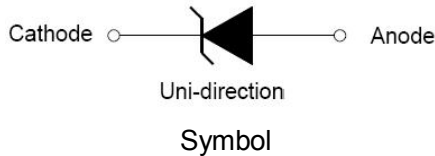
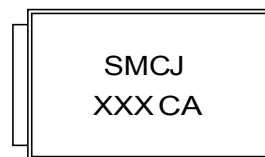
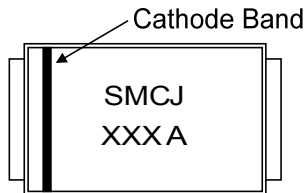


**SMC**

**Features**

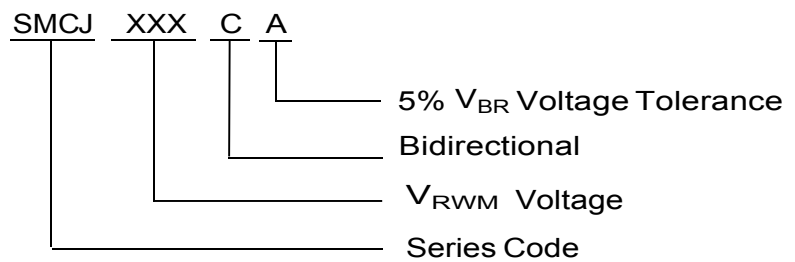
- Peak power dissipation 1500W@10 x 1000 us Pulse
- Low incremental surge resistance
- Excellent clamping capability
- Glass passivated junction
- Fast response time
- Low leakage current
- Halogen free and RoHS compliant

**Mechanical Data**

- CASE: SMCJ(DO-214AB) Molded Plastic
- Polarity: By cathode band denotes uni-directional device, none cathode band denotes bi-directional device
- Mounting Position:Any

**Making Code & information**


Package	Packing Description	Packing Quantity
SMC	Tape/Reel,13" reel	3000


**Maximum Ratings & Thermal Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Units	Remarks
Peak Pulse Power Dissipation	$P_{PPM}$	1500	W	(Note1)(Note2)
Steady State Power Dissipation	$P_D$	6.5	W	(Note3)
Peak Forward Surge Current	$I_{FSM}$	200	A	(Note4)
Maximum Instantaneous Forward Voltage at 100A	$V_{FM}$	3.5/5	V	(Note5)
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	15	°C/W	
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	75	°C/W	
Operating Temperature Range	$T_J$	-55 to 150	°C	
Storage Temperature Range	$T_{STG}$	-55 to 150	°C	

Notes1: Non-repetitive current pulse , 10/1000us Waveform.

Notes2: Mounted on copper pad area of 8×8mm to each terminal.

Notes3: Infinite HeatSink at  $T_A=50^\circ\text{C}$

Notes4: Measured on 8.3ms single half sine wave or equivalent square wave, duty cycle=4 perminute maximum.

Notes5: For UnidirectionalOnly,  $V_{FM}<3.5\text{V}$  for  $V_{BR} \leq 200\text{V}$  and  $V_{FM}<5.0\text{V}$  for  $V_{BR} \geq 201\text{V}$ .

## Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified).

Part Number (Uni)	Part Number (Bi)	Reverse Stand off Voltage $V_R$ (V)	Breakdown Voltage $V_{BR}$ @ $I_T$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage $V_C @ I_{PP}$ (V)	Maximum Peak Pulse Current $I_{PP}$ (A)	Maximum Reverse Leakage $I_R @ V_R$ ( $\mu$ A)
			Min	Max				
SMCJ5.0A	SMCJ5.0CA	5	6.4	7	10	9.2	163	500
SMCJ6.0A	SMCJ6.0CA	6	6.67	7.37	10	10.3	145.7	500
SMCJ6.5A	SMCJ6.5CA	6.5	7.22	7.98	10	11.2	134	300
SMCJ7.0A	SMCJ7.0CA	7	7.78	8.6	10	12	125	200
SMCJ7.5A	SMCJ7.5CA	7.5	8.33	9.21	1	12.9	116.3	100
SMCJ8.0A	SMCJ8.0CA	8	8.89	9.83	1	13.6	110.3	50
SMCJ8.5A	SMCJ8.5CA	8.5	9.44	10.4	1	14.4	104.2	20
SMCJ9.0A	SMCJ9.0CA	9	10	11.1	1	15.4	97.4	10
SMCJ10A	SMCJ10CA	10	11.1	12.3	1	17	88.3	5
SMCJ11A	SMCJ11CA	11	12.2	13.5	1	18.2	82.5	1
SMCJ12A	SMCJ12CA	12	13.3	14.7	1	19.9	75.4	1
SMCJ13A	SMCJ13CA	13	14.4	15.9	1	21.5	69.8	1
SMCJ14A	SMCJ14CA	14	15.6	17.2	1	23.2	64.7	1
SMCJ15A	SMCJ15CA	15	16.7	18.5	1	24.4	61.5	1
SMCJ16A	SMCJ16CA	16	17.8	19.7	1	26	57.7	1
SMCJ17A	SMCJ17CA	17	18.9	20.9	1	27.6	54.4	1
SMCJ18A	SMCJ18CA	18	20	22.1	1	29.2	51.4	1
SMCJ20A	SMCJ20CA	20	22.2	24.5	1	32.4	46.3	1
SMCJ22A	SMCJ22CA	22	24.4	26.9	1	35.5	42.3	1
SMCJ24A	SMCJ24CA	24	26.7	29.5	1	38.9	38.6	1
SMCJ26A	SMCJ26CA	26	28.9	31.9	1	42.1	35.7	1
SMCJ28A	SMCJ28CA	28	31.1	34.4	1	45.4	33.1	1
SMCJ30A	SMCJ30CA	30	33.3	36.8	1	48.4	31	1
SMCJ33A	SMCJ33CA	33	36.7	40.6	1	53.3	28.2	1
SMCJ36A	SMCJ36CA	36	40	44.2	1	58.1	25.9	1
SMCJ40A	SMCJ40CA	40	44.4	49.1	1	64.5	23.3	1
SMCJ43A	SMCJ43CA	43	47.8	52.8	1	69.4	21.7	1
SMCJ45A	SMCJ45CA	45	50	55.3	1	72.7	20.6	1
SMCJ48A	SMCJ48CA	48	53.3	58.9	1	77.4	19.4	1
SMCJ51A	SMCJ51CA	51	56.7	62.7	1	82.4	18.2	1
SMCJ54A	SMCJ54CA	54	60	66.3	1	87.1	17.3	1
SMCJ58A	SMCJ58CA	58	64.4	71.2	1	93.6	16.1	1
SMCJ60A	SMCJ60CA	60	66.7	73.7	1	96.8	15.5	1
SMCJ64A	SMCJ64CA	64	71.1	78.6	1	103	14.6	1
SMCJ70A	SMCJ70CA	70	77.8	86	1	113	13.3	1
SMCJ75A	SMCJ75CA	75	83.3	92.1	1	121	12.4	1
SMCJ78A	SMCJ78CA	78	86.7	95.8	1	126	11.9	1
SMCJ85A	SMCJ85CA	85	94.4	104	1	137	11	1
SMCJ90A	SMCJ90CA	90	100	111	1	146	10.3	1
SMCJ100A	SMCJ100CA	100	111	123	1	162	9.3	1
SMCJ110A	SMCJ110CA	110	122	135	1	177	8.5	1
SMCJ120A	SMCJ120CA	120	133	147	1	193	7.8	1
SMCJ130A	SMCJ130CA	130	144	159	1	209	7.2	1
SMCJ150A	SMCJ150CA	150	167	185	1	243	6.2	1
SMCJ160A	SMCJ160CA	160	178	197	1	259	5.8	1
SMCJ170A	SMCJ170CA	170	189	209	1	275	5.5	1
SMCJ180A	SMCJ180CA	180	201	222	1	292	5.1	1
SMCJ200A	SMCJ200CA	200	224	247	1	324	4.6	1
SMCJ220A	SMCJ220CA	220	246	272	1	356	4.2	1
SMCJ250A	SMCJ250CA	250	279	309	1	405	3.7	1
SMCJ300A	SMCJ300CA	300	335	371	1	486	3.1	1
SMCJ350A	SMCJ350CA	350	391	432	1	567	2.6	1
SMCJ400A	SMCJ400CA	400	447	494	1	648	2.3	1
SMCJ440A	SMCJ440CA	440	492	543	1	713	2.1	1

## Ratings and Characteristic Curves

(Ratings at 25°C ambient temperature unless otherwise specified).

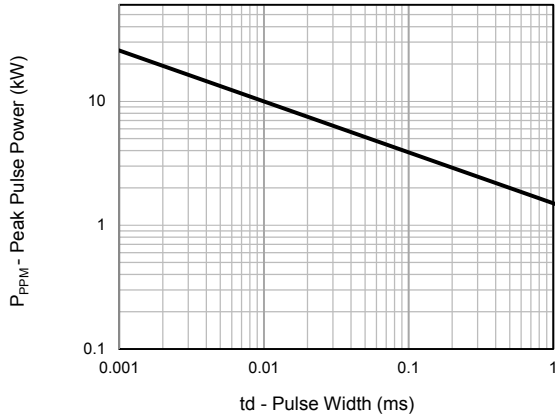


Fig.1 - Peak Pulse Power Rating

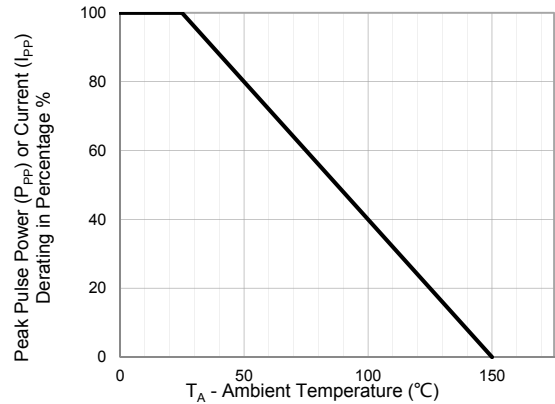


Fig.2 - Pulse Derating Curve

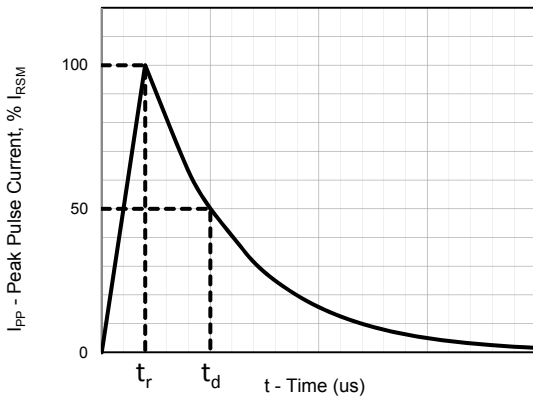


Fig.3 - Pulse Waveform

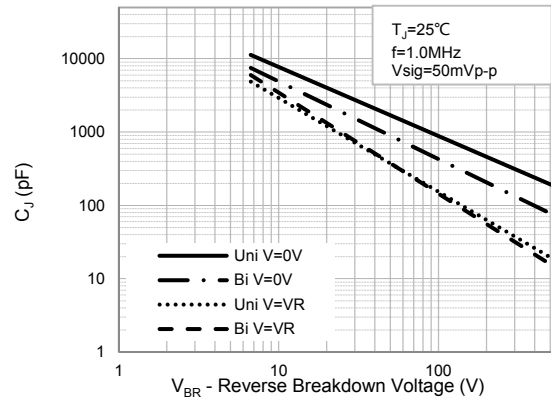


Fig.4 - Typical Junction Capacitance

## Package Outline Dimensions: SMC(DO-214AB)

Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	6.75	6.95	0.265	0.274
D	5.75	5.95	0.226	0.234
D1	2.9	3.1	0.114	0.122
T	7.9	8.1	0.311	0.319
T1	0.85	1.3	0.034	0.051
d	-	0.2	-	0.008
H	2.45	2.65	0.096	0.104
H1	2.3	2.5	0.09	0.098