	23	0.1	30	360
SDV1608A5R5C551□PTF	5.5	4.0	10.0-14.0	18	23	0.1	30	550
SDV1608A5R5C821□PTF	5.5	4.0	10.0-14.0	18	23	0.1	30	820
SDV1608A090C121□PTF	9.0	6.4	11.0-16.0	20	26	0.05	20	120
SDV1608A090C141□PTF	9.0	6.4	11.0-16.0	20	26	0.05	20	140
SDV1608A090C201□PTF	9.0	6.4	11.0-16.0	20	26	0.1	30	200
SDV1608A090C231□PTF	9.0	6.4	11.0-16.0	20	26	0.1	30	230
SDV1608A090C361□PTF	9.0	6.4	11.0-16.0	20	26	0.1	30	360
SDV1608A090C551□PTF	9.0	6.4	11.0-16.0	20	26	0.1	30	550
SDV1608A090C821□PTF	9.0	6.4	11.0-16.0	20	26	0.1	30	820
SDV1608A140C121□PTF	14.0	10.0	16.0-22.0	30	39	0.05	20	120
SDV1608A140C141□PTF	14.0	10.0	16.0-22.0	30	39	0.05	20	140
SDV1608A140C251□PTF	14.0	10.0	16.0-22.0	30	39	0.1	30	250
SDV1608A140C361□PTF	14.0	10.0	16.0-22.0	30	39	0.1	30	360
SDV1608A140C551□PTF	14.0	10.0	16.0-22.0	30	39	0.1	30	550
SDV1608A180C121□PTF	18.0	12.7	22.0-28.0	40	48	0.05	20	120
SDV1608A180C141□PTF	18.0	12.7	22.0-28.0	40	48	0.05	20	140
SDV1608A180C231□PTF	18.0	12.7	22.0-28.0	40	48	0.1	30	230
SDV1608A180C361□PTF	18.0	12.7	22.0-28.0	40	48	0.1	30	360
SDV1608A220C121□PTF	22.0	15.6	26.0-34.0	45	54	0.05	20	120
SDV1608A220C141□PTF	22.0	15.6	26.0-34.0	45	54	0.05	20	140
SDV1608A220C161□PTF	22.0	15.6	26.0-34.0	45	54	0.1	30	160
SDV1608A220C231□PTF	22.0	15.6	26.0-34.0	45	54	0.1	30	230
SDV1608A220C361□PTF	22.0	15.6	26.0-34.0	45	54	0.1	30	360
SDV1608A260C121□PTF	26.0	18.4	31.0-38.0	58	70	0.1	30	120
SDV1608A260C161□PTF	26.0	18.4	31.0-38.0	58	70	0.1	30	160
SDV1608A300C121□PTF	30.0	21.3	37.0-46.0	65	78	0.1	30	120
SDV1608A300C141□PTF	30.0	21.3	37.0-46.0	65	78	0.1	30	140



Specifications subject to change without notice. Please check our website for latest information. Revised 2015/04/10

SPECIFICATIONS

SDV2012A TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	DC	AC RMS		8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	
Test Condition	<20 μ A		@1mA DC	8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	@0.5V _{rms} , 1MHz
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV2012A5R5C901□PTF	5.5	4.0	10.0-14.0	18	30	0.2	60	900
SDV2012A5R5C122□PTF	5.5	4.0	10.0-14.0	18	30	0.3	120	1200
SDV2012A5R5C202□PTF	5.5	4.0	10.0-14.0	18	30	0.4	150	2000
SDV2012A090C701□PTF	9.0	6.4	11.0-16.0	20	30	0.2	60	700
SDV2012A090C102□PTF	9.0	6.4	11.0-16.0	20	30	0.3	120	1000
SDV2012A090C162□PTF	9.0	6.4	11.0-16.0	20	30	0.4	150	1600
SDV2012A140C401□PTF	14.0	10.0	16.0-22.0	30	40	0.2	60	400
SDV2012A140C701□PTF	14.0	10.0	16.0-22.0	30	40	0.3	120	700
SDV2012A140C901□PTF	14.0	10.0	16.0-22.0	30	40	0.4	150	900
SDV2012A180C301□PTF	18.0	12.7	22.0-28.0	40	40	0.2	60	300
SDV2012A180C501□PTF	18.0	12.7	22.0-28.0	40	40	0.3	120	500
SDV2012A180C701□PTF	18.0	12.7	22.0-28.0	40	40	0.4	150	700
SDV2012A220C251□PTF	22.0	15.6	26.0-34.0	45	40	0.2	60	250
SDV2012A220C401□PTF	22.0	15.6	26.0-34.0	45	40	0.3	120	400
SDV2012A220C501□PTF	22.0	15.6	26.0-34.0	45	40	0.3	120	500
SDV2012A260C251□PTF	26.0	18.4	31.0-38.0	58	40	0.2	60	250
SDV2012A260C401□PTF	26.0	18.4	31.0-38.0	58	40	0.3	120	400
SDV2012A300C181□PTF	30.0	21.3	37.0-46.0	65	40	0.2	60	180
SDV2012A300C301□PTF	30.0	21.3	37.0-46.0	65	40	0.3	120	300

SDV0603E TYPE

Part Number 型号	Max. Working Voltage 最大工作电压		Varistor Voltage 压敏电压	Max. Clamping Voltage 限制电压		Rated Single Pulse Transient 额定脉冲耐量		Typical Capacitance 电容
	DC	AC RMS		8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	
Test Condition 测试条件	<20 μ A		@1mA DC	8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	@0.5V _{rms} , 1MHz
Units 单位	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol 符号	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV0603E5R5C220□PTF	5.5	4.0	10.0-16.0	35	30	0.005	1	22
SDV0603E5R5C300□PTF	5.5	4.0	10.0-16.0	35	30	0.01	3	30
SDV0603E5R5C400□PTF	5.5	4.0	10.0-16.0	35	30	0.01	5	40
SDV0603E5R5C500□PTF	5.5	4.0	10.0-16.0	35	30	0.01	5	50
SDV0603E140C150□PTF	14.0	10.0	16.0-22.0	45	40	0.005	1	15

SPECIFICATIONS

SDV1005E TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
Test Condition	<20μA		@1mA DC	8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	@0.5V _{rms} , 1MHz
	DC	AC RMS						
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV1005E5R5C180□PTF	5.5	4.0	10.0-14.0	18	23	0.005	3	18
SDV1005E5R5C300□PTF	5.5	4.0	10.0-14.0	18	23	0.005	5	30
SDV1005E5R5C400□PTF	5.5	4.0	10.0-14.0	18	23	0.005	5	40
SDV1005E5R5C500□PTF	5.5	4.0	10.0-14.0	18	23	0.01	10	50
SDV1005E5R5C700□PTF	5.5	4.0	10.0-14.0	18	23	0.01	10	70
SDV1005E5R5C800□PTF	5.5	4.0	10.0-14.0	18	23	0.02	10	80
SDV1005E5R5C101□PTF	5.5	4.0	10.0-14.0	18	23	0.05	20	100
SDV1005E090C180□PTF	9.0	6.4	11.0-16.0	20	26	0.005	3	18
SDV1005E090C300□PTF	9.0	6.4	11.0-16.0	20	26	0.005	5	30
SDV1005E090C500□PTF	9.0	6.4	11.0-16.0	20	26	0.01	10	50
SDV1005E090C800□PTF	9.0	6.4	11.0-16.0	20	26	0.02	15	80
SDV1005E090C101□PTF	9.0	6.4	11.0-16.0	20	26	0.05	20	100
SDV1005E140C180□PTF	14.0	10.0	16.0-22.0	30	39	0.005	3	18
SDV1005E140C300□PTF	14.0	10.0	16.0-22.0	30	39	0.01	5	30
SDV1005E140C500□PTF	14.0	10.0	16.0-22.0	30	39	0.02	10	50
SDV1005E140C800□PTF	14.0	10.0	16.0-22.0	30	39	0.03	15	80
SDV1005E140C101□PTF	14.0	10.0	16.0-22.0	30	39	0.05	20	100
SDV1005E180C150□PTF	18.0	12.7	22.0-28.0	40	48	0.005	2	15
SDV1005E180C180□PTF	18.0	12.7	22.0-28.0	40	48	0.01	5	18
SDV1005E180C300□PTF	18.0	12.7	22.0-28.0	40	48	0.02	10	30
SDV1005E180C500□PTF	18.0	12.7	22.0-28.0	40	48	0.02	10	50
SDV1005E180C800□PTF	18.0	12.7	22.0-28.0	40	48	0.03	15	80
SDV1005E220C150□PTF	22.0	15.6	26.0-34.0	45	54	0.005	2	15
SDV1005E220C180□PTF	22.0	15.6	26.0-34.0	45	54	0.01	5	18
SDV1005E220C300□PTF	22.0	15.6	26.0-34.0	45	54	0.02	10	30
SDV1005E220C500□PTF	22.0	15.6	26.0-34.0	45	54	0.02	10	50
SDV1005E260C180□PTF	26.0	18.4	31.0-38.0	58	70	0.02	5	18
SDV1005E260C300□PTF	26.0	18.4	31.0-38.0	58	70	0.03	10	30
SDV1005E260C500□PTF	26.0	18.4	31.0-38.0	58	70	0.03	10	50

SDV1608E TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
Test Condition	<20μA		@1mA DC	8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	@0.5V _{rms} , 1MHz
	DC	AC RMS						
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV1608E5R5C180□PTF	5.5	4.0	10.0-14.0	18	23	0.005	3	18
SDV1608E5R5C300□PTF	5.5	4.0	10.0-14.0	18	23	0.005	5	30
SDV1608E5R5C500□PTF	5.5	4.0	10.0-14.0	18	23	0.01	10	50
SDV1608E5R5C800□PTF	5.5	4.0	10.0-14.0	18	23	0.02	10	80
SDV1608E5R5C101□PTF	5.5	4.0	10.0-14.0	18	23	0.05	20	100
SDV1608E090C180□PTF	9.0	6.4	11.0-16.0	20	26	0.005	3	18
SDV1608E090C300□PTF	9.0	6.4	11.0-16.0	20	26	0.005	5	30
SDV1608E090C500□PTF	9.0	6.4	11.0-16.0	20	26	0.01	10	50



Specifications subject to change without notice. Please check our website for latest information. Revised 2015/04/10

Sunlord Industrial Park, Dafuyuan Industrial Zone, Guanlan, Shenzhen, China 518110 Tel: 0086-755-29832660 Fax: 0086-755-82269029 E-Mail: sunlord@sunlordinc.com

SPECIFICATIONS

SDV1608E TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	DC	AC RMS		8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	
Test Condition	<20 μ A		@1mA DC					@0.5V _{rms} , 1MHz
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV1608E090C800□PTF	9.0	6.4	11.0-16.0	20	26	0.02	15	80
SDV1608E090C101□PTF	9.0	6.4	11.0-16.0	20	26	0.05	20	100
SDV1608E140C180□PTF	14.0	10.0	16.0-22.0	30	39	0.005	3	18
SDV1608E140C300□PTF	14.0	10.0	16.0-22.0	30	39	0.01	5	30
SDV1608E140C500□PTF	14.0	10.0	16.0-22.0	30	39	0.02	10	50
SDV1608E140C800□PTF	14.0	10.0	16.0-22.0	30	39	0.03	15	80
SDV1608E140C101□PTF	14.0	10.0	16.0-22.0	30	39	0.05	20	100
SDV1608E180C180□PTF	18.0	12.7	22.0-28.0	40	48	0.005	5	18
SDV1608E180C300□PTF	18.0	12.7	22.0-28.0	40	48	0.02	10	30
SDV1608E180C600□PTF	18.0	12.7	22.0-28.0	40	48	0.02	10	60
SDV1608E180C800□PTF	18.0	12.7	22.0-28.0	40	48	0.03	15	80
SDV1608E180C101□PTF	18.0	12.7	22.0-28.0	40	48	0.05	20	100
SDV1608E220C180□PTF	22.0	15.6	26.0-34.0	45	54	0.005	5	18
SDV1608E220C300□PTF	22.0	15.6	26.0-34.0	45	54	0.02	10	30
SDV1608E220C500□PTF	22.0	15.6	26.0-34.0	45	54	0.02	10	50
SDV1608E220C800□PTF	22.0	15.6	26.0-34.0	45	54	0.03	15	80
SDV1608E220C101□PTF	22.0	15.6	26.0-34.0	45	54	0.05	20	100
SDV1608E260C180□PTF	26.0	18.4	31.0-38.0	58	70	0.02	5	18
SDV1608E260C300□PTF	26.0	18.4	31.0-38.0	58	70	0.03	10	30
SDV1608E260C500□PTF	26.0	18.4	31.0-38.0	58	70	0.03	10	50

SDV2012E TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	DC	AC RMS		8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	
Test Condition	<20 μ A		@1mA DC					@0.5V _{rms} , 1MHz
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV2012E5R5C180□PTF	5.5	4.0	10.0-14.0	18	23	0.005	3	18
SDV2012E180C101□PTF	18.0	12.7	22.0-28.0	40	48	0.05	20	100
SDV2012E220C101□PTF	22.0	15.6	26.0-34.0	45	54	0.05	20	100
SDV2012E260C800□PTF	26.0	18.4	31.0-38.0	58	70	0.05	20	80
SDV2012E300C500□PTF	30.0	21.3	37.0-46.0	65	78	0.05	15	50

SDV0603H TYPE

Part Number 型号	Max. Working Voltage 最大工作电压		Varistor Voltage 压敏电压	Max. Clamping Voltage 限制电压		Rated Single Pulse Transient 额定脉冲耐量		Typical Capacitance 电容
	DC	AC RMS		8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	
Test Condition 测试条件	<20 μ A		@1mA DC					@0.5V _{rms} , 1MHz
Units 单位	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol 符号	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV0603H180C100□PTF	18.0	12.7	22.0-28.0	55	50	0.005	1	10
SDV0603H260C050YPTF	26.0	18.4	31.0-38.0	70	70	0.003	1	5



Specifications subject to change without notice. Please check our website for latest information. Revised 2015/04/10

Sunlord Industrial Park, Dafuyuan Industrial Zone, Guanlan, Shenzhen, China 518110 Tel: 0086-755-29832660 Fax: 0086-755-82269029 E-Mail: sunlord@sunlordinc.com

SPECIFICATIONS

SDV1005H TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
Test Condition	<20μA		@1mA DC	8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	@0.5V _{rms} , 1MHz
	DC	AC RMS						
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV1005H140C100□PTF	14.0	10.0	16.0-22.0	30	39	0.005	2	10
SDV1005H140C120□PTF	14.0	10.0	16.0-22.0	30	39	0.005	2	12
SDV1005H180C050YPTF	18.0	12.7	22.0-28.0	40	48	0.005	2	5
SDV1005H180C100□PTF	18.0	12.7	22.0-28.0	40	48	0.005	2	10
SDV1005H220C030YPTF	22.0	15.6	26.0-34.0	45	54	0.003	1	3
SDV1005H220C050YPTF	22.0	15.6	26.0-34.0	45	54	0.005	2	5
SDV1005H220C100□PTF	22.0	15.6	26.0-34.0	45	54	0.005	2	10
SDV1005H220C120□PTF	22.0	15.6	26.0-34.0	45	54	0.005	2	12
SDV1005H260C030YPTF	26.0	18.4	31.0-38.0	58	70	0.003	1	3
SDV1005H260C100□PTF	26.0	18.4	31.0-38.0	58	70	0.005	2	10
SDV1005H260C120□PTF	26.0	18.4	31.0-38.0	58	70	0.005	2	12

SDV1608H TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
Test Condition	<20μA		@1mA DC	8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	@0.5V _{rms} , 1MHz
	DC	AC RMS						
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV1608H140C100□PTF	14.0	10.0	16.0-22.0	30	39	0.005	2	10
SDV1608H140C120□PTF	14.0	10.0	16.0-22.0	30	39	0.005	2	12
SDV1608H180C050YPTF	18.0	12.7	22.0-28.0	40	48	0.003	1	5
SDV1608H180C100□PTF	18.0	12.7	22.0-28.0	40	48	0.005	2	10
SDV1608H180C120□PTF	18.0	12.7	22.0-28.0	40	48	0.005	2	12
SDV1608H220C030YPTF	22.0	15.6	26.0-34.0	45	54	0.003	1	3
SDV1608H220C050YPTF	22.0	15.6	26.0-34.0	45	54	0.003	1	5
SDV1608H220C100□PTF	22.0	15.6	26.0-34.0	45	54	0.005	2	10
SDV1608H220C120□PTF	22.0	15.6	26.0-34.0	45	54	0.005	2	12
SDV1608H260C030YPTF	26.0	18.4	31.0-38.0	58	70	0.003	1	3
SDV1608H260C100□PTF	26.0	18.4	31.0-38.0	58	70	0.005	2	10
SDV1608H260C120□PTF	26.0	18.4	31.0-38.0	58	70	0.005	2	12
SDV1608H300C100□PTF	30.0	21.3	37.0-46.0	65	78	0.005	2	10
SDV1608H480C100□PTF	48.0	34.1	54.0-67.0	100	120	0.005	5	10

SDV0603S TYPE

Part Number 型号	Max. Working Voltage 最大工作电压		Varistor Voltage 压敏电压	Max. Clamping Voltage 限制电压		Rated Single Pulse Transient 额定脉冲耐量		Typical Capacitance 电容
Test Condition 测试条件	<20μA		@1mA DC	8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	@0.5V _{rms} , 1MHz
	DC	AC RMS						
Units 单位	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol 符号	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV0603S5R5C050YPTF	5.5	4.0	31.0-38.0	70	70	0.003	1	5
SDV0603S5R5C100□PTF	5.5	4.0	22.0-28.0	45	48	0.005	1	10
SDV0603S090C050YPTF	9.0	6.4	31.0-38.0	70	70	0.003	1	5

Specifications subject to change without notice. Please check our website for latest information. Revised 2015/04/10

Sunlord Industrial Park, Dafuyuan Industrial Zone, Guanlan, Shenzhen, China 518110 Tel: 0086-755-29832660 Fax: 0086-755-82269029 E-Mail: sunlord@sunlordinc.com

SPECIFICATIONS

SDV1005S TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	DC	AC RMS		8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	
Test Condition	<20 μ A		@1mA DC	8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	@0.5V _{rms} , 1MHz
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV1005S5R5C030YPTF	5.5	4.0	31.0-38.0	58	70	0.003	1	3
SDV1005S5R5C050YPTF	5.5	4.0	22.0-28.0	40	48	0.003	1	5
SDV1005S5R5C100□PTF	5.5	4.0	22.0-28.0	40	48	0.005	2	10
SDV1005S5R5C120□PTF	5.5	4.0	22.0-28.0	40	48	0.005	2	12
SDV1005S090C030YPTF	9.0	6.4	31.0-38.0	58	70	0.003	1	3
SDV1005S090C050YPTF	9.0	6.4	22.0-28.0	40	48	0.003	1	5
SDV1005S090C100□PTF	9.0	6.4	22.0-28.0	40	48	0.005	2	10
SDV1005S090C120□PTF	9.0	6.4	22.0-28.0	40	48	0.005	2	12
SDV1005S140C030YPTF	14.0	10.0	31.0-38.0	58	70	0.003	1	3
SDV1005S140C050YPTF	14.0	10.0	22.0-28.0	40	48	0.003	1	5
SDV1005S180C030YPTF	18.0	12.7	31.0-38.0	58	70	0.003	1	3
SDV1005S220C030YPTF	22.0	15.6	26.0-34.0	45	54	0.003	1	3

SDV1608S TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	DC	AC RMS		8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	
Test Condition	<20 μ A		@1mA DC	8/20 μ s	ESD	Energy 10/1000 μ s	Peak Current 8/20 μ s	@0.5V _{rms} , 1MHz
Units	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V _{WDC}	V _{WAC}	V _B	V _C ^{*1}	V _C ^{*2}	E _T	I _P	C
SDV1608S5R5C030YPTF	5.5	4.0	31.0-38.0	58	70	0.003	1	3
SDV1608S5R5C050YPTF	5.5	4.0	22.0-28.0	40	48	0.003	1	5
SDV1608S5R5C100□PTF	5.5	4.0	22.0-28.0	40	48	0.005	2	10
SDV1608S5R5C120□PTF	5.5	4.0	22.0-28.0	40	48	0.005	2	12
SDV1608S090C030YPTF	9.0	6.4	31.0-38.0	58	70	0.003	1	3
SDV1608S090C050YPTF	9.0	6.4	22.0-28.0	40	48	0.003	1	5
SDV1608S090C100□PTF	9.0	6.4	22.0-28.0	40	48	0.005	2	10
SDV1608S090C120□PTF	9.0	6.4	22.0-28.0	40	48	0.005	2	12
SDV1608S140C030YPTF	14.0	10.0	31.0-38.0	58	70	0.003	1	3
SDV1608S140C050YPTF	14.0	10.0	22.0-28.0	40	48	0.003	1	5
SDV1608S180C030YPTF	18.0	12.7	31.0-38.0	58	70	0.003	1	3
SDV1608S220C030YPTF	22.0	15.6	26.0-34.0	45	54	0.003	1	3

※*1: V_c, Maximum peak voltage across the varistor measured at a specified pulse current and waveform.

Energy Rating	Pulse & Waveform
0.00-0.05 Joule	1A, 8/20 μ s
0.10 Joule	2A, 8/20 μ s
0.20-0.50 Joule	5A, 8/20 μ s

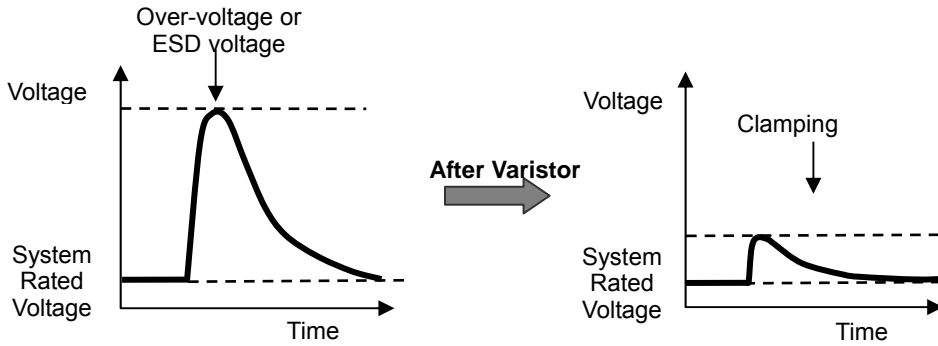
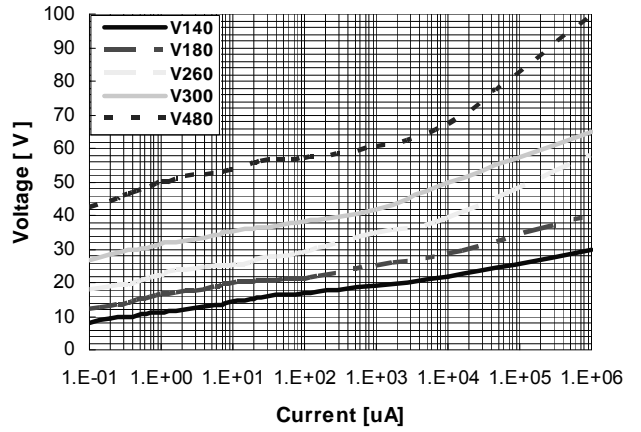
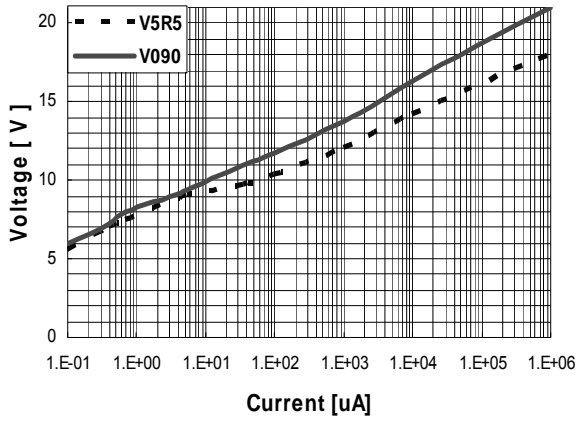
※*2: V_c, Maximum peak voltage across the varistor measured at 30ns after initiation of pulse on IEC61000-4-2 30A/8kV.

※□: Please specify the capacitance tolerance code (N=±30%, Y=+100%~-50%, G=Maximum).

And products with other electrical characteristics can be provided upon customer's request. Please contact your local sales.

TYPICAL ELECTRICAL CHARACTERISTICS

SDV-A/E/H series



SPECIFICATIONS

Ultra low capacitance type (C=0.5pF, 1pF or 2pF)

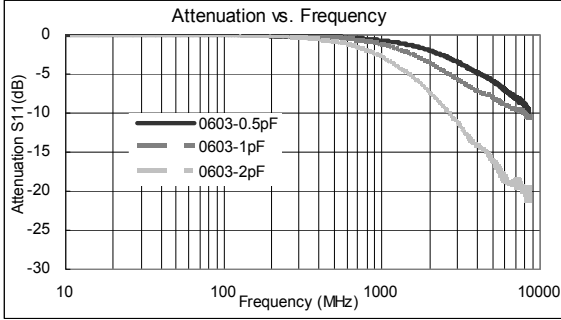
Part Number	Max. Working Voltage		Varistor Voltage	Typical Capacitance	Min. Cut-off Frequency
	<20 μ A				
Test Condition	DC	AC RMS	@1mA DC	@0.5V _{rms} , 1MHz	@-3dB
Units	Volts	Volts	Volts	pF	MHz
Symbol	V _{WDC}	V _{WAC}	V _B	C	f ₀
SDV0603S5R5C0R5YPTF	5.5	4.0	100-160	0.5	2000
SDV0603S5R5C010YPTF	5.5	4.0	100-160	1	1250
SDV0603S5R5C020YPTF	5.5	4.0	60-80	2	600
SDV0603S090C0R5YPTF	9.0	6.4	100-160	0.5	2000
SDV0603S090C010YPTF	9.0	6.4	100-160	1	1250
SDV0603S090C020YPTF	9.0	6.4	60-80	2	600
SDV1005H260C0R5YPTF	26.0	18.4	100-160	0.5	2000
SDV1005H260C010YPTF	26.0	18.4	100-160	1	1250
SDV1005H260C020YPTF	26.0	18.4	60-80	2	600
SDV1005S5R5C0R5YPTF	5.5	4.0	100-160	0.5	2000
SDV1005S5R5C010YPTF	5.5	4.0	100-160	1	1250
SDV1005S5R5C020YPTF	5.5	4.0	60-80	2	600
SDV1005S090C0R5YPTF	9.0	6.4	100-160	0.5	2000
SDV1005S090C010YPTF	9.0	6.4	100-160	1	1250
SDV1005S090C020YPTF	9.0	6.4	60-80	2	600
SDV1005S140C0R5YPTF	14.0	10.0	100-160	0.5	2000
SDV1005S140C010YPTF	14.0	10.0	100-160	1	1250
SDV1005S140C020YPTF	14.0	10.0	60-80	2	600
SDV1005S180C0R5YPTF	18.0	12.7	100-160	0.5	2000
SDV1005S180C010YPTF	18.0	12.7	100-160	1	1250
SDV1005S180C020YPTF	18.0	12.7	60-80	2	600
SDV1608H260C0R5YPTF	26.0	18.4	100-160	0.5	2000
SDV1608H260C010YPTF	26.0	18.4	100-160	1	1250
SDV1608H260C020YPTF	26.0	18.4	60-80	2	600
SDV1608S5R5C0R5YPTF	5.5	4.0	100-160	0.5	2000
SDV1608S5R5C010YPTF	5.5	4.0	100-160	1	1250
SDV1608S5R5C020YPTF	5.5	4.0	60-80	2	600
SDV1608S090C0R5YPTF	9.0	6.4	100-160	0.5	2000
SDV1608S090C010YPTF	9.0	6.4	100-160	1	1250
SDV1608S090C020YPTF	9.0	6.4	60-80	2	600
SDV1608S140C0R5YPTF	14.0	10.0	100-160	0.5	2000
SDV1608S140C010YPTF	14.0	10.0	100-160	1	1250
SDV1608S140C020YPTF	14.0	10.0	60-80	2	600
SDV1608S180C0R5YPTF	18.0	12.7	100-160	0.5	2000
SDV1608S180C010YPTF	18.0	12.7	100-160	1	1250
SDV1608S180C020YPTF	18.0	12.7	60-80	2	600

※: Products with other electrical characteristics can be provided upon customer's request. Please contact your local sales.

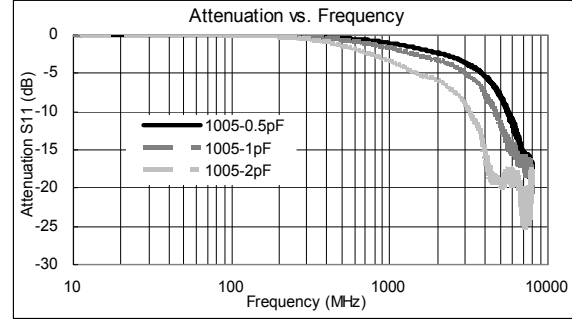
TYPICAL ELECTRICAL CHARACTERISTICS

Ultra low capacitance type: SDV0603/SDV1005/SDV1608 series, C=0.5pF, 1pF, 2pF

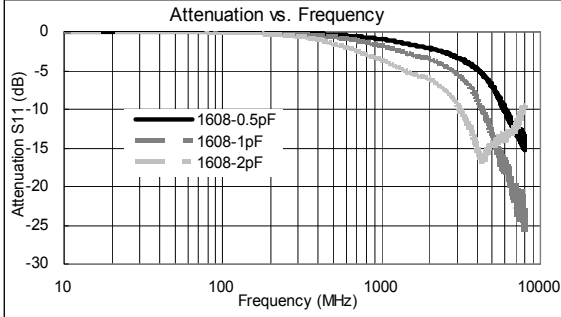
SDV0603 series



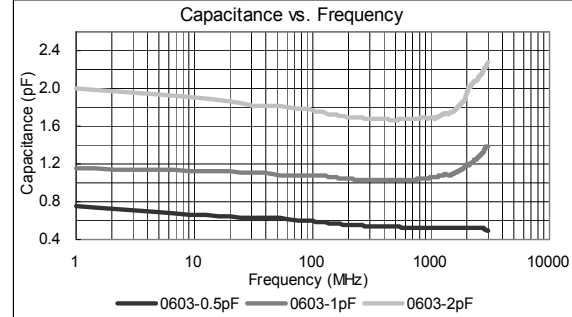
SDV1005 series



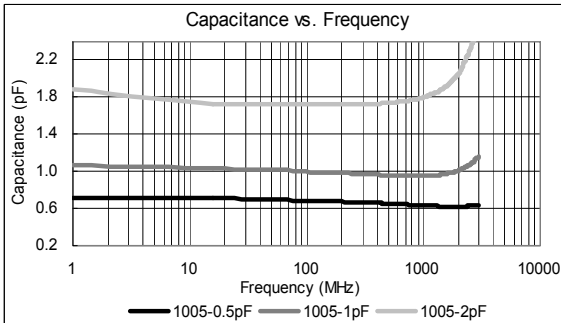
SDV1608 series



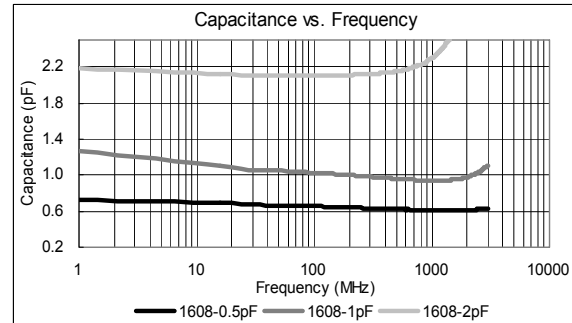
SDV0603 series



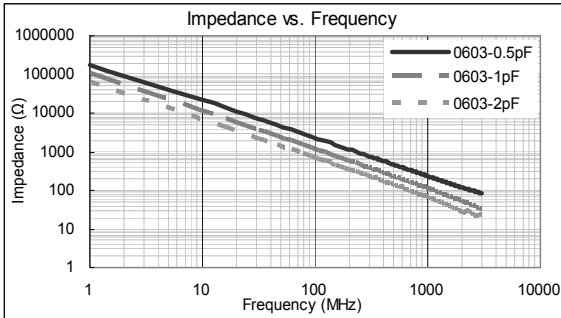
SDV1005 series



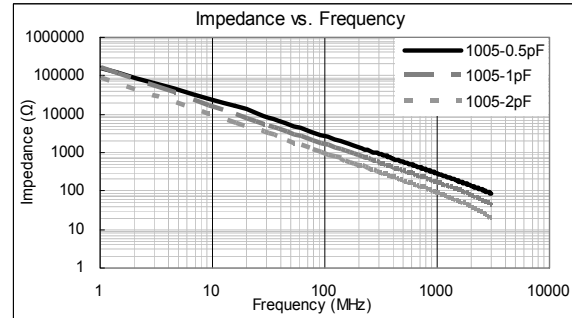
SDV1608 series



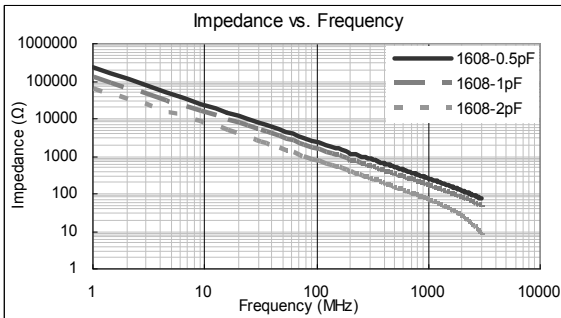
SDV0603 series



SDV1005 series



SDV1608 series



Specifications subject to change without notice. Please check our website for latest information. Revised 2015/04/10

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Varistors](#) category:

Click to view products by [Sunlord](#) manufacturer:

Other Similar products are found below :

[820443211E](#) [MLV0402E30703T](#) [MLV0603E30403T](#) [B72205S271K111](#) [B72207S350K311](#) [B72207S381K101](#) [B72260B102K1](#)
[B72260B251K1](#) [B72280B0381K001](#) [B72280B0461K001](#) [B72280B271K1](#) [B72650M0151K093](#) [B72660M0271K093](#) [S10K11G5S5](#) [ERZ-](#)
[C07DK221U](#) [TND10V-471KB00AAA0](#) [B72205S301K211](#) [B72207S141K111](#) [B72210S271K111](#) [B72214S350K551](#) [B72220P3351K101](#)
[B72280B0231K001](#) [B72280B112K1](#) [B72280B381K1](#) [B72590D360A60](#) [B72650M0400K072](#) [B72650M0500K072](#) [B72660M0200K072](#)
[B72660M1300K072](#) [B72670M1140K72](#) [MLV0603E30703T](#) [MLV0603E32503T](#) [TVZ18EC271KBS](#) [TVZ20EB911KBS](#) [TVZ25D201KBS](#)
[TVZ25D241KBS](#) [419-2080-101](#) [ERZ-V20R201](#) [MLV0805E31103T](#) [MLV0805E30703T](#) [ERZ-V20R221](#) [B72205S350K211](#)
[B72210P2511K101](#) [B72214S271K501](#) [B72220P3551K101](#) [B72240B681K1](#) [B72650M350K72](#) [TVZ20ECN511KBS](#) [TVZ20EC911KBS](#)
[TVZ20EBN911KBS](#)