



## 3.0SMCJ10A-AU ~ 3.0SMCJ70CA-AU Series

### SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

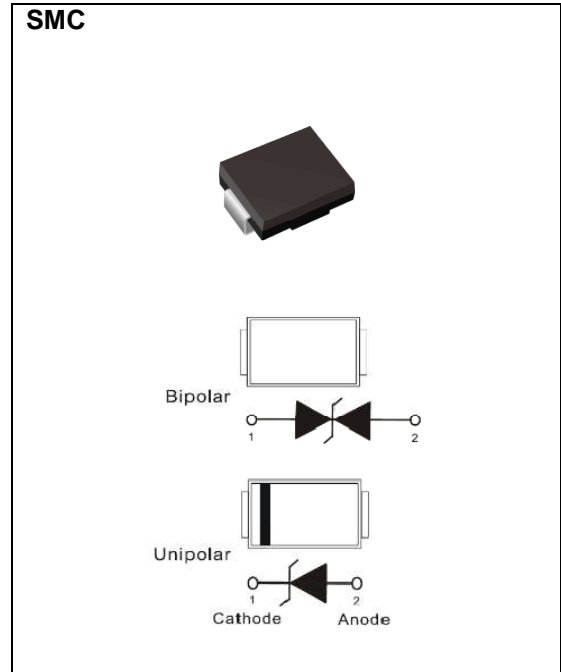
**Voltage** 10~70 V **Power** 3000 W

#### Features

- ISO10605(C=330 pF,R=330Ω): ± 30kV Air, ± 30kV Contact
- HBM ≥ ± 8 kV & CDM ≥ ± 2 kV
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### Mechanical Data

- Case: Molded plastic, SMC
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0082 ounces, 0.233 grams



### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation(tp = 10 / 1000 us)	P <sub>PP</sub> <sup>(1)</sup>	3000	W
Peak Forward Surge Current(8.3 ms single half sine-wave)	I <sub>FSM</sub> <sup>(3)</sup>	300	A
Peak Pulse Current on tp = 10 / 1000 us waveform <sup>(Fig.2)</sup>	I <sub>PPM</sub> <sup>(1)</sup>	See table 1	A
ISO10605(C = 330 pF, R = 330 Ω) (Air)	V <sub>ESD</sub>	±30	kV
ISO10605(C = 330 pF, R = 330 Ω) (Contact)		±30	
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub> <sup>(2)</sup>	125	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C



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### Electrical Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

Part Number		V <sub>RWM</sub>	V <sub>BR</sub>			I <sub>R</sub>		V <sub>C</sub> @I <sub>PP</sub>		Marking Code	
			Min.	Max.	I <sub>T</sub>	@ V <sub>RWM</sub>					
UNI.	BI.	V	V	V	mA	UNI.	BI.	V	A	UNI.	BI.
3000W Transient Voltage Suppressor											
3.0SMCJ10A-AU	3.0SMCJ10CA-AU	10	11.1	12.8	1	3	3	17	176.4	HDX	IDX
3.0SMCJ11A-AU	3.0SMCJ11CA-AU	11	12.2	14	1	3	3	18.2	184.8	HDZ	IDZ
3.0SMCJ12A-AU	3.0SMCJ12CA-AU	12	13.3	15.3	1	3	3	19.9	150.6	HEE	IEE
3.0SMCJ13A-AU	3.0SMCJ13CA-AU	13	14.4	16.5	1	3	3	21.5	139.4	HEG	IEG
3.0SMCJ14A-AU	3.0SMCJ14CA-AU	14	15.6	17.9	1	3	3	23.2	129.4	HEK	IEK
3.0SMCJ15A-AU	3.0SMCJ15CA-AU	15	16.7	19.2	1	3	3	24.4	123	HEM	IEM
3.0SMCJ16A-AU	3.0SMCJ16CA-AU	16	17.8	20.5	1	3	3	26	115.4	HEP	IEP
3.0SMCJ17A-AU	3.0SMCJ17CA-AU	17	18.9	21.7	1	3	3	27.6	106.6	HER	IER
3.0SMCJ18A-AU	3.0SMCJ18CA-AU	18	20	23.3	1	3	3	29.2	102.8	HET	IET
3.0SMCJ20A-AU	3.0SMCJ20CA-AU	20	22.2	25.5	1	3	3	32.4	92.6	HEV	IEV
3.0SMCJ22A-AU	3.0SMCJ22CA-AU	22	24.4	28	1	3	3	35.5	84.4	HEX	IEX
3.0SMCJ24A-AU	3.0SMCJ24CA-AU	24	26.7	30.7	1	3	3	38.9	77.2	HEZ	IEZ
3.0SMCJ26A-AU	3.0SMCJ26CA-AU	26	28.9	33.2	1	3	3	42.1	71.2	HFE	IFE
3.0SMCJ28A-AU	3.0SMCJ28CA-AU	28	31.1	35.8	1	3	3	45.4	66	HFG	IFG
3.0SMCJ30A-AU	3.0SMCJ30CA-AU	30	33.3	38.3	1	3	3	48.4	62	HFK	IFK
3.0SMCJ33A-AU	3.0SMCJ33CA-AU	33	36.7	42.2	1	3	3	53.3	56.2	HFM	IFM
3.0SMCJ36A-AU	3.0SMCJ36CA-AU	36	40	46	1	3	3	58.1	51.6	HFP	IFP
3.0SMCJ40A-AU	3.0SMCJ40CA-AU	40	44.4	51.1	1	3	3	64.5	46.4	HFR	IFR
3.0SMCJ43A-AU	3.0SMCJ43CA-AU	43	47.8	54.9	1	3	3	69.4	43.2	HFT	IFT
3.0SMCJ45A-AU	3.0SMCJ45CA-AU	45	50	57.5	1	3	3	72.7	41.2	HFV	IFV
3.0SMCJ48A-AU	3.0SMCJ48CA-AU	48	53.3	61.3	1	3	3	77.4	38.8	HFX	IFX
3.0SMCJ51A-AU	3.0SMCJ51CA-AU	51	56.7	65.2	1	3	3	82.4	36.4	HFZ	IFZ
3.0SMCJ54A-AU	3.0SMCJ54CA-AU	54	60	69	1	3	3	87.1	34.4	HGE	IGE
3.0SMCJ58A-AU	3.0SMCJ58CA-AU	58	64.4	74.1	1	3	3	93.6	32	HGG	IGG
3.0SMCJ60A-AU	3.0SMCJ60CA-AU	60	66.7	76.7	1	3	3	96.8	31	HGK	IGK
3.0SMCJ64A-AU	3.0SMCJ64CA-AU	64	71.1	81.8	1	3	3	103	29.2	HGM	IGM
3.0SMCJ70A-AU	3.0SMCJ70CA-AU	70	77.8	89.5	1	3	3	113	26.6	HGP	IGP

**Note:**

1. Non-repetitive current pulse, per Fig.3 and derated above T<sub>A</sub>=25°C per Fig.2
2. Mounted on a FR4 PCB, single-sided copper, mini pad
3. Measured on 8.3ms single half sine wave or equivalent square wave for unidirectional device only, duty cycle=4 per minute maximum



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#### TYPICAL CHARACTERISTIC CURVES

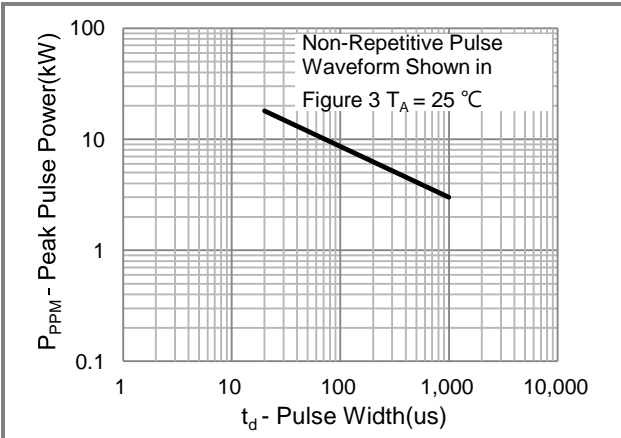


Fig.1 Pulse Power Rating Curve

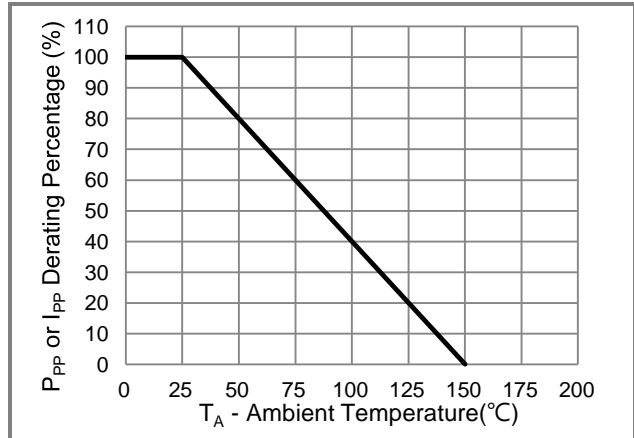


Fig.2 Derating Curve

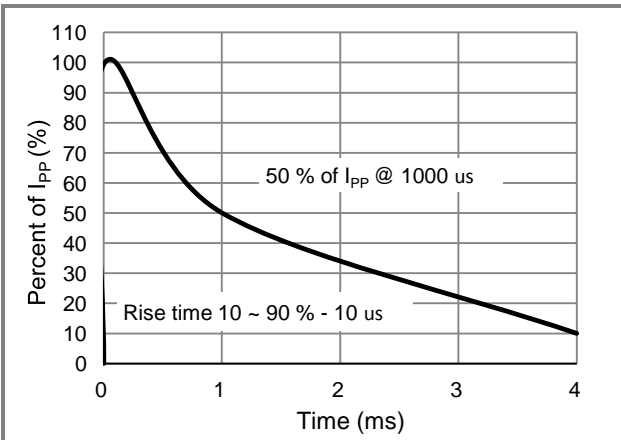


Fig.3 10/1000us Pulse Waveform

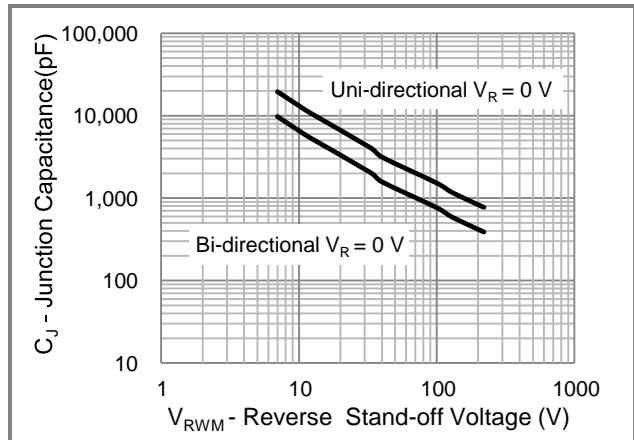


Fig.4 Typical Capacitance



## 3.0SMCJ10A-AU ~ 3.0SMCJ70CA-AU Series

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
3.0SMCJxxxx-AU_R1_000A1	SMC	0.8K pcs / 7" reel	See Table	Halogen free

Packaging Information & Mounting Pad Layout

