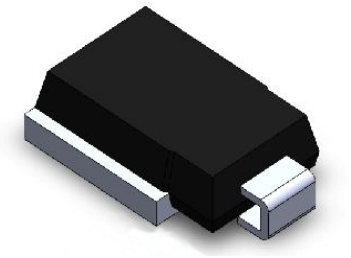
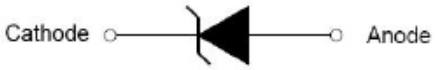
DO-218(AB)





Symbol

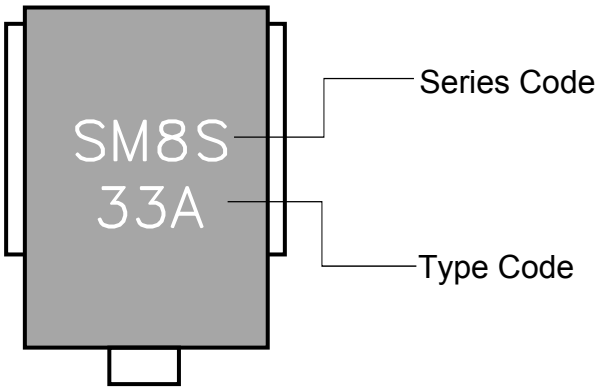
Features

Peak power disspatiom 6600W@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: DO-218(AB) Molded Plastic
Polarity: By cathode band denites uni-directional decice
Mounting Position:Any

Making Code & information



Package	Packing Description	Packing Quantity
DO-218(AB)	Tape/Reel,13" reel	500 750

Maximum Ratings & Thermal Characteristics

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

Parameter	Symbol	Value	Units	Remarks
Peak Pulse Power Dissipation	P_{PPM}	6600	W	(Note1)
Peak Pulse Power Dissipation	P_{PPM1}	5200	W	(Note2)
Steady State Power Dissipation	P_D	8	W	(Note3)
Peak Forward Surge Current	I_{FSM}	700	A	(Note4)
Maximum Instantaneous Forward Voltage at 100A	V_{FM}	3.5	V	
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	0.9	℃/W	
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	11	℃/W	
Operating Temperature Range	T_J	-55 to 175	℃	
Storage Temperature Range	T_{STG}	-55 to 175	℃	

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	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				
SM8S10A	10	11.1	12.3	5	17	388	15
SM8S11A	11	12.2	13.5	5	18.2	363	10
SM8S12A	12	13.3	14.7	5	19.9	332	10
SM8S13A	13	14.4	15.9	5	21.5	307	10
SM8S14A	14	15.6	17.2	5	23.2	284	10
SM8S15A	15	16.7	18.5	5	24.4	270	10
SM8S16A	16	17.8	19.7	5	26	254	10
SM8S17A	17	18.9	20.9	5	27.6	239	10
SM8S18A	18	20	22.1	5	29.2	226	10
SM8S20A	20	22.2	24.5	5	32.4	204	10
SM8S22A	22	24.4	26.9	5	35.5	186	10
SM8S24A	24	26.7	29.5	5	38.9	170	10
SM8S26A	26	28.9	31.9	5	42.1	157	10
SM8S28A	28	31.1	34.4	5	45.4	145	10
SM8S30A	30	33.3	36.8	5	48.4	136	10
SM8S33A	33	36.7	40.6	5	53.3	124	10
SM8S36A	36	40	44.2	5	58.1	114	10
SM8S40A	40	44.4	49.1	5	64.5	102	10
SM8S43A	43	47.8	52.8	5	69.4	95.1	10

Ratings and Characteristic Curves

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

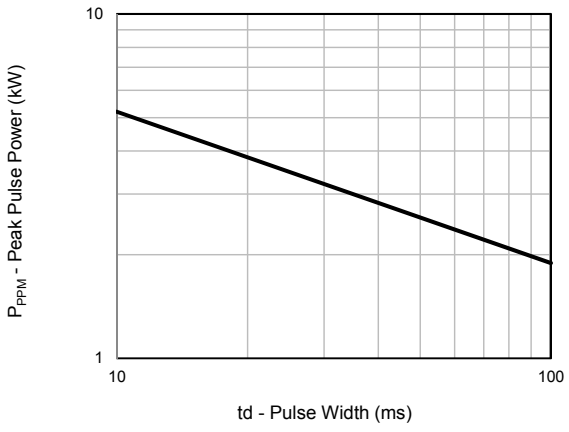


Fig.1 - Peak Pulse Power Rating

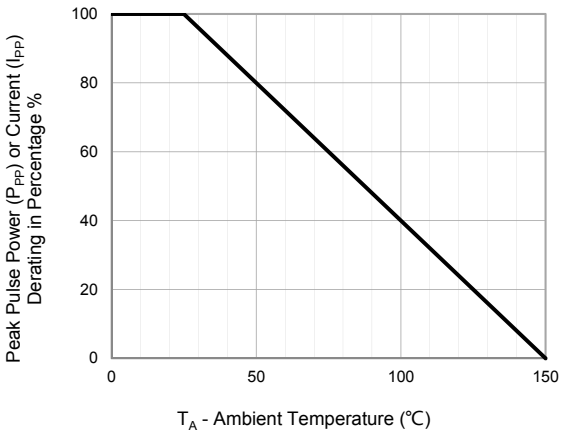


Fig.2 - Pulse Derating Curve

Ratings and Characteristic Curves

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

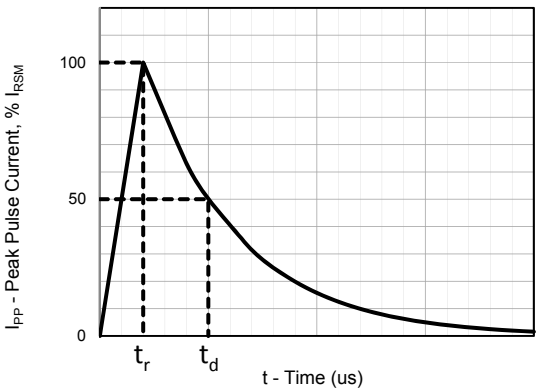


Fig.3 - Pulse Waveform

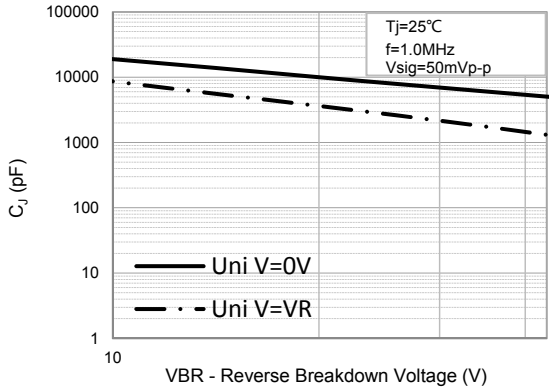


Fig.4 - Typical Junction Capacitance

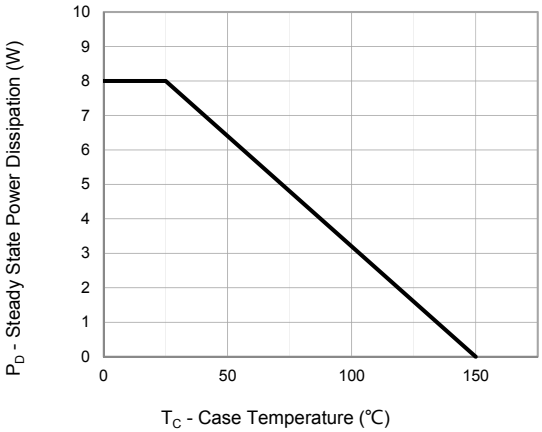


Fig.5 - Steady State Power Dissipation Derating Curve

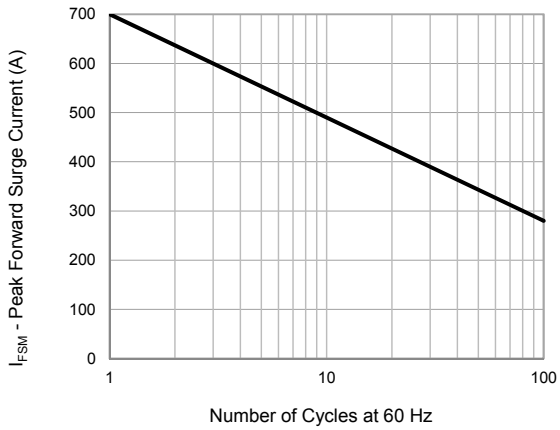
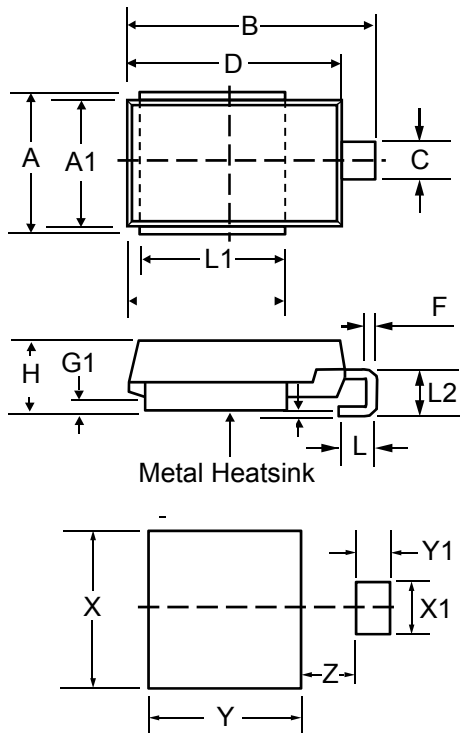


Fig.6 - Maximum Non-Repetitive Peak Forward Surge Current

Package Outline Dimensions: DO-218(AB))



Dimension	Inches			Millimeters		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.374	0.394	0.413	9.5	10	10.5
A1	0.327	0.335	0.343	8.3	8.5	8.7
B	0.591	0.614	0.63	15	15.6	16
C	0.094	0.106	0.118	2.4	2.7	3
D	0.524	0.531	0.539	13.3	13.5	13.7
F	0.02	0.024	0.028	0.5	0.6	0.7
G	-		0.008	-		0.2
G1		0.02			0.5	
H	0.185	0.191	0.197	4.7	4.85	5
L	0.059	0.079	0.098	1.5	2	2.5
L1	0.343	0.354	0.366	8.7	9	9.3
L2	0.098	0.118	0.138	2.5	3	3.5
X		0.394			10	
Y		0.354			9	
Z		0.138			3.5	
X1		0.106			2.7	
Y1		0.079			2	