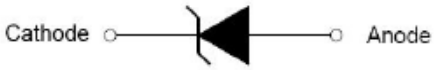
SMC



Symbol

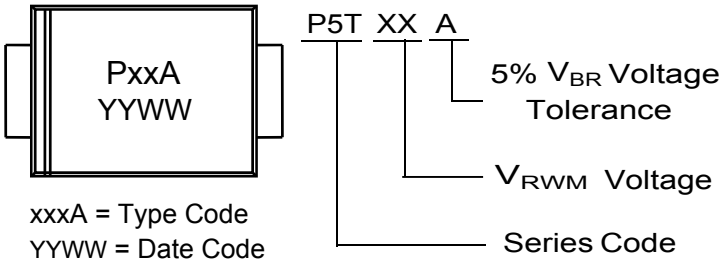
Features

Peak power disspatiom 4600W@10 x 1000 us Pluse
Low capacitancce
Excellent clamping capability
Glass passivated junction
Fast response time
Low leakage current
Meets AEC-Q101
Halogen free and RoHS compliant

Mechanical Data

CASE: SMCJ(DO-214AB) Molded Plastic
Polarity: By cathode band denites uni-directional decice
Mounting Position:Any

Making Code & information



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

Maximum Ratings & Thermal Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Units	Remarks
Peak Pulse Power Dissipation	P_{PPM}	4600	W	(Note1)
Peak Pulse Power Dissipation	P_{PPM1}	3600	W	(Note2)
Steady State Power Dissipation	P_D	6.5	W	(Note3)
Peak Forward Surge Current	I_{FSM}	300	A	(Note4)
Maximum Instantaneous Forward Voltage at 100A	V_{FM}	5	V	
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	15	℃/W	
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	75	℃/W	
Operating Temperature Range	T_J	-55 to 150	℃	
Storage Temperature Range	T_{STG}	-55 to 150	℃	

Notes1: Non-repetitive current pulse , 10/1000us Waveform.
Notes2: Non-repetitive current pulse , 10/10000us Waveform.
Notes3: Infinite Heat Sink at T_A=50℃.
Notes4: Measured on 8.3ms single half sine wave or equivalent square wave, duty cycle=4 per minute maximum.

Electrical Characteristics

（Ratings at 25℃ ambient temperature unless otherwise specified).

Part Number	Marking Code	Reverse Stand-off Voltage V_R (V)	Breakdown Voltage VBR @ I_T (V)		Test Current I_T (mA)	Maximum Clamping Voltage V_C@ I_{PP} (V)	Maximum Peak Pulse Current I_{PP} (A)	Maximun Reverse Leakage I_R @ V_R (μA)
			Min	Max				
P5T15A	P15A	15	16.7	18.5	1	24.4	185	100
P5T16A	P16A	16	17.8	19.7	1	26	175	50
P5T18A	P18A	18	20	22.1	1	29.2	155	10
P5T20A	P20A	20	22.2	24.5	1	32.4	141	5
P5T22A	P22A	22	24.4	26.9	1	35.5	129	5
P5T24A	P24A	24	26.7	29.5	1	38.9	119	5
P5T26A	P26A	26	28.9	31.9	1	42.1	103	5
P5T30A	P30A	30	33.3	36.8	1	48.4	93.9	5
P5T33A	P33A	33	36.7	40.6	1	53.3	86.1	5
P5T36A	P36A	36	40	44.2	1	58.1	77.6	5
P5T40A	P40A	40	44.4	49.1	1	64.5	71.3	5
P5T43A	P43A	43	47.8	52.8	1	69.4	66.2	5

Ratings and Characteristic Curves

（Ratings at 25℃ ambient temperature unless otherwise specified).

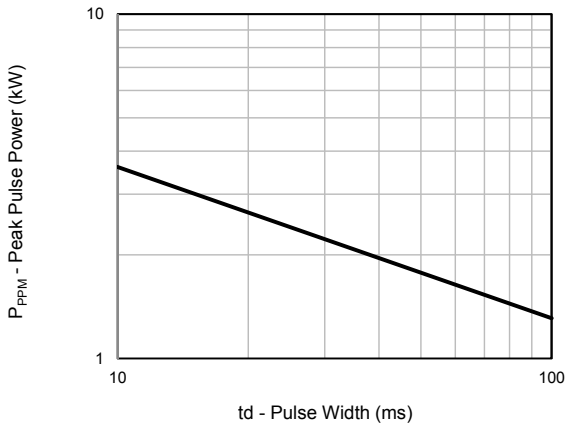


Fig.1 - Peak Pulse Power Rating

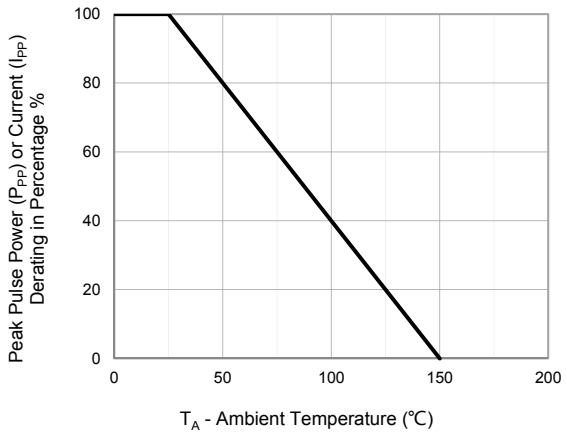


Fig.2 - Pulse Derating Curve

Ratings and Characteristic Curves

（Ratings at 25℃ ambient temperature unless otherwise specified).

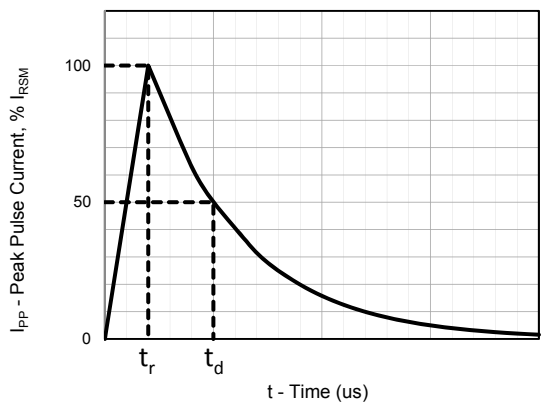


Fig.3 - Pulse Waveform

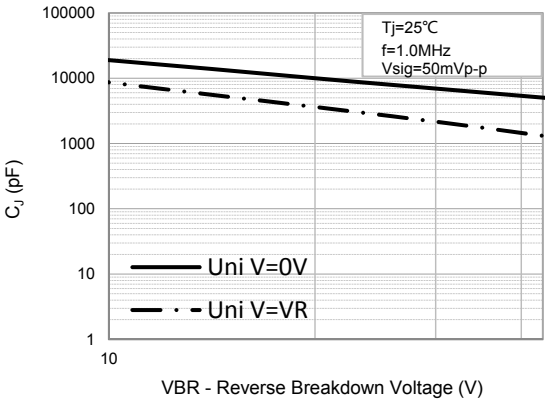


Fig.4 - Typical Junction Capacitance

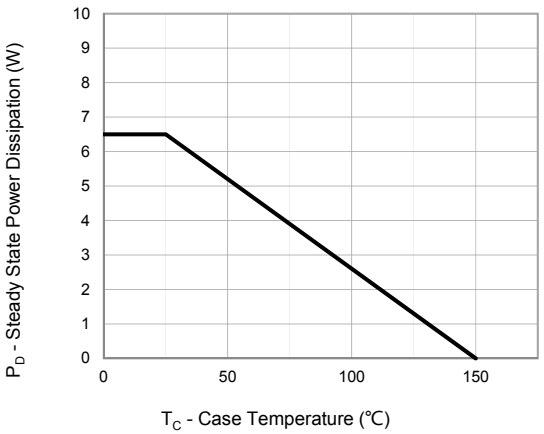


Fig.5 - Steady State Power Dissipation Derating Curve

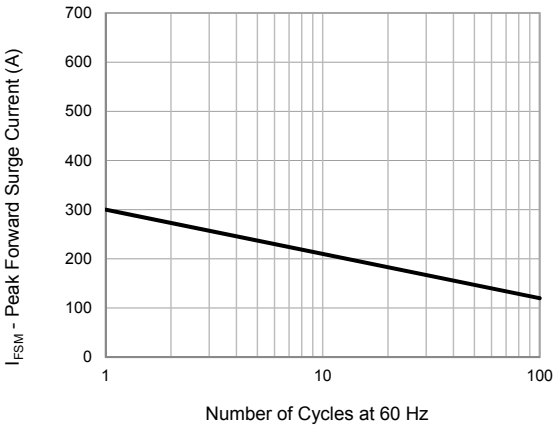
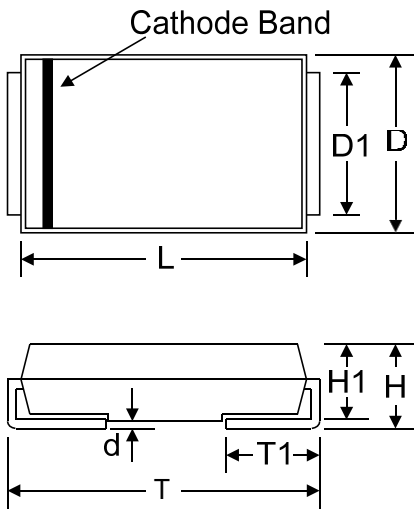


Fig.6 - Maximum Non-Repetitive Peak Forward Surge Current

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