# Kingtronics®

### SMCJ SERIES

### 1500W SURFACE MOUNT TRANSIENT VOLTAGE

**REVERSE VOLTAGE** 5.0 to 440 Volts

**PEAK PULSE POWER** 1500 Watts

#### **FEATURES**

1500W Peak Pulse Power Dissipation

5.0V - 440V Standoff Voltages

Glass Passivated Die Construction

Uni- and Bi-Directional Versions Available

**Excellent Clamping Capability** 

Fast Response Time

Plastic Case Material has UL Flammability

Classification Rating 94V-0

#### **MECHANICAL DATA**

Case: SMC, Transfer Molded Epoxy

Terminals: Solderable per MIL-STD-202, Method 208

Also Available in Lead Free Plating (Matte Tin

Finish). Please see Ordering Information,

Note 5, on Page 4

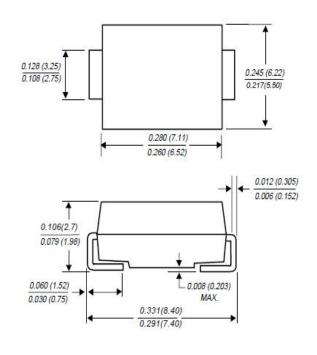
Polarity Indicator: Cathode Band

(Note: Bi-directional devices have no polarity indicator.)

Marking: Part NO.

Weight: 0.22 grams (approx.)

### SMC(DO-214AB)



#### **Dimensions in inches and (millimeters)**

### **MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power Dissipation (Non repetitive current pulse derated above TA = $25^{\circ}$ C) (Note 1)	РРК	1500	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) (Notes 1, 2, & 3)	IFSM	200	А
Steady State Power Dissipation @ T <sub>L</sub> = 75 °C	PM (AV)	5.0	W
Instantaneous Forward Voltage @ IPP = 100A (Notes 1, 2, & 3)	V <sub>F</sub>	3.5	V
Operating Temperature Range	TJ	-55 to + 150	$^{\circ}$
Storage Temperature Range	Тѕтс	-55 to + 175	$^{\circ}$

- 1- Valid provided that terminals are kept at ambient temperature
- 2- Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum
- 3- Unidirectional units only

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### RATINGS AND CHARACTERISTIC CURVES SMCJ SERIES

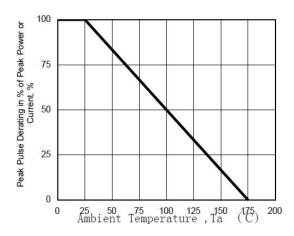


Fig. 1 - Pulse Derating Curve

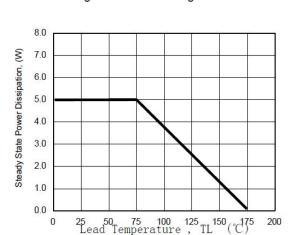


Fig. 3 - Steady State Power Derating Curve

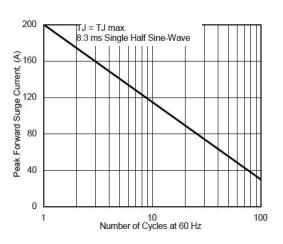


Fig. 2 - Maximum Non-Repetitive
Surge Current

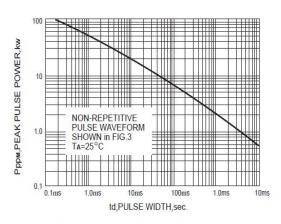
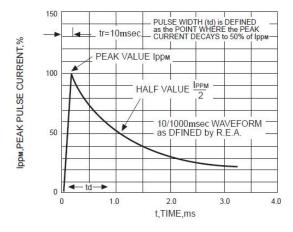


Fig. 4 - Peak Pulse Power Rating Curve



Note: Specifications are subject to change without notice.

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### **ELECTRICAL CHARACTERISTICS**

Part Number	Part Number	Marl	ice king	Reverse Stand off Voltage	Break Volt VBR (V	age Volts)	Test Current	Maximum Clamping Voltage	Maximum Peak Pulse Current	Maximum Reverse Leakage
(Uni)	(Bi)			$V_R$	@		I <sub>T</sub> (mA)	V <sub>C</sub> @ I <sub>PP</sub> (Volts)	$I_{PP}$	$I_R @ V_R$ $( \mu A)$
		UNI	BI	(Volts)	MIN	MAX		100 110 100	(A)	88 11111 11120
SMCJ5.0A		GDE	200000000000000000000000000000000000000	5	6.4	7	10	9.2	163	800
SMCJ6.0A		GDG	discount and a	3300	6.67	7.37	10	10.3	145.7	800
SMCJ6.5A		GDK	.0.0.0.00	6.5	7.22	7.98	10	11.2	134	500
SMCJ7.0A		GDM		7	7.78	8.6	10	12	125	200
SMCJ7.5A			BDP	7.5	8.33	9.21	1	12.9	116.3	100
SMCJ8.0A		GDR		8	8.89	9.83	1	13.6	110.3	50
SMCJ8.5A			BDT	8.5	9.44	10.4	1	14.4	104.2	20
SMCJ9.0A		GDV		9	10	11.1	1	15.4	97.4	10
SMCJ10A	SMCJ10CA	GDX		10	11.1	12.3	1	17	88.3	5
SMCJ11A	SMCJ11CA	GDZ	BDZ	11	12.2	13.5	1	18.2	82.5	5
SMCJ12A	SMCJ12CA	GEE	BEE	12	13.3	14.7	1	19.9	75.4	5
SMCJ13A	SMCJ13CA	GEG	BEG	13	14.4	15.9	1	21.5	69.8	5
SMCJ14A	SMCJ14CA	GEK	BEK	14	15.6	17.2	1	23.2	64.7	5
SMCJ15A	SMCJ15CA	<b>GEM</b>	BEM	15	16.7	18.5	1	24.4	61.5	5
SMCJ16A	SMCJ16CA	GEP	BEP	16	17.8	19.7	1	26	57.7	5
SMCJ17A	SMCJ17CA	GER	BER	17	18.9	20.9	1	27.6	54.4	5
SMCJ18A	SMCJ18CA	GET	BET	18	20	22.1	1	29.2	51.4	5
SMCJ20A	SMCJ20CA	GEV	BEV	20	22.2	24.5	1	32.4	46.3	5
SMCJ22A	SMCJ22CA	GEX	BEX	22	24.4	26.9	1	35.5	42.3	5
SMCJ24A	SMCJ24CA	GEZ	BEZ	24	26.7	29.5	1	38.9	38.6	5
SMCJ26A	SMCJ26CA	GFE	BFE	26	28.9	31.9	1	42.1	35.7	5
SMCJ28A	SMCJ28CA	GFG	BFG	28	31.1	34.4	1	45.4	33.1	5
SMCJ30A	SMCJ30CA	GFK	BFK	30	33.3	36.8	1	48.4	31	5
SMCJ33A	SMCJ33CA	GFM	BFM	33	36.7	40.6	1	53.3	28.2	5
SMCJ36A	SMCJ36CA	GFP	BFP	36	40	44.2	1	58.1	25.9	5
SMCJ40A	SMCJ40CA	GFR	BFR	40	44.4	49.1	1	64.5	23.3	5
SMCJ43A	SMCJ43CA	GFT	BFT	43	47.8	52.8	1	69.4	21.7	5
SMCJ45A	SMCJ45CA	GFV	BFV	45	50	55.3	1	72.7	20.6	5
SMCJ48A	SMCJ48CA	GFX	BFX	48	53.3	58.9	1	77.4	19.4	5
DESCRIPTION NOT AND ADDRESS.		GFZ	11 11 C 11 11 11 11 11 11 11 11 11 11 11	51	56.7		1	82.4	18.2	5
SMCJ54A	SMCJ54CA	GGE		54	60	66.3	1	87.1	17.3	5
SMCJ58A	STATE OF THE STATE	GGG	PER 2017 PAR 2017	58	64.4	71.2	1	93.6	16.1	5
SMCJ60A	SMCJ60CA	GGK		60	66.7	73.7	1	96.8	15.5	5
SMCJ64A	SMCJ64CA		BGM	30000	71.1	78.6	1	103	14.6	5
SMCJ70A	SMCJ70CA		BGP	70	77.8	86	1	113	13.3	5
SMCJ75A	SMCJ75CA	GGR		75	83.3	92.1	1	121	12.4	5

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### **ELECTRICAL CHARACTERISTICS**

Part Number (Uni)	Part Number (Bi)	Mar Co	rice king ode BI	Reverse Stand off Voltage V <sub>R</sub> (Volts)	Break Volt VBR (V @	age	Test Current I <sub>T</sub> (mA)	Maximum Clamping Voltage V <sub>C</sub> @ I <sub>PP</sub> (Volts)	Maximum Peak Pulse Current I <sub>PP</sub> (A)	Maximum Reverse Leakage I <sub>R</sub> @ V <sub>R</sub> (μA)
SMCJ78A	SMCJ78CA	GGT		78	86.7	95.8	1	126	11.9	5
SMCJ85A	SMCJ85CA	GGV	BGV	85	94.4	104	1	137	11	5
SMCJ90A	SMCJ90CA	GGX	BGX	90	100	111	1	146	10.3	5
SMCJ100A	SMCJ100CA	GGZ	BGZ	100	111	123	1	162	9.3	5
SMCJ110A	SMCJ110CA	GHE	BHE	110	122	135	1	177	8.5	5
SMCJ120A	SMCJ120CA	GHG	BHG	120	133	147	1	193	7.8	5
SMCJ130A	SMCJ130CA	GHK	BHK	130	144	159	1	209	7.2	5
SMCJ150A	SMCJ150CA	GHM	BHM	150	167	185	1	243	6.2	5
SMCJ160A	SMCJ160CA	GHP	BHP	160	178	197	1	259	5.8	5
SMCJ170A	SMCJ170CA	GHR	BHR	170	189	209	1	275	5.5	5
SMCJ180A	SMCJ180CA	GHT	BHT	180	201	222	1	292	5.1	5
SMCJ200A	SMCJ200CA	GHV	BHV	200	224	247	1	324	4.6	5
SMCJ220A	SMCJ220CA	GHX	BHX	220	246	272	1	356	4.2	5
SMCJ250A	SMCJ250CA	GHZ	BHZ	250	279	309	1	405	3.7	5
SMCJ300A	SMCJ300CA	GJE	BJE	300	335	371	1	486	3.1	5
SMCJ350A	SMCJ350CA	GJG	BJG	350	391	432	1	567	2.6	5
SMCJ400A	SMCJ400CA	GJK	ВЈК	400	447	494	1	648	2.3	5
SMCJ440A	SMCJ440CA	GJM	ВЛМ	440	492	543	1	713	2.1	5

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