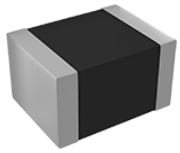
High Voltage Multilayer Chip Varistor for Surge Suppression – SVMH Series

Operating Temp. : -55℃~+125℃



FEATURES

- SMD type, small size suitable for high density mounting.
- Excellent clamping ratio and strong capability of voltage surge suppression.
- High voltage varistor, suitable for AC circuit.

APPLICATIONS

- Lightning protection and voltage surge suppression for Power supply, Network Interface, LED lighting.

PRODUCT IDENTIFICATION

SVMH	2016	K	A	301	P	T	500
①	②	③	④	⑤	⑥	⑦	⑧

①

Type	
SVMH	Multilayer Chip Varistor for High Voltage

②

External Dimensions (L×W) (mm)	
2016 [0806]	2.2×1.6
3216 [1206]	3.2×1.6
3225 [1210]	3.2×2.5
4532 [1812]	4.6×3.5
5650 [2220]	6.0×5.3

③

Tolerance of Varistor Voltage	
K	±10%

④

Type of Working Voltage	
A	交流工作电压 AC Working Voltage

⑤

Max. Continuous Working Voltage	
Example	Nominal Value
301	300V

⑥

Terminal Code	
P	Ni, Sn Plating

⑦

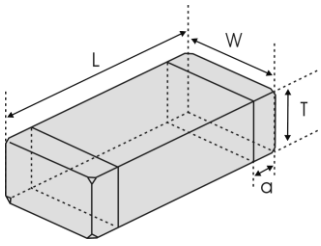
Packing	
T	Tape & Reel

⑧

Peak Surge Current	
500	50A
501	500A

SHAPE AND DIMENSIONS

Unit: mm [inch]



Type	L	W	T	a
SVMH2016 [0806]	2.2±0.2 [.087±.008]	1.6+0.4/-0.2 [.063+.016/-0.08]	2.0 Max. [.079]	0.25~0.75 [.010~.029]
SVMH3216 [1206]	3.2+0.6/-0.2 [.126+0.024/-.008]	1.6+0.4/-0.2 [.063+.016/-0.08]	2.0 Max. [.079]	0.25~0.75 [.010~.029]
SVMH3225 [1210]	3.2+0.6/-0.2 [.126+0.024/-.008]	2.5+0.4/-0.2 [.098+.016/-0.08]	2.6 Max. [.102]	0.25~0.75 [.010~.029]
SVMH4532 [1812]	4.6+0.6/-0.2 [.177+0.024/-.008]	3.5+0.5/-0.2 [.126+.020/-0.08]	3.5 Max. [.138]	0.30~0.80 [.012~.031]
SVMH5650 [2220]	6.0+0.7/-0.3 [.236+.028/-.012]	5.3+0.5/-0.3 [.209+.020/-.012]	3.6 Max. [.142]	0.40~0.90 [.016~.034]

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SPECIFICATIONS

SVMH2016 TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient	
Test Condition	<30μA		@1mA DC	8/20μs		Energy 10/1000μs	Peak Current 8/20μs
	DC	AC RMS					
Units	Volts	Volts	Volts	Volts	Amps	Joules	Amps
Symbol	V_{WDC}	V_{WAC}	V_B	V_C	I_C	E_T	I_P
SVMH2016KA151PT101	200	150	240[216-264]	360	5.0	0.36	100
SVMH2016KA151PT181	200	150	240[216-264]	360	5.0	0.36	180
SVMH2016KA171PT181	225	175	270[243-297]	410	5.0	0.40	180
SVMH2016KA191PT101	250	195	300[270-330]	450	5.0	0.40	100
SVMH2016KA211PT101	275	210	330[297-363]	495	5.0	0.36	100
SVMH2016KA231PT101	300	230	360[324-396]	540	5.0	0.36	100
SVMH2016KA251PT700	320	250	390[351-429]	590	5.0	0.30	70
SVMH2016KA251PT500	320	250	390[351-429]	590	5.0	0.36	50
SVMH2016KA271PT500	350	275	430[387-473]	650	5.0	0.40	50
SVMH2016KA301PT500	385	300	470[423-517]	710	5.0	0.30	50
SVMH2016KA321PT500	410	320	510[459-561]	880	5.0	0.30	50

SVMH3216 TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient	
Test Condition	<30μA		@1mA DC	8/20μs		Energy 10/1000μs	Peak Current 8/20μs
	DC	AC RMS					
Units	Volts	Volts	Volts	Volts	Amps	Joules	Amps
Symbol	V_{WDC}	V_{WAC}	V_B	V_C	I_C	E_T	I_P
SVMH3216KA151PT301	200	150	240[216-264]	360	5.0	0.9	300
SVMH3216KA171PT301	225	175	270[243-297]	410	5.0	1.0	300
SVMH3216KA191PT201	250	195	300[270-330]	450	5.0	1.0	200
SVMH3216KA211PT201	275	210	330[297-363]	495	5.0	1.0	200
SVMH3216KA231PT201	300	230	360[324-396]	540	5.0	0.9	200
SVMH3216KA251PT101	320	250	390[351-429]	590	5.0	0.9	100
SVMH3216KA271PT101	350	275	430[387-473]	650	5.0	1.0	100
SVMH3216KA301PT101	385	300	470[423-517]	710	5.0	0.5	100
SVMH3216KA321PT600	410	320	510[459-561]	880	5.0	0.5	60

SVMH3225 TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient	
Test Condition	<30μA		@1mA DC	8/20μs		Energy 10/1000μs	Peak Current 8/20μs
	DC	AC RMS					
Units	Volts	Volts	Volts	Volts	Amps	Joules	Amps
Symbol	V_{WDC}	V_{WAC}	V_B	V_C	I_C	E_T	I_P
SVMH3225KA151PT401	200	150	240[216-264]	360	5.0	1.8	400
SVMH3225KA171PT401	225	175	270[243-297]	410	5.0	2.0	400
SVMH3225KA191PT401	250	195	300[270-330]	450	5.0	2.0	400
SVMH3225KA211PT401	275	210	330[297-363]	495	5.0	1.8	400
SVMH3225KA231PT401	300	230	360[324-396]	540	5.0	1.8	400
SVMH3225KA251PT201	320	250	390[351-429]	590	5.0	1.8	200
SVMH3225KA271PT201	350	275	430[387-473]	650	5.0	1.8	200
SVMH3225KA301PT201	385	300	470[423-517]	710	5.0	2.0	200
SVMH3225KA301PT301	385	300	470[423-517]	710	5.0	2.0	300
SVMH3225KA301PT401	385	300	470[423-517]	710	5.0	2.0	400

SPECIFICATIONS

SVMH3225 TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient	
Test Condition	<30μA DC	<30μA AC RMS	@1mA DC	8/20μs		Energy 10/1000μs	Peak Current 8/20μs
Units	Volts	Volts	Volts	Volts	Amps	Joules	Amps
Symbol	V_{WDC}	V_{WAC}	V_B	V_C	I_C	E_T	I_P
SVMH3225KA321PT151	410	320	510[459-561]	880	5.0	2.0	150
SVMH3225KA321PT251	410	320	510[459-561]	880	5.0	2.0	250

SVMH4532 TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient	
Test Condition	<30μA DC	<30μA AC RMS	@1mA DC	8/20μs		Energy 10/1000μs	Peak Current 8/20μs
Units	Volts	Volts	Volts	Volts	Amps	Joules	Amps
Symbol	V_{WDC}	V_{WAC}	V_B	V_C	I_C	E_T	I_P
SVMH4532KA171PT801	225	175	270[243-297]	410	5.0	7.2	800
SVMH4532KA301PT401	385	300	470[423-517]	710	5.0	7.2	400
SVMH4532KA301PT801	385	300	470[423-517]	710	5.0	5.0	800
SVMH4532KA321PT251	410	320	510[459-561]	880	5.0	5.0	250

SVMH5650 TYPE

Part Number	Max. Working Voltage		Varistor Voltage	Max. Clamping Voltage		Rated Single Pulse Transient	
Test Condition	<30μA DC	<30μA AC RMS	@1mA DC	8/20μs		Energy 10/1000μs	Peak Current 8/20μs
Units	Volts	Volts	Volts	Volts	Amps	Joules	Amps
Symbol	V_{WDC}	V_{WAC}	V_B	V_C	I_C	E_T	I_P
SVMH5650KA151PT152	200	150	240[216-264]	395	10.0	10	1500
SVMH5650KA171PT152	225	175	270[243-297]	455	10.0	10	1500
SVMH5650KA191PT122	250	195	300[270-330]	495	10.0	10	1200
SVMH5650KA191PT152	250	195	300[270-330]	495	10.0	10	1500
SVMH5650KA211PT122	275	210	330[297-363]	540	10.0	10	1200
SVMH5650KA211PT152	275	210	330[297-363]	540	10.0	10	1500
SVMH5650KA231PT122	300	230	360[324-396]	595	10.0	10	1200
SVMH5650KA231PT152	300	230	360[324-396]	595	10.0	10	1500
SVMH5650KA231PT202	300	230	360[324-396]	595	10.0	10	2000
SVMH5650KA251PT801	320	250	390[351-429]	650	10.0	10	800
SVMH5650KA271PT801	350	275	430[387-473]	710	10.0	10	800
SVMH5650KA301PT801	385	300	470[423-517]	775	10.0	10	800
SVMH5650KA321PT102	410	320	510[459-561]	845	10.0	10	1000
SVMH5650KA351PT102	455	350	560[504-616]	925	10.0	10	1000

※V_{AC} : Max AC working voltage of Varistor must exceed or equal to 1.2 times that of the application circuit voltage, $V_{AC} \geqslant 1.2 V_n$.

※I_P : Rated single pulse current at 8/20us of Varistor must exceed or equal to 1.2 times that of the application circuit pulse current, $I_P \geqslant 1.2 I_{Pn}$.

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