



### Multilayer Chip Varistor (SDV Series)

#### • Dimension

Type	L	W	T	A
SDV1005 [0402]	1.0±0.15 [.039±.006]	0.5±0.15 [.020±.006]	0.5±0.15 [.020±.006]	0.25±0.10 [.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±0.20 [.079±.008]	1.25±0.20 [.049±.008]	0.85±0.20 [.033±.008]	0.5±0.3 [.020±.012]
SDV3216 [1206]	3.2±0.20 [.126±.008]	1.6±0.20 [.063±.008]	0.85±0.20 [.033±.008]	0.5±0.3 [.020±.012]

Unit: mm [inch]

#### • Features

- Excellent clamping ratio and quick response time (< 0.5ns)
- Excellent solderability (Ni, Sn plating)
- Operating temperature: -55°C to +125°C

#### • Applications

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

#### • Part Number Identification

**SDV**   **2012**   **A**   **180**   **C121**   **N**   **P**   **T**   **F**  
 (1)   (2)   (3)   (4)   (5)   (6)   (7)   (8)   (9)

(1)

Product ID	
SDV	Chip varistor

(2)

Dimensions (L x W, mm)	
1005 [0402]	1.0 x 0.50
1608 [0603]	1.6 x 0.80
2012 [0805]	2.0 x 1.25
3216 [1206]	3.2 x 1.6

(3)

Feature	
A	For general use
E	For ESD
H	For high speed
S	For special request

(4)

Maximum Working Voltage	
5R5	5.5V
180	18V

(5)

Capacitance at 1MHz	
C121	120pF
C152	1500pF

(6)

Tolerance of Capacitance	
N	±30%
Y	+100/-50%
G	Maximum

(7)

Terminal Type	
P	Ni, Sn plating

(8)

Packing Type	
B	Bulk packing
T	Tape & reel packing

(9)

Hazardous Substance Free Products	
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### ● SDV1005A Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance	
	< 20μA			@ 1mA DC	8/20μs	ESD	Energy 10/1000μs		Peak Current 8/20μs
Test condition	DC	AC RMS	Volts					Volts	
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF	
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C	
SDV1005A5R5C181	5.5	4.0	10.0 ~ 14.0	18	23	0.05	20	180	
SDV1005A5R5C231	5.5	4.0	10.0 ~ 14.0	18	23	0.05	20	230	
SDV1005A5R5C361	5.5	4.0	10.0 ~ 14.0	18	23	0.05	20	360	
SDV1005A090C121	9.0	6.4	11.0 ~ 16.0	20	26	0.05	20	120	
SDV1005A090C151	9.0	6.4	11.0 ~ 16.0	20	26	0.05	20	150	
SDV1005A090C231	9.0	6.4	11.0 ~ 16.0	20	26	0.05	20	230	
SDV1005A140C121	14.0	10.0	16.0 ~ 22.0	30	39	0.05	20	120	
SDV1005A140C161	14.0	10.0	16.0 ~ 22.0	30	39	0.05	20	160	

### ● SDV1608A Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance	
	< 20μA			@ 1mA DC	8/20μs	ESD	Energy 10/1000μs		Peak Current 8/20μs
Test condition	DC	AC RMS	Volts					Volts	
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF	
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C	
SDV1608A5R5C121	5.5	4.0	10.0 ~ 14.0	18	23	0.05	20	120	
SDV1608A5R5C141	5.5	4.0	10.0 ~ 14.0	18	23	0.05	20	140	
SDV1608A5R5C231	5.5	4.0	10.0 ~ 14.0	18	23	0.1	30	230	
SDV1608A5R5C361	5.5	4.0	10.0 ~ 14.0	18	23	0.1	30	360	
SDV1608A5R5C551	5.5	4.0	10.0 ~ 14.0	18	23	0.1	30	550	
SDV1608A5R5C821	5.5	4.0	10.0 ~ 14.0	18	23	0.1	30	820	
SDV1608A090C121	9.0	6.4	11.0 ~ 16.0	20	26	0.05	20	120	
SDV1608A090C141	9.0	6.4	11.0 ~ 16.0	20	26	0.05	20	140	
SDV1608A090C231	9.0	6.4	11.0 ~ 16.0	20	26	0.1	30	230	
SDV1608A090C361	9.0	6.4	11.0 ~ 16.0	20	26	0.1	30	360	
SDV1608A090C551	9.0	6.4	11.0 ~ 16.0	20	26	0.1	30	550	
SDV1608A090C821	9.0	6.4	11.0 ~ 16.0	20	26	0.1	30	820	
SDV1608A140C121	14.0	10.0	16.0 ~ 22.0	30	39	0.05	20	120	
SDV1608A140C141	14.0	10.0	16.0 ~ 22.0	30	39	0.05	20	140	
SDV1608A140C251	14.0	10.0	16.0 ~ 22.0	30	39	0.1	30	250	
SDV1608A140C361	14.0	10.0	16.0 ~ 22.0	30	39	0.1	30	360	
SDV1608A140C551	14.0	10.0	16.0 ~ 22.0	30	39	0.1	30	550	
SDV1608A180C121	18.0	12.7	22.0 ~ 28.0	40	48	0.05	20	120	
SDV1608A180C141	18.0	12.7	22.0 ~ 28.0	40	48	0.05	20	140	
SDV1608A180C231	18.0	12.7	22.0 ~ 28.0	40	48	0.1	30	230	
SDV1608A180C361	18.0	12.7	22.0 ~ 28.0	40	48	0.1	30	360	
SDV1608A260C121	26.0	18.4	31.0 ~ 38.0	58	70	0.1	30	120	
SDV1608A260C161	26.0	18.4	31.0 ~ 38.0	58	70	0.1	30	160	
SDV1608A300C121	30.0	21.3	37.0 ~ 46.0	65	78	0.1	30	120	
SDV1608A300C141	30.0	21.3	37.0 ~ 46.0	65	78	0.1	30	140	



### ● SDV2012A Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	< 20μA			8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	
Test condition	DC	AC RMS	@ 1mA DC					
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C
SDV2012A5R5C121	5.5	4.0	10.0 ~ 14.0	18	23	0.05	20	120
SDV2012A5R5C242	5.5	4.0	10.0 ~ 14.0	18	23	0.3	100	2400
SDV2012A090C121	9.0	6.4	11.0 ~ 16.0	20	26	0.05	20	120
SDV2012A090C162	9.0	6.4	11.0 ~ 16.0	20	26	0.3	100	1600
SDV2012A140C121	14.0	10.0	16.0 ~ 22.0	30	39	0.05	20	120
SDV2012A140C821	14.0	10.0	16.0 ~ 22.0	30	39	0.3	100	820
SDV2012A180C121	18.0	12.7	22.0 ~ 28.0	40	48	0.05	20	120
SDV2012A180C501	18.0	12.7	22.0 ~ 28.0	40	48	0.3	100	500
SDV2012A260C191	26.0	18.4	31.0 ~ 38.0	58	70	0.1	30	190
SDV2012A300C121	30.0	21.3	37.0 ~ 46.0	65	78	0.1	30	120

### ● SDV3216A Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	< 20μA			8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	
Test condition	DC	AC RMS	@ 1mA DC					
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C
SDV3216A5R5C251	5.5	4.0	10.0 ~ 14.0	18	23	0.05	20	250
SDV3216A5R5C202	5.5	4.0	10.0 ~ 14.0	18	23	0.4	150	2000
SDV3216A090C211	9.0	6.4	11.0 ~ 16.0	20	26	0.05	20	210
SDV3216A090C162	9.0	6.4	11.0 ~ 16.0	20	26	0.4	150	1600
SDV3216A140C181	14.0	10.0	16.0 ~ 22.0	30	39	0.05	20	180
SDV3216A140C901	14.0	10.0	16.0 ~ 22.0	30	39	0.4	150	900
SDV3216A180C631	18.0	12.7	22.0 ~ 28.0	40	48	0.4	120	635
SDV3216A260C451	26.0	18.4	31.0 ~ 38.0	58	70	0.4	120	450
SDV3216A300C401	30.0	21.3	37.0 ~ 46.0	65	78	0.4	120	400
SDV3216A480C181	48.0	34.1	54.0 ~ 67.0	100	120	0.4	100	180

### ● SDV1005E Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	< 20μA			8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	
Test condition	DC	AC RMS	@ 1mA DC					
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C
SDV1005E5R5C180	5.5	4.0	10.0 ~ 14.0	18	23	0.005	3	18
SDV1005E5R5C300	5.5	4.0	10.0 ~ 14.0	18	23	0.005	5	30
SDV1005E5R5C500	5.5	4.0	10.0 ~ 14.0	18	23	0.01	10	50
SDV1005E5R5C800	5.5	4.0	10.0 ~ 14.0	18	23	0.02	10	80
SDV1005E5R5C101	5.5	4.0	10.0 ~ 14.0	18	23	0.05	20	100
SDV1005E090C180	9.0	6.4	11.0 ~ 16.0	20	26	0.005	3	18
SDV1005E090C300	9.0	6.4	11.0 ~ 16.0	20	26	0.005	5	30
SDV1005E090C500	9.0	6.4	11.0 ~ 16.0	20	26	0.01	10	50
SDV1005E090C800	9.0	6.4	11.0 ~ 16.0	20	26	0.02	15	80
SDV1005E090C101	9.0	6.4	11.0 ~ 16.0	20	26	0.05	20	100
SDV1005E140C180	14.0	10.0	16.0 ~ 22.0	30	39	0.005	3	18
SDV1005E140C300	14.0	10.0	16.0 ~ 22.0	30	39	0.01	5	30
SDV1005E140C500	14.0	10.0	16.0 ~ 22.0	30	39	0.02	10	50
SDV1005E140C800	14.0	10.0	16.0 ~ 22.0	30	39	0.03	15	80
SDV1005E140C101	14.0	10.0	16.0 ~ 22.0	30	39	0.05	20	100



### ● SDV1005E Series (continued from the preceding page)

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	< 20μA			8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	
Test condition	DC	AC RMS	@ 1mA DC					
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C
SDV1005E180C150	18.0	12.7	22.0 ~ 28.0	40	48	0.005	2	15
SDV1005E180C180	18.0	12.7	22.0 ~ 28.0	40	48	0.01	5	18
SDV1005E180C300	18.0	12.7	22.0 ~ 28.0	40	48	0.02	10	30
SDV1005E180C500	18.0	12.7	22.0 ~ 28.0	40	48	0.02	10	50
SDV1005E180C800	18.0	12.7	22.0 ~ 28.0	40	48	0.03	15	80
SDV1005E180C101	18.0	12.7	22.0 ~ 28.0	40	48	0.05	20	100
SDV1005E260C180	26.0	18.4	31.0 ~ 38.0	58	70	0.02	5	18
SDV1005E260C300	26.0	18.4	31.0 ~ 38.0	58	70	0.03	10	30
SDV1005E260C500	26.0	18.4	31.0 ~ 38.0	58	70	0.03	10	50

### ● SDV1608E Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	< 20μA			8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	
Test condition	DC	AC RMS	@ 1mA DC					
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C
SDV1608E5R5C180	5.5	4.0	10.0 ~ 14.0	18	23	0.005	3	18
SDV1608E5R5C300	5.5	4.0	10.0 ~ 14.0	18	23	0.005	5	30
SDV1608E5R5C500	5.5	4.0	10.0 ~ 14.0	18	23	0.01	10	50
SDV1608E5R5C800	5.5	4.0	10.0 ~ 14.0	18	23	0.02	10	80
SDV1608E5R5C101	5.5	4.0	10.0 ~ 14.0	18	23	0.05	20	100
SDV1608E090C180	9.0	6.4	11.0 ~ 16.0	20	26	0.005	3	18
SDV1608E090C300	9.0	6.4	11.0 ~ 16.0	20	26	0.005	5	30
SDV1608E090C500	9.0	6.4	11.0 ~ 16.0	20	26	0.01	10	50
SDV1608E090C800	9.0	6.4	11.0 ~ 16.0	20	26	0.02	15	80
SDV1608E090C101	9.0	6.4	11.0 ~ 16.0	20	26	0.05	20	100
SDV1608E140C180	14.0	10.0	16.0 ~ 22.0	30	39	0.005	3	18
SDV1608E140C300	14.0	10.0	16.0 ~ 22.0	30	39	0.01	5	30
SDV1608E140C500	14.0	10.0	16.0 ~ 22.0	30	39	0.02	10	50
SDV1608E140C800	14.0	10.0	16.0 ~ 22.0	30	39	0.03	15	80
SDV1608E140C101	14.0	10.0	16.0 ~ 22.0	30	39	0.05	20	100
SDV1608E180C180	18.0	12.7	22.0 ~ 28.0	40	48	0.005	5	18
SDV1608E180C300	18.0	12.7	22.0 ~ 28.0	40	48	0.02	10	30
SDV1608E180C600	18.0	12.7	22.0 ~ 28.0	40	48	0.02	10	60
SDV1608E180C800	18.0	12.7	22.0 ~ 28.0	40	48	0.03	15	80
SDV1608E180C101	18.0	12.7	22.0 ~ 28.0	40	48	0.05	20	100
SDV1608E260C180	26.0	18.4	31.0 ~ 38.0	58	70	0.02	5	18
SDV1608E260C300	26.0	18.4	31.0 ~ 38.0	58	70	0.03	10	30
SDV1608E260C500	26.0	18.4	31.0 ~ 38.0	58	70	0.03	10	50

### ● SDV2012E Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	< 20μA			8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	
Test condition	DC	AC RMS	@ 1mA DC					
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C
SDV2012E5R5C180	5.5	4.0	10.0-14.0	18	23	0.005	3	18
SDV2012E180C101	18.0	12.7	22.0-28.0	40	48	0.05	20	100
SDV2012E260C800	26.0	18.4	31.0-38.0	58	70	0.05	20	80
SDV2012E300C500	30.0	21.3	37.0-46.0	65	78	0.05	15	50



### ● SDV1005H Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	< 20μA			8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	
Test condition	DC	AC RMS	@ 1mA DC					
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C
SDV1005H140C100	14.0	10.0	16.0 ~ 22.0	30	39	0.005	2	10
SDV1005H140C120	14.0	10.0	16.0 ~ 22.0	30	39	0.005	2	12
SDV1005H180C050	18.0	12.7	22.0 ~ 28.0	40	48	0.005	2	5
SDV1005H180C100	18.0	12.7	22.0 ~ 28.0	40	48	0.005	2	10
SDV1005H260C030	26.0	18.4	31.0 ~ 38.0	58	70	0.003	1	3
SDV1005H260C100	26.0	18.4	31.0 ~ 38.0	58	70	0.005	2	10
SDV1005H260C120	26.0	18.4	31.0 ~ 38.0	58	70	0.005	2	12

### ● SDV1608H Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	< 20μA			8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	
Test condition	DC	AC RMS	@ 1mA DC					
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C
SDV1608H140C100	14.0	10.0	16.0-22.0	30	39	0.005	2	10
SDV1608H140C120	14.0	10.0	16.0-22.0	30	39	0.005	2	12
SDV1608H180C050	18.0	12.7	22.0-28.0	40	48	0.003	1	5
SDV1608H180C100	18.0	12.7	22.0-28.0	40	48	0.005	2	10
SDV1608H180C120	18.0	12.7	22.0-28.0	40	48	0.005	2	12
SDV1608H260C030	26.0	18.4	31.0-38.0	58	70	0.003	1	3
SDV1608H260C100	26.0	18.4	31.0-38.0	58	70	0.005	2	10
SDV1608H260C120	26.0	18.4	31.0-38.0	58	70	0.005	2	12

### ● SDV1005S Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	< 20μA			8/20μs	ESD	Energy 10/1000μs	Peak Current 8/20μs	
Test condition	DC	AC RMS	@ 1mA DC					
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C
SDV1005S5R5C030	5.5	4.0	31.0-38.0	58	70	0.003	1	3
SDV1005S5R5C050	5.5	4.0	22.0-28.0	40	48	0.003	1	5
SDV1005S5R5C100	5.5	4.0	22.0-28.0	40	48	0.005	2	10
SDV1005S5R5C120	5.5	4.0	22.0-28.0	40	48	0.005	2	12
SDV1005S090C030	9.0	6.4	31.0-38.0	58	70	0.003	1	3
SDV1005S090C050	9.0	6.4	22.0-28.0	40	48	0.003	1	5
SDV1005S090C100	9.0	6.4	22.0-28.0	40	48	0.005	2	10
SDV1005S090C120	9.0	6.4	22.0-28.0	40	48	0.005	2	12
SDV1005S140C030	14.0	10.0	31.0-38.0	58	70	0.003	1	3
SDV1005S140C050	14.0	10.0	22.0-28.0	40	48	0.003	1	5
SDV1005S180C030	18.0	12.7	31.0-38.0	58	70	0.003	1	3



### ● SDV1608S Series

Part Number	Maximum Working Voltage		Varistor Voltage	Maximum Clamping Voltage		Rated Single Pulse Transient		Typical Capacitance
	< 20 $\mu$ A			8/20 $\mu$ s	ESD	Energy 10/1000 $\mu$ s	Peak Current 8/20 $\mu$ s	
Test condition	DC	AC RMS	@ 1mA DC					
Unit	Volts	Volts	Volts	Volts	Volts	Joules	Amps	pF
Symbol	V <sub>WDC</sub>	V <sub>WAC</sub>	V <sub>B</sub>	V <sub>C</sub> <sup>(1)</sup>	V <sub>C</sub> <sup>(2)</sup>	E <sub>T</sub>	I <sub>P</sub>	C
SDV1608S5R5C030	5.5	4.0	31.0-38.0	58	70	0.003	1	3
SDV1608S5R5C050	5.5	4.0	22.0-28.0	40	48	0.003	1	5
SDV1608S5R5C100	5.5	4.0	22.0-28.0	40	48	0.005	2	10
SDV1608S5R5C120	5.5	4.0	22.0-28.0	40	48	0.005	2	12
SDV1608S090C030	9.0	6.4	31.0-38.0	58	70	0.003	1	3
SDV1608S090C050	9.0	6.4	22.0-28.0	40	48	0.003	1	5
SDV1608S090C100	9.0	6.4	22.0-28.0	40	48	0.005	2	10
SDV1608S090C120	9.0	6.4	22.0-28.0	40	48	0.005	2	12
SDV1608S140C030	14.0	10.0	31.0-38.0	58	70	0.003	1	3
SDV1608S140C050	14.0	10.0	22.0-28.0	40	48	0.003	1	5
SDV1608S180C030	18.0	12.7	31.0-38.0	58	70	0.003	1	3

### ● Note

(1) V<sub>C</sub>, maximum peak voltage across the varistor measured at a specified pulse current and waveform

Energy Rating	Pulse & Waveform
0.001~0.05J	1A, 8/20 $\mu$ s
0.10J	2A, 8/20 $\mu$ s
0.20~0.5J	5A, 8/20 $\mu$ s

(2) V<sub>C</sub>, maximum peak voltage across the varistor measured at 30ns after initiation of pulse on IEC61000-4-2 30A/8KV

(3) For other frequencies or specifications, please consult with our sales representatives for details.