



3.0SMCJ10-AU~3.0SMCJ150CA-AU

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR PEAK PULSE POWER 3000 Watt

STAND-OFF VOLTAGE

10 to 150 V

SMC / DO-214AB

Unit : inch(mm)

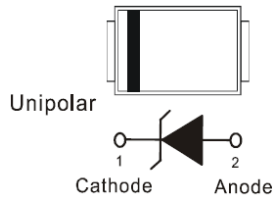
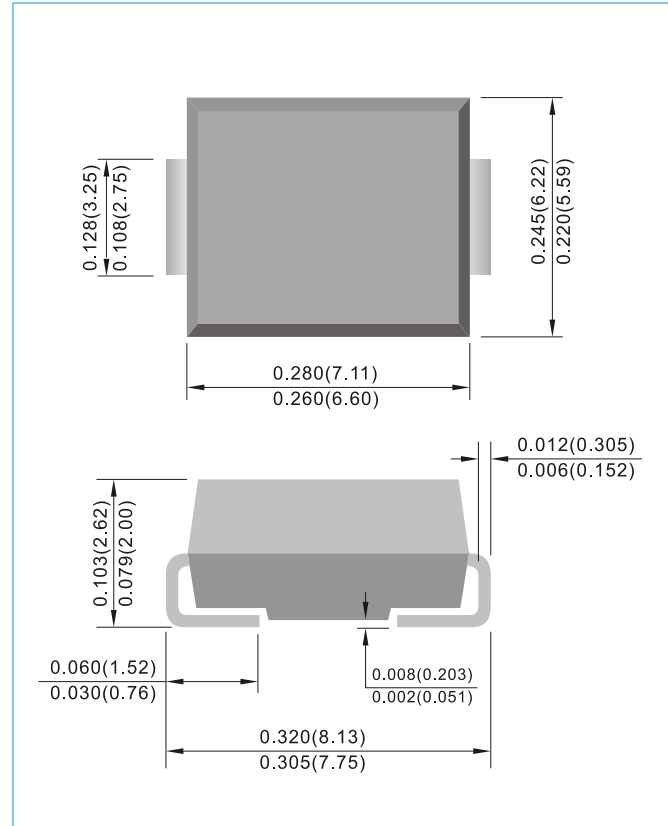
Recongized File # E210467

Features

- For surface mounted applications in order to optimize board space.
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering : 260°C/10 seconds at terminals
- ESD IEC-61000-4-2 Air \pm 30kV, Contact \pm 30kV
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std..(Halogen Free)

Mechanical Data

- Case: JEDEC DO-214AB, Molded plastic over passivated junction.
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard Packaging: 16mm tape (EIA-481)
- Approx. Weight: 0.008 ounces, 0.23 grams



DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types 3.0SMCJ10-AU thru types 3.0SMCJ150-AU

Electrical characteristics apply in both directions.

DEVICES FOR BIPOLAR APPLICATIONS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

For Capacitive load derate current by 20%.

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on $t_p=10/1000\mu s$ waveform ^(NOTE1,2, Fig.1)	P_{PP}	3000	W
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load ^(NOTE2,3)	I_{FSM}	200	A
Peak Pulse Current on $t_p=10/1000\mu s$ waveform ^(NOTE1, Fig.3)	I_{PPM}	See table 1	A
ESD IEC61000-4-2(Air)	V_{ESD}	± 30	kV
ESD IEC61000-4-2(Contact)		± 30	
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	25	$^{\circ}C/W$
Operating Junction And Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^{\circ}C$

Notes :

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^{\circ}C$ per Fig.2
2. Mounted on $8mm^2$ (0.013mm thick) land areas.
3. Measured on 8.3ms , single half sine-wave or equivalent square wave , duty cycle= 4 pulses per minutes maximum.
4. A transient suppressor is selected according to the working peak reverse voltage(V_{RWM}), which should be equal to or greater than the DC or continuous peak operation voltage level.



3.0SMCJ10-AU~3.0SMCJ150CA-AU

Electrical Characteristics

Part Number		V _{RWM} (NOTE 4)	V _{BR}			I _R @V _{RWM}		V _C @I _{PP}		Marking Code	
			Min.	Max.	I _T			Max.			
UNI	BI	V	V	V	mA	UNI μA	BI μA	V	A	UNI	BI
3.0SMCJ10-AU	3.0SMCJ10C-AU	10	11.1	14.1	1	3	3	18.8	159.6	HDW	IDW
3.0SMCJ10A-AU	3.0SMCJ10CA-AU	10	11.1	12.8	1	3	3	17	176.4	HDX	IDX
3.0SMCJ11-AU	3.0SMCJ11C-AU	11	12.2	15.4	1	3	3	20.1	149.2	HDY	IDY
3.0SMCJ11A-AU	3.0SMCJ11CA-AU	11	12.2	14	1	3	3	18.2	184.8	HDZ	IDZ
3.0SMCJ12-AU	3.0SMCJ12C-AU	12	13.3	16.9	1	3	3	22	136.4	HED	IED
3.0SMCJ12A-AU	3.0SMCJ12CA-AU	12	13.3	15.3	1	3	3	19.9	150.6	HEE	IEE
3.0SMCJ13-AU	3.0SMCJ13C-AU	13	14.4	18.2	1	3	3	23.8	126	HEF	IEF
3.0SMCJ13A-AU	3.0SMCJ13CA-AU	13	14.4	16.5	1	3	3	21.5	139.4	HEG	IEG
3.0SMCJ14-AU	3.0SMCJ14C-AU	14	15.6	19.8	1	3	3	25.8	116.2	HEH	IEH
3.0SMCJ14A-AU	3.0SMCJ14CA-AU	14	15.6	17.9	1	3	3	23.2	129.4	HEK	IEK
3.0SMCJ15-AU	3.0SMCJ15C-AU	15	16.7	21.1	1	3	3	26.9	111.6	HEL	IEL
3.0SMCJ15A-AU	3.0SMCJ15CA-AU	15	16.7	19.2	1	3	3	24.4	123	HEM	IEM
3.0SMCJ16-AU	3.0SMCJ16C-AU	16	17.8	22.6	1	3	3	28.8	104.2	HEN	IEN
3.0SMCJ16A-AU	3.0SMCJ16CA-AU	16	17.8	20.5	1	3	3	26	115.4	HEP	IEP
3.0SMCJ17-AU	3.0SMCJ17C-AU	17	18.9	23.9	1	3	3	30.5	98.4	HEQ	IEQ
3.0SMCJ17A-AU	3.0SMCJ17CA-AU	17	18.9	21.7	1	3	3	27.6	106.6	HER	IER
3.0SMCJ18-AU	3.0SMCJ18C-AU	18	20	25.3	1	3	3	32.2	93.2	HES	IES
3.0SMCJ18A-AU	3.0SMCJ18CA-AU	18	20	23.3	1	3	3	29.2	102.8	HET	IET
3.0SMCJ20-AU	3.0SMCJ20C-AU	20	22.2	28.1	1	3	3	35.8	83.8	HEU	IEU
3.0SMCJ20A-AU	3.0SMCJ20CA-AU	20	22.2	25.5	1	3	3	32.4	92.6	HEV	IEV
3.0SMCJ22-AU	3.0SMCJ22C-AU	22	24.4	30.9	1	3	3	39.4	76.2	HEW	IEW
3.0SMCJ22A-AU	3.0SMCJ22CA-AU	22	24.4	28	1	3	3	35.5	84.4	HEX	IEX
3.0SMCJ24-AU	3.0SMCJ24C-AU	24	26.7	33.8	1	3	3	43	69.8	HEY	IEY
3.0SMCJ24A-AU	3.0SMCJ24CA-AU	24	26.7	30.7	1	3	3	38.9	77.2	HEZ	IEZ
3.0SMCJ26-AU	3.0SMCJ26C-AU	26	28.9	36.6	1	3	3	46.6	64.4	HFD	IFD
3.0SMCJ26A-AU	3.0SMCJ26CA-AU	26	28.9	33.2	1	3	3	42.1	71.2	HFE	IFE
3.0SMCJ28-AU	3.0SMCJ28C-AU	28	31.1	39.4	1	3	3	50	60	HFF	IFF
3.0SMCJ28A-AU	3.0SMCJ28CA-AU	28	31.1	35.8	1	3	3	45.4	66	HFG	IFG
3.0SMCJ30-AU	3.0SMCJ30C-AU	30	33.3	42.1	1	3	3	53.5	56	HFH	IFH
3.0SMCJ30A-AU	3.0SMCJ30CA-AU	30	33.3	38.3	1	3	3	48.4	62	HFK	IFK
3.0SMCJ33-AU	3.0SMCJ33C-AU	33	36.7	46.5	1	3	3	59	50.4	HFL	IFL
3.0SMCJ33A-AU	3.0SMCJ33CA-AU	33	36.7	42.2	1	3	3	53.3	56.2	HFM	IFM
3.0SMCJ36-AU	3.0SMCJ36C-AU	36	40	50.7	1	3	3	64.3	46.6	HFN	IFN
3.0SMCJ36A-AU	3.0SMCJ36CA-AU	36	40	46	1	3	3	58.1	51.6	HFP	IFP
3.0SMCJ40-AU	3.0SMCJ40C-AU	40	44.4	56.3	1	3	3	71.4	42	HFQ	IFQ
3.0SMCJ40A-AU	3.0SMCJ40CA-AU	40	44.4	51.1	1	3	3	64.5	46.4	HFR	IFR
3.0SMCJ43-AU	3.0SMCJ43C-AU	43	47.8	60.5	1	3	3	76.7	39.2	HFS	IFS
3.0SMCJ43A-AU	3.0SMCJ43CA-AU	43	47.8	54.9	1	3	3	69.4	43.2	HFT	IFT
3.0SMCJ45-AU	3.0SMCJ45C-AU	45	50	63.3	1	3	3	80.3	37.4	HFU	IFU
3.0SMCJ45A-AU	3.0SMCJ45CA-AU	45	50	57.5	1	3	3	72.7	41.2	HFV	IFV
3.0SMCJ48-AU	3.0SMCJ48C-AU	48	53.3	67.5	1	3	3	85.5	35	HFV	IFW
3.0SMCJ48A-AU	3.0SMCJ48CA-AU	48	53.3	61.3	1	3	3	77.4	38.8	HFX	IFX
3.0SMCJ51-AU	3.0SMCJ51C-AU	51	56.7	71.8	1	3	3	91.1	37	HFY	IFY
3.0SMCJ51A-AU	3.0SMCJ51CA-AU	51	56.7	65.2	1	3	3	82.4	36.4	HFZ	IFZ
3.0SMCJ54-AU	3.0SMCJ54C-AU	54	60	76	1	3	3	96.3	31.2	HGD	IGD
3.0SMCJ54A-AU	3.0SMCJ54CA-AU	54	60	69	1	3	3	87.1	34.4	HGE	IGE
3.0SMCJ58-AU	3.0SMCJ58C-AU	58	64.4	81.6	1	3	3	103	39.2	HGF	IGF
3.0SMCJ58A-AU	3.0SMCJ58CA-AU	58	64.4	74.1	1	3	3	93.6	32	HGG	IGG
3.0SMCJ60-AU	3.0SMCJ60C-AU	60	66.7	84.5	1	3	3	107	28	HGH	IGH
3.0SMCJ60A-AU	3.0SMCJ60CA-AU	60	66.7	76.7	1	3	3	96.8	31	HGK	IGK
3.0SMCJ64-AU	3.0SMCJ64C-AU	64	71.1	90.1	1	3	3	114	26.4	HGL	IGL
3.0SMCJ64A-AU	3.0SMCJ64CA-AU	64	71.1	81.8	1	3	3	103	29.2	HGM	IGM



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Part Number		V _{RWM} (NOTE 4)	V _{BR}			I _R @V _{RWM}		V _C @I _{PP}		Marking	
			Min.	Max.	I _T	UNI	BI	Max.		Code	
UNI	BI	V	V	V	mA	UNI μA	BI μA	V	A	UNI	BI
3.0SMCJ70-AU	3.0SMCJ70C-AU	70	77.8	98.6	1	3	3	125	24	HGN	IGN
3.0SMCJ70A-AU	3.0SMCJ70CA-AU	70	77.8	89.5	1	3	3	113	26.6	HGP	IGP
3.0SMCJ75-AU	3.0SMCJ75C-AU	75	83.3	105.7	1	3	3	134	22.4	HGQ	IGQ
3.0SMCJ75A-AU	3.0SMCJ75CA-AU	75	83.3	95.8	1	3	3	121	24.8	HGR	IGR
3.0SMCJ78-AU	3.0SMCJ78C-AU	78	86.7	109.8	1	3	3	139	21.6	HGS	IGS
3.0SMCJ78A-AU	3.0SMCJ78CA-AU	78	86.7	99.7	1	3	3	126	22.8	HGT	IGT
3.0SMCJ85-AU	3.0SMCJ85C-AU	85	94.4	119.2	1	3	3	151	19.8	HGU	IGU
3.0SMCJ85A-AU	3.0SMCJ85CA-AU	85	94.4	108.2	1	3	3	137	20.8	HGV	IGV
3.0SMCJ90-AU	3.0SMCJ90C-AU	90	100	126.5	1	3	3	160	18.8	HGW	IGW
3.0SMCJ90A-AU	3.0SMCJ90CA-AU	90	100	115.5	1	3	3	146	20.6	HGX	IGX
3.0SMCJ100-AU	3.0SMCJ100C-AU	100	111	141	1	3	3	179	16.6	HGY	IGY
3.0SMCJ100A-AU	3.0SMCJ100CA-AU	100	111	128	1	3	3	162	18.6	HGZ	IGZ
3.0SMCJ110-AU	3.0SMCJ110C-AU	110	122	154.5	1	3	3	196	15.4	HHD	IHD
3.0SMCJ110A-AU	3.0SMCJ110CA-AU	110	122	140.5	1	3	3	177	16.8	HHE	IHE
3.0SMCJ120-AU	3.0SMCJ120C-AU	120	133	169	1	3	3	214	14	HHF	IHF
3.0SMCJ120A-AU	3.0SMCJ120CA-AU	120	133	153	1	3	3	193	15.6	HHG	IHG
3.0SMCJ130-AU	3.0SMCJ130C-AU	130	144	182.5	1	3	3	231	13	HHH	IHH
3.0SMCJ130A-AU	3.0SMCJ130CA-AU	130	144	165.5	1	3	3	209	14.4	HHK	IHK
3.0SMCJ150-AU	3.0SMCJ150C-AU	150	167	211.5	1	3	3	268	11.2	HHL	IHL
3.0SMCJ150A-AU	3.0SMCJ150CA-AU	150	167	192.5	1	3	3	243	12.4	HHM	IHM

3.0SMCJ10-AU~3.0SMCJ150CA-AU

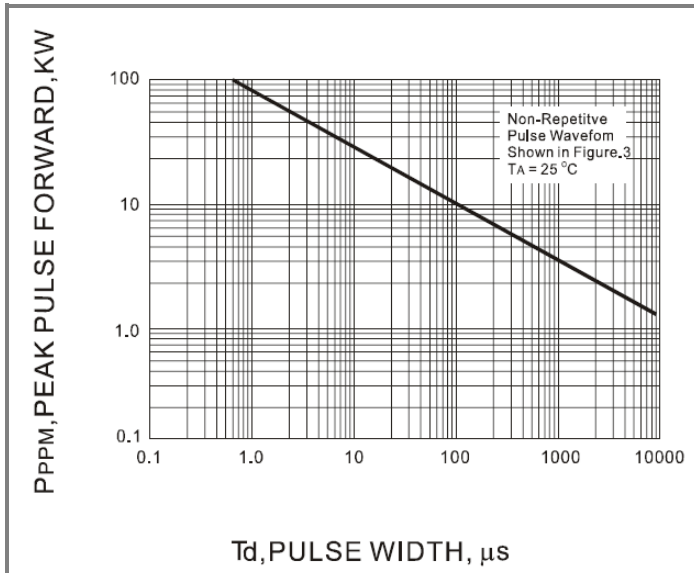


Fig.1 Peak Pulse Power Rating Curve

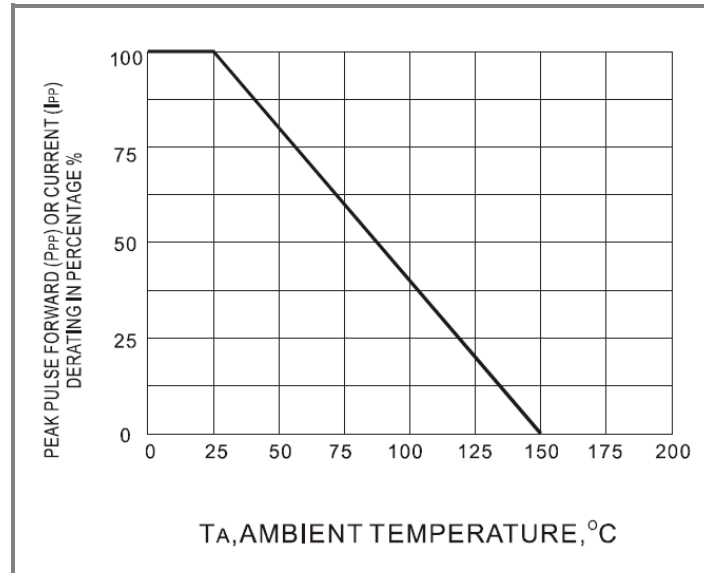


Fig.2 Derating Curve

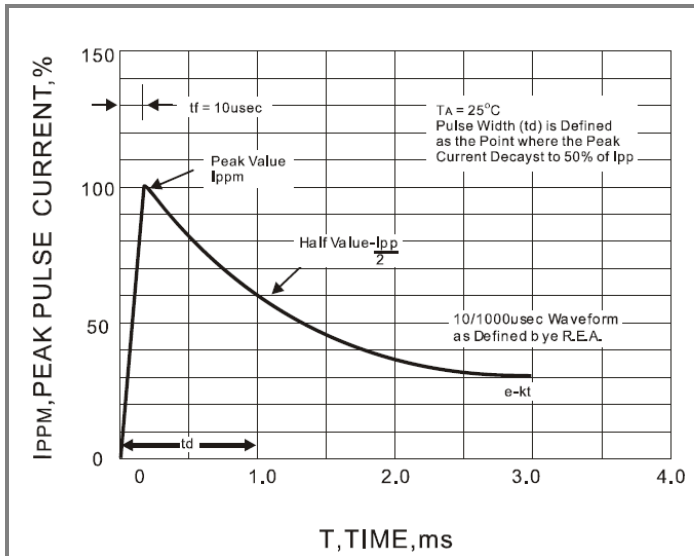


Fig.3 Pulse Waveform

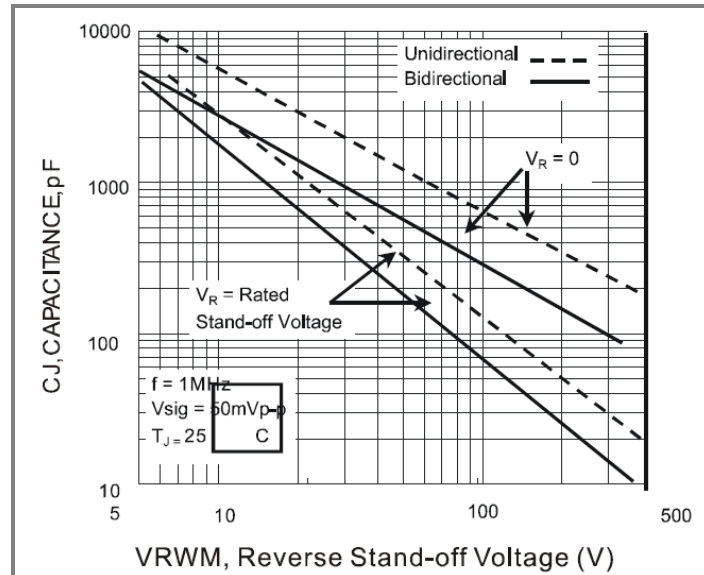


Fig.4 Typical Junction Capacitance

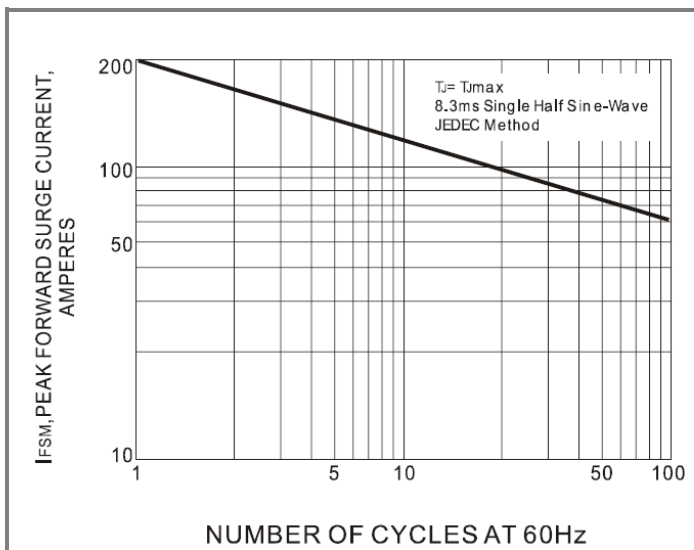


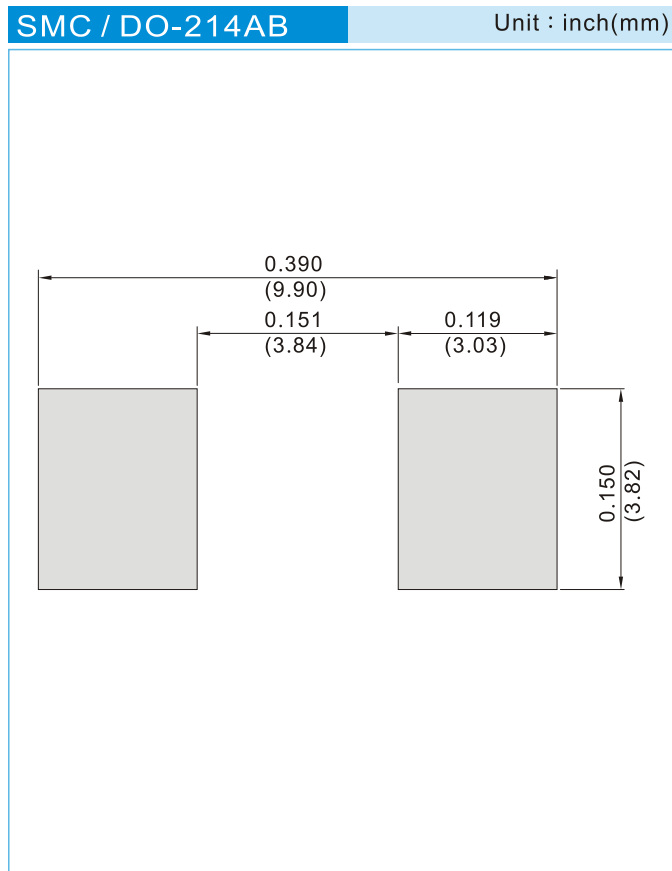
Fig.5 Maximum non-repetitive peak forward surge current

3.0SMCJ10-AU~3.0SMCJ150CA-AU

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
3.0SMCJ10-AU_R1_000A1	SMC	3K pcs / 13" reel	HDW	Halogen free
3.0SMCJ10-AU_R2_000A1	SMC	0.5K pcs / 7" reel	HDW	Halogen free

Mounting Pad Layout





3.0SMCJ10-AU~3.0SMCJ150CA-AU

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