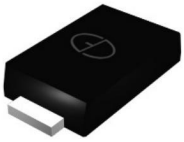
200W,10 - 43V Transient Voltage Suppressors

Features

- Very fast response time
- Glass passivated junction
- Moisture sensitivity: level 1, per J-STD-020
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21 definition
- 200 W peak pulse power capability with a 10/1000 μs waveform

RoHS
COMPLIANT



iSGP (SOD-323HE)

Applications

- SMPS
- Adapters
- Monitor

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Ratings	Unit
Peak power dissipation with a 10/1000us waveform	P_{PPM}	200	W
Peak pulse current with a 10/1000us waveform	I_{PPM}	See Next Table	A
Power dissipation, on infinite heat sink at T_L=75℃	P_D	1	W
Peak forward surge current, 8.3ms single half-sine wave	I_{FSM}	15	A
Typical Thermal Resistance , Junction to Ambient	$R_{\theta JA}$	110	℃/W
Typical Thermal Resistance , Junction to Case	$R_{\theta JC}$	40	℃/W
Typical Thermal Resistance , Junction to Lead	$R_{\theta JL}$	70	℃/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	℃

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number	Marking	Breakdown Voltage VBR (Volts)		Test Current I_T (mA)	Stand off Voltage V_{WM} (Volts)	Maximum reverse leakage at VWM I_D (μA)	Maximum Peak Pulse Current I_{PPM} (A)	Maximum Clamping Voltage at I_{PPM} V_C(Volts)
		Min	Max					
P2TVS10A	2JP	11.1	12.3	1.0	10	5.0	11.8	17.0
P2TVS11A	2KP	12.2	13.5	1.0	11	5.0	11.0	18.2
P2TVS12A	2LP	13.3	14.7	1.0	12	5.0	10.1	19.9
P2TVS13A	2MP	14.4	15.9	1.0	13	5.0	9.3	21.5
P2TVS14A	2NP	15.6	17.2	1.0	14	5.0	8.6	23.2
P2TVS15A	2QP	16.7	18.5	1.0	15	5.0	8.2	24.4
P2TVS16A	2RP	17.8	19.7	1.0	16	5.0	7.7	26.0
P2TVS17A	2SP	18.9	20.9	1.0	17	5.0	7.3	27.6
P2TVS18A	2TP	20.0	22.1	1.0	18	5.0	6.9	29.2
P2TVS20A	2UP	22.2	24.5	1.0	20	5.0	6.2	32.4
P2TVS22A	2VP	24.4	26.9	1.0	22	5.0	5.6	35.5
P2TVS24A	2WP	26.7	29.5	1.0	24	5.0	5.1	38.9
P2TVS26A	2XP	28.9	31.9	1.0	26	5.0	4.8	42.1
P2TVS28A	2YP	31.1	34.4	1.0	28	5.0	4.4	45.4
P2TVS30A	2ZP	33.3	36.8	1.0	30	5.0	4.1	48.4
P2TVS33A	2DR	36.7	40.6	1.0	33	5.0	3.8	53.3
P2TVS36A	2ER	40.0	44.4	1.0	36	5.0	3.4	58.1
P2TVS40A	2FR	44.4	49.1	1.0	40	5.0	3.1	64.5
P2TVS43A	2GR	47.8	52.8	1.0	43	5.0	2.9	69.4

Note：

1. The thermal resistance from junction to ambient, case or lead, mounted on P.C.B with 5×5mm copper pads

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

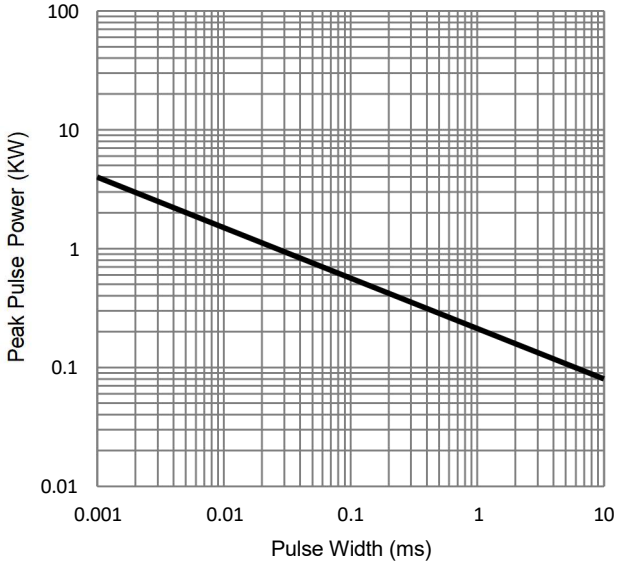


Fig.1 –Peak Pulse Power Derating Curve

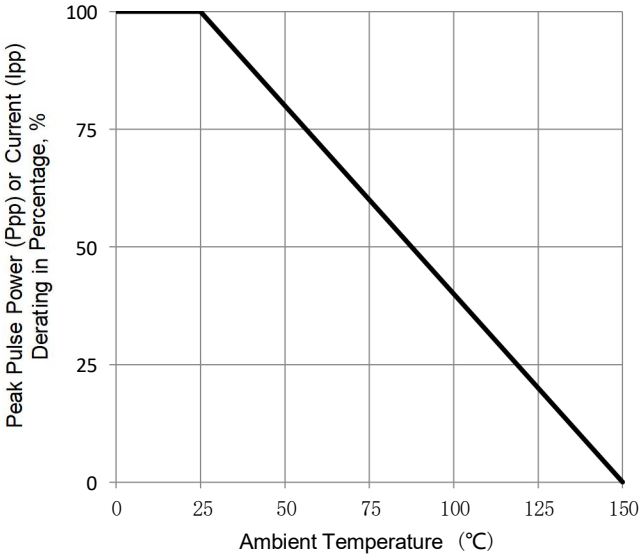


Fig.2 – Pulse Power vs Ambient Temperature

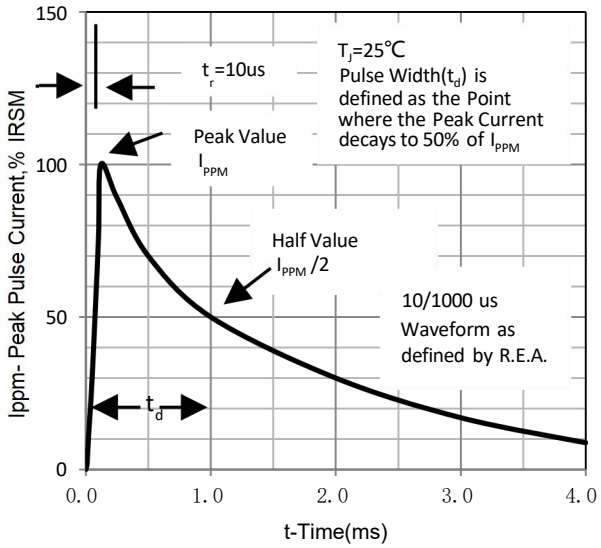


Fig.3 – Pulse Waveform

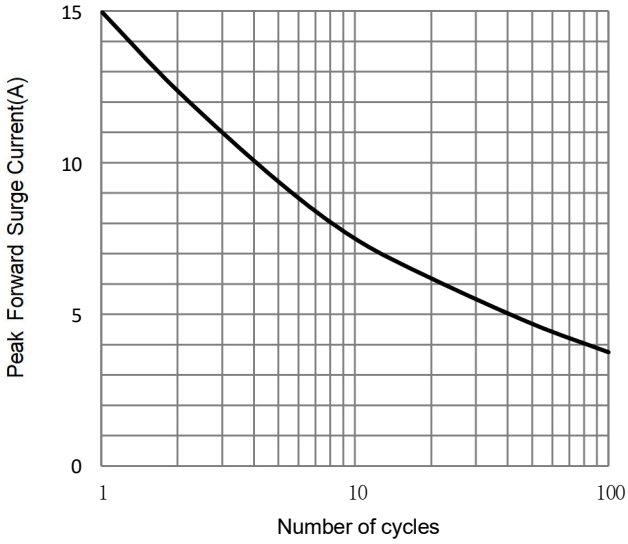
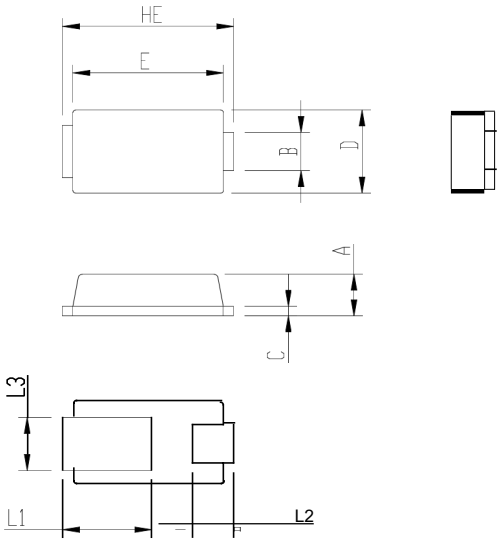


Fig.4 – Maximum Non-Repetitive Surge Current

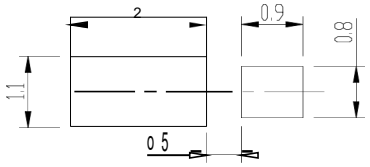
Package Outline Dimensions

in inches (millimeters)

iSGP (SOD-323HE)



iSGP (SOD-323HE)		
	MIN	MAX
A	0.60	0.73
B	0.55	0.75
C	0.10	0.25
D	1.20	1.40
E	2.10	2.30
HE	2.30	2.70
L1	1.10	1.50
L2	0.40	0.75
L3	0.75	1.00



Revision History

Document Version	Date of release	Description of changes
Rev.A	2025.08.15	Released Datasheet

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