YENYO

SM8S SERIES

Surface Mount Transient Voltage Suppressor

Working Voltage 10 to 64 V
Peak Pulse Power 6600W

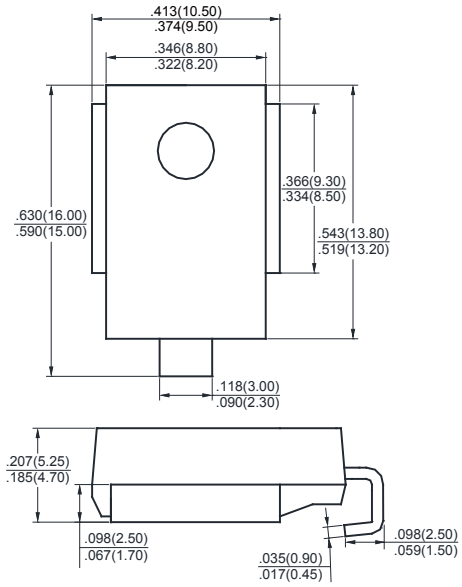
Features

- ✶ 6600W peak pulse power capability at 10/1000μs waveform, repetition rate (duty cycles):0.01%
- ✶ High surge capability
- ✶ Low leakage current
- ✶ Low forward voltage drop
- ✶ Excellent clamping capability
- ✶ Very fast response time
- ✶ Halogen free and RoHS compliant
- ✶ Meets ISO7637-2 surge specification
- ✶ AEC-Q101 qualified

Mechanical Data

- ✶ Case: Molded plastic, DO-218AB
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-750, method 2026
- ✶ Polarity: Heatsink is anode

DO-218AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

T_A = 25℃ unless otherwise noted

PARAMETER	SYMBOL	VALUE	UNIT
Peak power dissipation @10/1000 μs waveform @10/10000 μs waveform	P_{PPM}	 6600 5200	W
Peak forward surge current, 8.3 ms single half sine-wave (Note 1)	I_{FSM}	700	A
Power dissipation on infinite heatsink at T_C=25℃ (Fig.1)	P_D	8.0	W
Maximum instantaneous forward voltage at 100A for unidirectional only	V_F	1.8	V
Operating junction and storage temperature range	T_J , T_{STG}	-55 to +175	℃

NOTES : (1) Measured on 8.3ms single half sine wave or equivalent square wave for unidirectional device only, duty cycle=4 per minute maximum

SM8S SERIES

Electrical Characteristics(T_A=25℃ unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Breakdown Voltage $V_{BR}@I_T$			Maximum Reverse Leakage $I_R@V_{RWM}$ (μA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP} (A)	Maximum Clamping Voltage $V_C@I_{PP}$ (V)
		Min (V)	Max (V)	I_T (mA)				
SM8S10A		11.1	12.3	5	5	10	388	17.0
SM8S11A		12.2	13.5	5	5	11	363	18.2
SM8S12A	SM8S12CA	13.3	14.7	5	5	12	332	19.9
SM8S13A	SM8S13CA	14.4	15.9	5	5	13	307	21.5
SM8S14A	SM8S14CA	15.6	17.2	5	5	14	284	23.2
SM8S15A	SM8S15CA	16.7	18.5	5	5	15	270	24.4
SM8S16A	SM8S16CA	17.8	19.7	5	5	16	253	26.0
SM8S17A	SM8S17CA	18.9	20.9	5	5	17	239	27.6
SM8S18A	SM8S18CA	20.0	22.1	5	5	18	226	29.2
SM8S20A	SM8S20CA	22.2	24.5	5	5	20	204	32.4
SM8S22A	SM8S22CA	24.4	26.9	5	5	22	186	35.5
SM8S24A	SM8S24CA	26.7	29.5	5	5	24	170	38.9
SM8S26A	SM8S26CA	28.9	31.9	5	5	26	157	42.1
SM8S28A	SM8S28CA	31.1	34.4	5	5	28	145	45.4
SM8S30A	SM8S30CA	33.3	36.8	5	5	30	136	48.4
SM8S33A	SM8S33CA	36.7	40.6	5	5	33	124	53.3
SM8S36A	SM8S36CA	40.0	44.2	5	5	36	114	58.1
SM8S40A		44.4	49.1	5	5	40	102	64.5
SM8S43A		47.8	52.8	5	5	43	95.1	69.4
SM8S48A		53.3	58.9	5	5	48	85.3	77.4
SM8S58A		64.4	71.2	5	5	58	70.5	93.6
SM8S64A		71.1	78.6	5	5	64	64.1	103

RATINGS AND CHARACTERISTICS CURVES SM8S SERIES

Fig.1 - Steady State Power Derating Curve

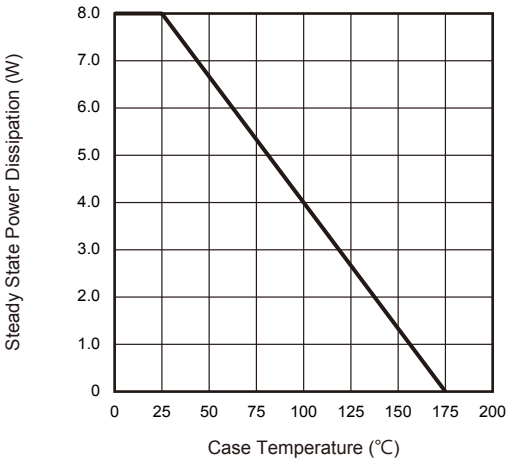


Fig.2 - Load Dump Power Characteristics
(10ms Exponential Waveform)

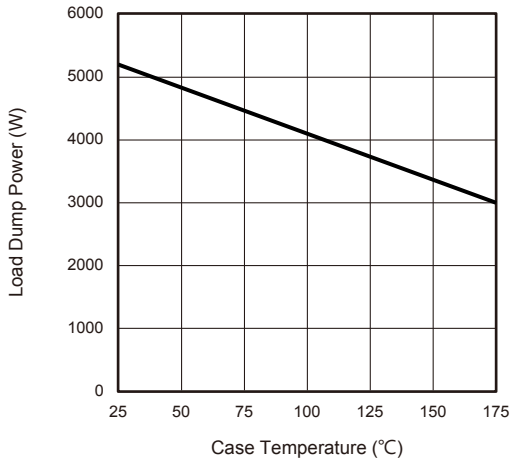


Fig.3 - Pulse Waveform

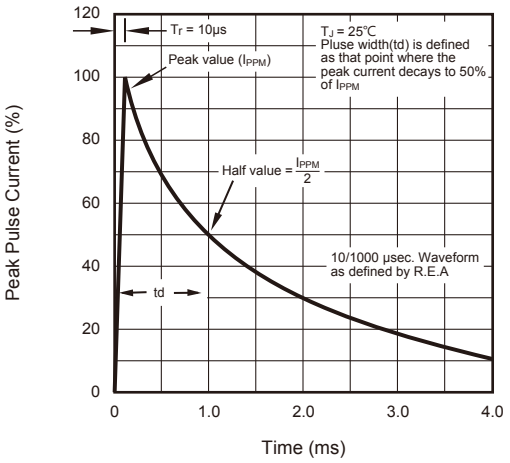


Fig.4 - Peak Pulse Power Rating Curve

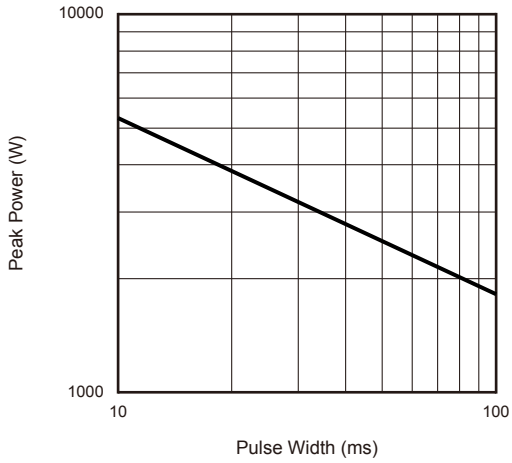


Fig.5 - Typical Junction Capacitance

