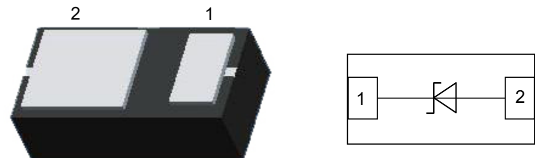
Features

- 1200 Watts peak pulse power (tp = 8/20μs)
- DFN1608-2 package
- Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Normal capacitance (Cj=150pF)
- Meet MSL level1, per J-STD-020,
  LF maximun peak of 260°C
- JESD22-A114-B ESD Voltage:HBM 30KV
- ESD Voltage :MM 0.4KV
- ESD Voltage :CDM 0.5KV
- Protection one data/power line to:
  IEC 61000-4-2 ±30kV contact ±30kV air
  IEC 61000-4-4 (EFT) 40A (5/50ns)
  IEC 61000-4-5 (Lightning) 23A (8/20 μs)



Mechanical Data

- **Case:** DFN1608-2 (plastic package)
  Lead free; RoHS compliant; Halogen free
- **Molding Compound Flammability Rating:**
  UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
  260 °C/10 sec. at terminals

Applications

- Computers and peripherals
- Digital Cameras
- Audio and video equipment
- Cellular handsets and accessories
- Portable electronics
- Power supply protection

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	1200	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	30/30	kV
Peak Pulse Current (t_P = 8/20μS)	I_{PP}	23.0	A
Junction Temperature	T_J	-55 to +125	℃
Storage temperature	T_{STG}	-55 to +150	℃

Electrical Characteristics

(T_A = 25 °C unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				24	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	27	30	36	V
Reverse Leakage Current	I_R	V_R=24V			0.1	uA
Clamping Voltage (IEC 61000-4-5)	V_C	I_{PP}=23A			65	V
Junction Capacitance	C_J	V_R=0V, f=1MHz		150	160	pF

Typical Characteristics (T_{amb} = 25 °C unless otherwise specified)

Fig.1 Peak Pulse Power Rating Curve

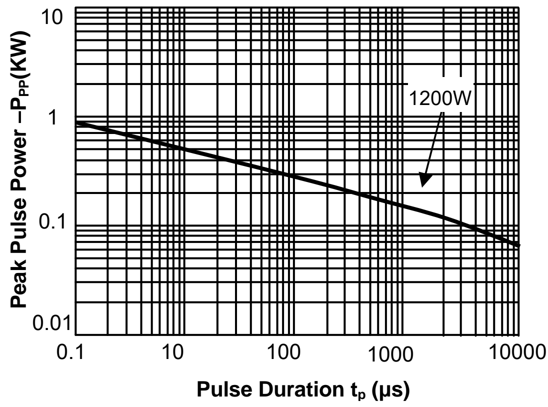


Fig.2 Pulse Derating Curve

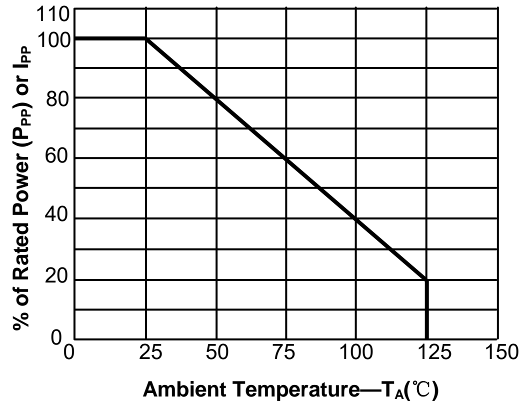


Fig.3 Pulse Waveform-8/20μs

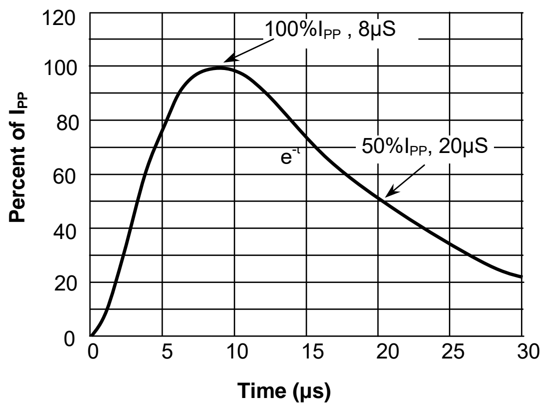
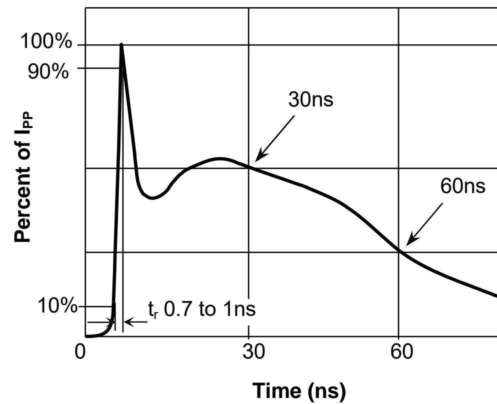
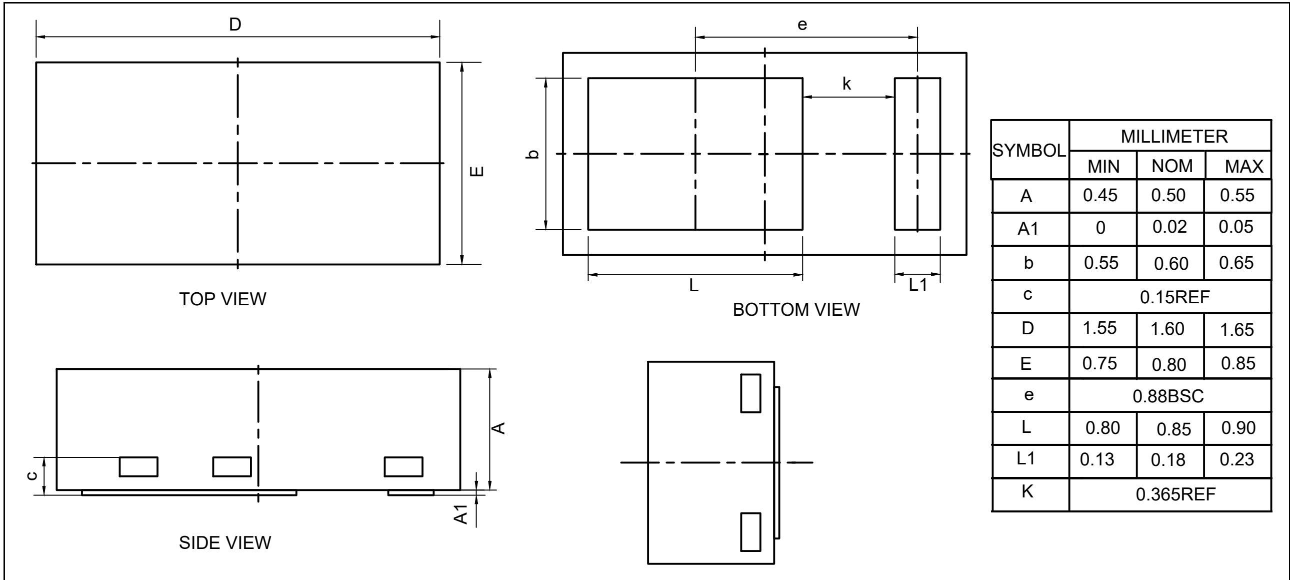


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

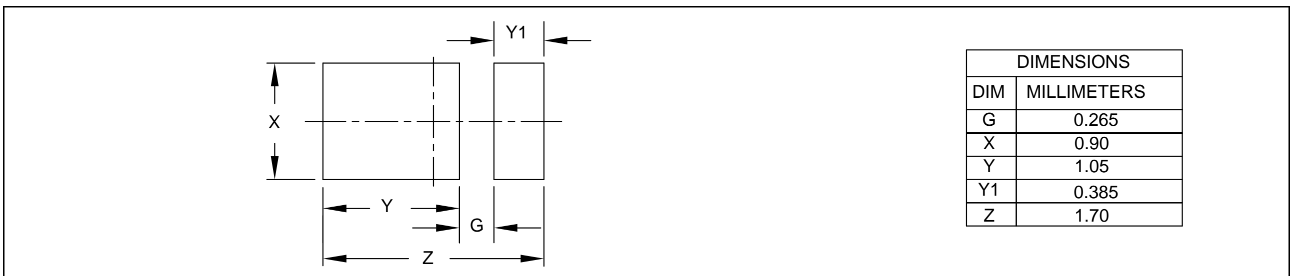


Package Dimensions



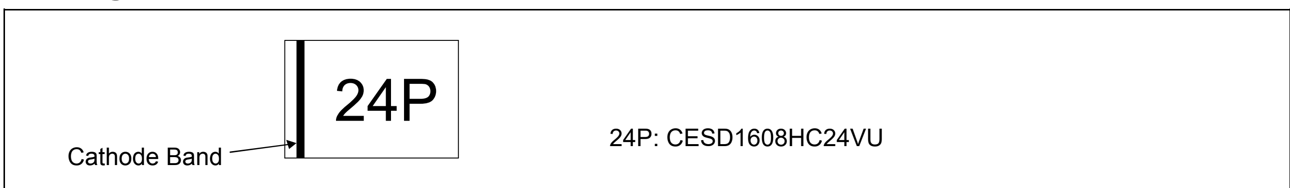
SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.55	0.60	0.65
c	0.15REF		
D	1.55	1.60	1.65
E	0.75	0.80	0.85
e	0.88BSC		
L	0.80	0.85	0.90
L1	0.13	0.18	0.23
K	0.365REF		

Pad Dimensions



DIMENSIONS	
DIM	MILLIMETERS
G	0.265
X	0.90
Y	1.05
Y1	0.385
Z	1.70

Marking

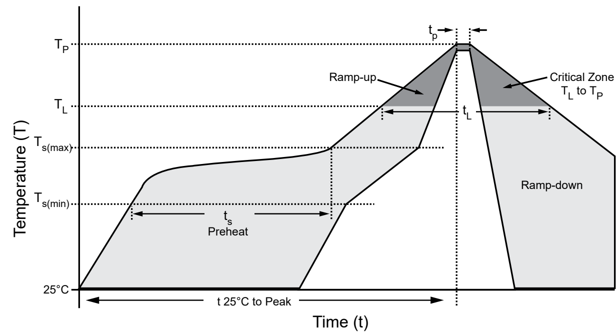


24P: CESD1608HC24VU

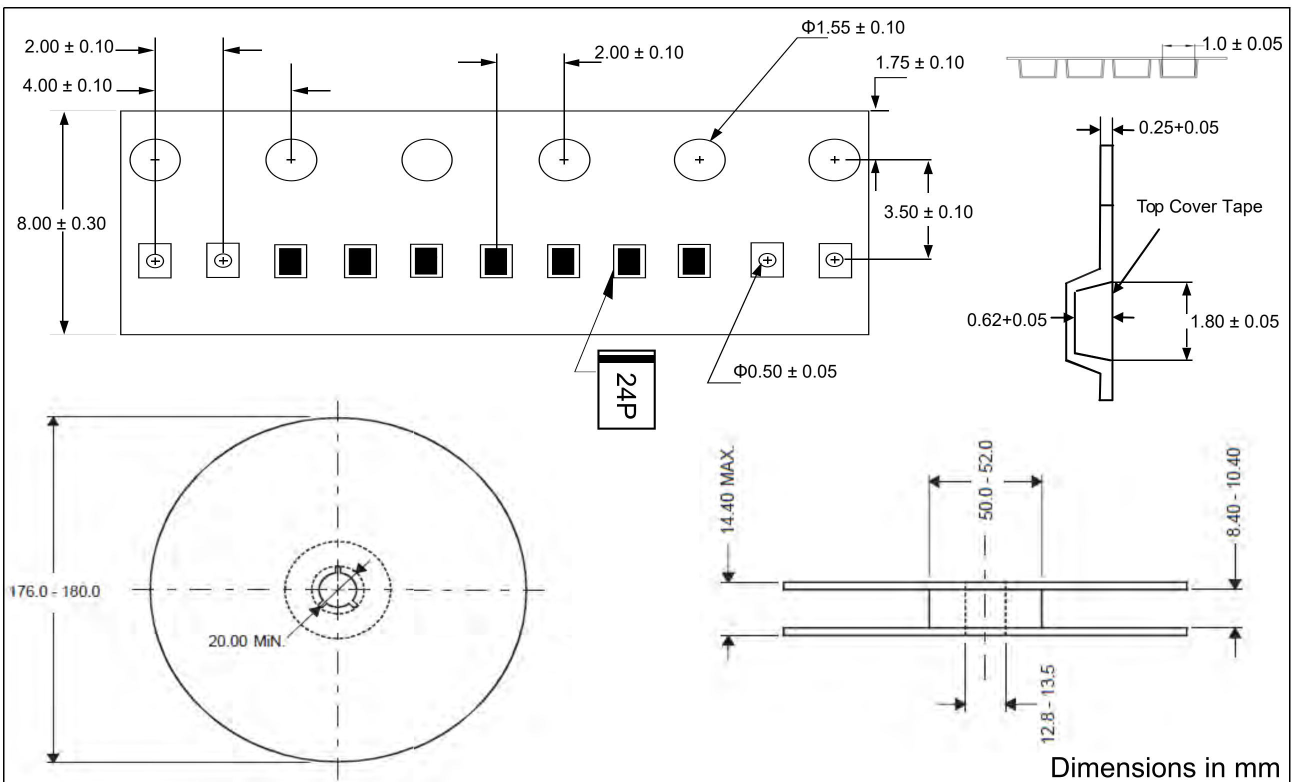
Suggested thermal profile for soldering process

1. Storage environment：Temperature=5~40℃ Humidity=55±25%
2. Reflow soldering of surface-mount device
3. Reflow soldering

Profile Feature	Soldering Condition
Average ramp-up rate(T_L to T_P)	<3℃/sec
Preheat - Temperature Min(Tsmin) - Temperature Max(Tsmax) - Time(min to max)(t_s)	 150℃ 200℃ 60~120sec
Tsmax to T_L - Ramp-up Rate	 <3sec
Time maintained above: - Temperature (T_L) - Time(t_L)	 217℃ 60-260sec
Peak Temperature(T_P)	255 -0/+5℃
Time within 5℃ of actual Peak Temperature(T_P)	10~30sec
Ramp-down Rate	<6℃/sec
Time 25℃ to Peak Temperature	<6minutes



Tape and Reel Specification



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
YED16H22423AV	DFN1608-2	Tape and reel	3000pcs / reel	EIA STD RS-481