

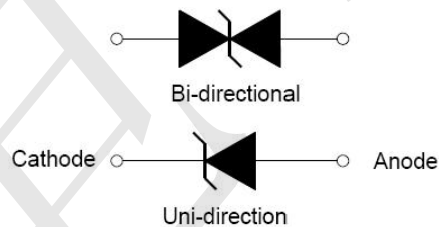
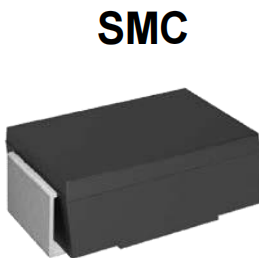
Features

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

Applications

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

Dimensions and Pin Configuration



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	

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

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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 (μA)
			Min	Max				
TPSMCJ5.0A	TPSMCJ5.0CA	5	6.4	7	10	9.2	163	500
TPSMCJ6.0A	TPSMCJ6.0CA	6	6.67	7.37	10	10.3	145.7	500
TPSMCJ6.5A	TPSMCJ6.5CA	6.5	7.22	7.98	10	11.2	134	300
TPSMCJ7.0A	TPSMCJ7.0CA	7	7.78	8.6	10	12	125	200
TPSMCJ7.5A	TPSMCJ7.5CA	7.5	8.33	9.21	1	12.9	116.3	100
TPSMCJ8.0A	TPSMCJ8.0CA	8	8.89	9.83	1	13.6	110.3	50
TPSMCJ8.5A	TPSMCJ8.5CA	8.5	9.44	10.4	1	14.4	104.2	20
TPSMCJ9.0A	TPSMCJ9.0CA	9	10	11.1	1	15.4	97.4	10
TPSMCJ10A	TPSMCJ10CA	10	11.1	12.3	1	17	88.3	5
TPSMCJ11A	TPSMCJ11CA	11	12.2	13.5	1	18.2	82.5	1
TPSMCJ12A	TPSMCJ12CA	12	13.3	14.7	1	19.9	75.4	1
TPSMCJ13A	TPSMCJ13CA	13	14.4	15.9	1	21.5	69.8	1
TPSMCJ14A	TPSMCJ14CA	14	15.6	17.2	1	23.2	64.7	1
TPSMCJ15A	TPSMCJ15CA	15	16.7	18.5	1	24.4	61.5	1
TPSMCJ16A	TPSMCJ16CA	16	17.8	19.7	1	26	57.7	1
TPSMCJ17A	TPSMCJ17CA	17	18.9	20.9	1	27.6	54.4	1
TPSMCJ18A	TPSMCJ18CA	18	20	22.1	1	29.2	51.4	1
TPSMCJ20A	TPSMCJ20CA	20	22.2	24.5	1	32.4	46.3	1
TPSMCJ22A	TPSMCJ22CA	22	24.4	26.9	1	35.5	42.3	1
TPSMCJ24A	TPSMCJ24CA	24	26.7	29.5	1	38.9	38.6	1
TPSMCJ26A	TPSMCJ26CA	26	28.9	31.9	1	42.1	35.7	1
TPSMCJ28A	TPSMCJ28CA	28	31.1	34.4	1	45.4	33.1	1
TPSMCJ30A	TPSMCJ30CA	30	33.3	36.8	1	48.4	31	1
TPSMCJ33A	TPSMCJ33CA	33	36.7	40.6	1	53.3	28.2	1
TPSMCJ36A	TPSMCJ36CA	36	40	44.2	1	58.1	25.9	1
TPSMCJ40A	TPSMCJ40CA	40	44.4	49.1	1	64.5	23.3	1
TPSMCJ43A	TPSMCJ43CA	43	47.8	52.8	1	69.4	21.7	1
TPSMCJ45A	TPSMCJ45CA	45	50	55.3	1	72.7	20.6	1
TPSMCJ48A	TPSMCJ48CA	48	53.3	58.9	1	77.4	19.4	1
TPSMCJ51A	TPSMCJ51CA	51	56.7	62.7	1	82.4	18.2	1
TPSMCJ54A	TPSMCJ54CA	54	60	66.3	1	87.1	17.3	1
TPSMCJ58A	TPSMCJ58CA	58	64.4	71.2	1	93.6	16.1	1
TPSMCJ60A	TPSMCJ60CA	60	66.7	73.7	1	96.8	15.5	1
TPSMCJ64A	TPSMCJ64CA	64	71.1	78.6	1	103	14.6	1
TPSMCJ70A	TPSMCJ70CA	70	77.8	86	1	113	13.3	1
TPSMCJ75A	TPSMCJ75CA	75	83.3	92.1	1	121	12.4	1
TPSMCJ78A	TPSMCJ78CA	78	86.7	95.8	1	126	11.9	1
TPSMCJ85A	TPSMCJ85CA	85	94.4	104	1	137	11	1
TPSMCJ90A	TPSMCJ90CA	90	100	111	1	146	10.3	1
TPSMCJ100A	TPSMCJ100CA	100	111	123	1	162	9.3	1
TPSMCJ110A	TPSMCJ110CA	110	122	135	1	177	8.5	1
TPSMCJ120A	TPSMCJ120CA	120	133	147	1	193	7.8	1
TPSMCJ130A	TPSMCJ130CA	130	144	159	1	209	7.2	1
TPSMCJ150A	TPSMCJ150CA	150	167	185	1	243	6.2	1
TPSMCJ160A	TPSMCJ160CA	160	178	197	1	259	5.8	1
TPSMCJ170A	TPSMCJ170CA	170	189	209	1	275	5.5	1
TPSMCJ180A	TPSMCJ180CA	180	201	222	1	292	5.1	1
TPSMCJ200A	TPSMCJ200CA	200	224	247	1	324	4.6	1
TPSMCJ220A	TPSMCJ220CA	220	246	272	1	356	4.2	1
TPSMCJ250A	TPSMCJ250CA	250	279	309	1	405	3.7	1
TPSMCJ300A	TPSMCJ300CA	300	335	371	1	486	3.1	1
TPSMCJ350A	TPSMCJ350CA	350	391	432	1	567	2.6	1
TPSMCJ400A	TPSMCJ400CA	400	447	494	1	648	2.3	1
TPSMCJ440A	TPSMCJ440CA	440	492	543	1	713	2.1	1

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

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

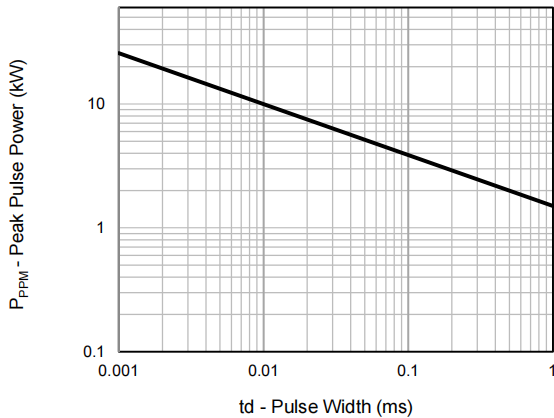


Fig.1 - Peak Pulse Power Rating

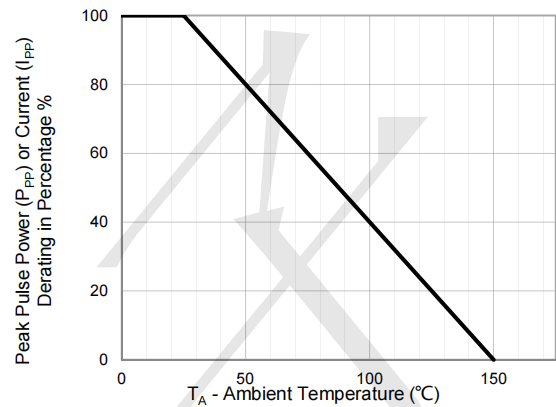


Fig.2 - Pulse Derating Curve

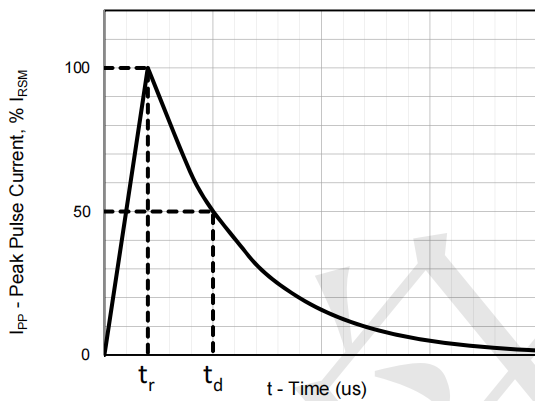


Fig.3 - Pulse Waveform

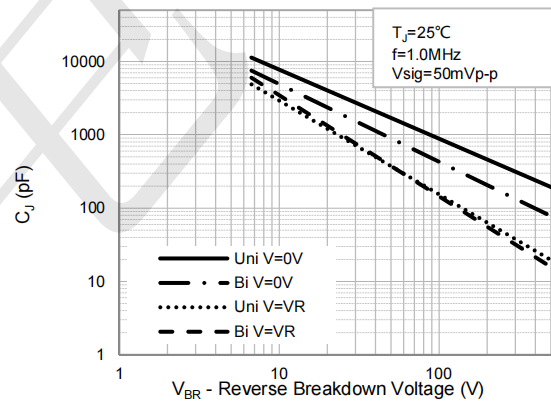


Fig.4 - Typical Junction Capacitance

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	1.0	1.4	0.039	0.055
d	-	0.2	-	0.008
H	2.45	2.65	0.096	0.104
H1	2.3	2.5	0.09	0.098