



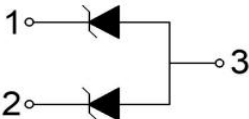
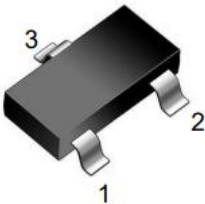
1. Features

- Up to 2 lines protects
- Junction capacitance (Max value: 90pF)
- Peak Pulse current (8/20μs) Max:35A
- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- Low clamping voltage
- Low leakage current
- Working voltages:12V
- RoHS Compliant

2. Mechanical Data

- Case:Molded Plastic,SOT23.
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking:AM2
- Marking:marked on body.

SOT23



3. Maximum Ratings

Electrical Characteristics Rating at 25℃ ambient temperature unless otherwise specified.

| Characteristic                        | Symbol           | Value    | Unit |
|---------------------------------------|------------------|----------|------|
| Peak Pulse Power (tp=8/20μs waveform) | P <sub>PP</sub>  | 1260     | W    |
| Peak Pulse Current (8/20μs)           | I <sub>PP</sub>  | 35       | A    |
| ESD per IEC 61000-4-2 (Air)           | V <sub>ESD</sub> | ±30      | KV   |
| ESD per IEC 61000-4-2 (Contact)       |                  | ±30      |      |
| Junction Temperature                  | T <sub>j</sub>   | -55~+125 | ℃    |
| Storage Temperature                   | T <sub>stg</sub> | -55~+150 | ℃    |

4. Electrical Characteristics (T<sub>A</sub>=25℃ unless otherwise noted)

| Characteristics           | Symbol           | Condition                      | Min  | TYP | Max | Unit |
|---------------------------|------------------|--------------------------------|------|-----|-----|------|
| Reverse Working Voltage   | V <sub>RWM</sub> |                                | -    | -   | 12  | V    |
| Reverse Breakdown Voltage | V <sub>BR</sub>  | I <sub>R</sub> = 1mA           | 13.3 | -   | 16  | V    |
| Reverse Leakage Current   | I <sub>R</sub>   | V <sub>R</sub> =12V            | -    | -   | 1   | uA   |
| Clamping Voltage          | V <sub>C</sub>   | I <sub>PP</sub> = 1A,TP=8/20us | -    | -   | 20  | V    |
| Clamping Voltage          | V <sub>C</sub>   | I <sub>PP</sub> =12A,TP=8/20us | -    | -   | 25  | V    |
| Clamping Voltage          | V <sub>C</sub>   | I <sub>PP</sub> =35A,TP=8/20us | -    | -   | 36  | V    |
| Junction capacitance      | C <sub>j</sub>   | VR =0V,f =1MHz                 | -    | 60  | 90  | pF   |



5. Rating And Characteristic Curves

Fig.1 Power rating derating curve

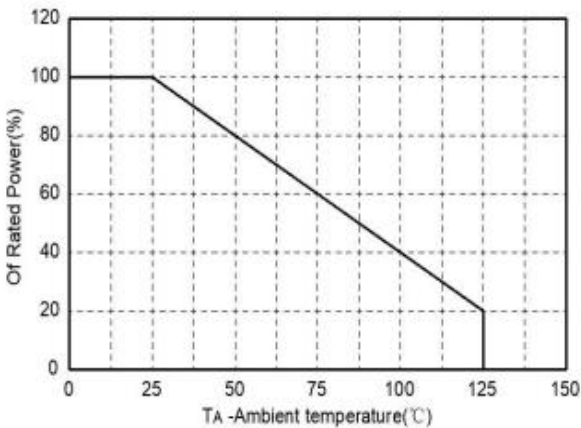


Fig.2 pulse Waveform

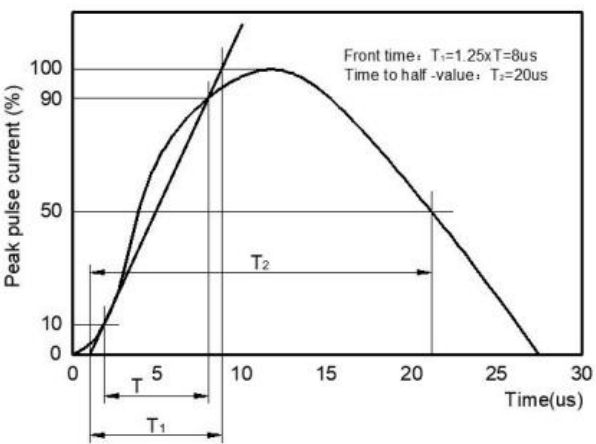


Fig.3 Capacitance between terminals characteristics

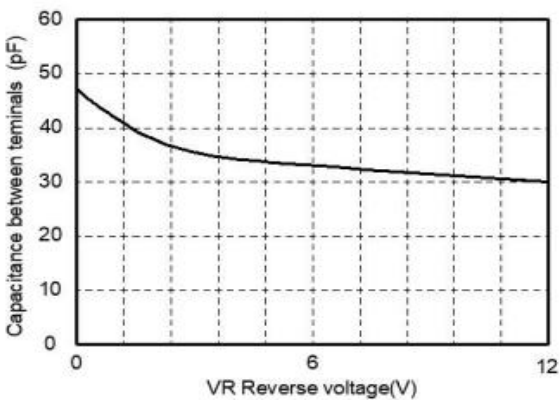
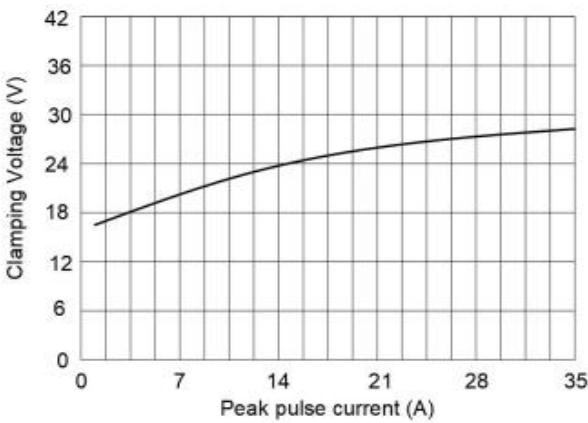
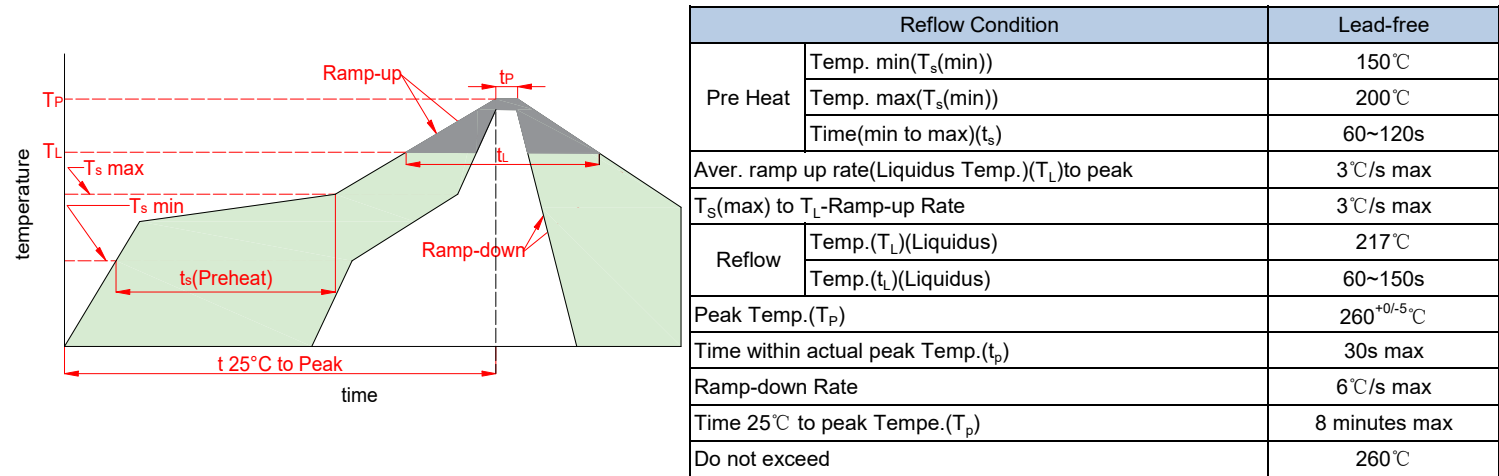


Fig.4 Clamping Voltage vs. Peak Pulse Current

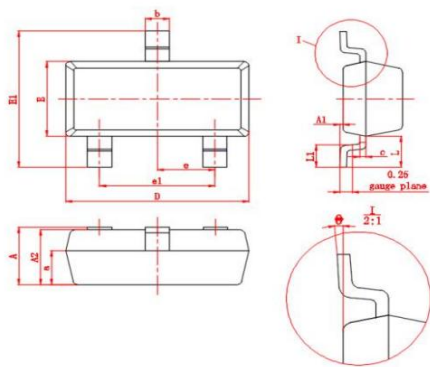




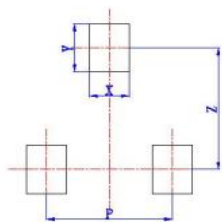
6. Soldering Parameters



7. Dimensions



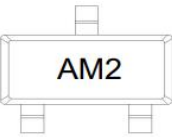
Mounting PAD Layout



| Symbol | Inches |       | Millimeters |      |
|--------|--------|-------|-------------|------|
|        | Min    | Max   | Min         | Max  |
| A      | 0.035  | 0.045 | 0.90        | 1.15 |
| A1     | 0.000  | 0.004 | 0.00        | 0.10 |
| A2     | 0.035  | 0.039 | 0.90        | 1.00 |
| a      | 0.024  |       | 0.60        |      |
| D      | 0.110  | 0.118 | 2.80        | 3.00 |
| E      | 0.047  | 0.055 | 1.20        | 1.40 |
| E1     | 0.089  | 0.100 | 2.25        | 2.55 |
| e      | 0.037  |       | 0.95        |      |
| e1     | 0.071  | 0.079 | 1.80        | 2.00 |
| b      | 0.012  | 0.020 | 0.30        | 0.50 |
| c      | 0.003  | 0.006 | 0.08        | 0.15 |
| L      | 0.022  |       | 0.55        |      |
| L1     | 0.012  | 0.020 | 0.30        | 0.50 |
| θ      | 0°     | 8°    | 0°          | 8°   |
| c      | 0.024  |       | 0.60        |      |
| c      | 0.031  |       | 0.80        |      |
| c      | 0.080  |       | 2.02        |      |
| c      | 0.075  |       | 1.90        |      |

8. Part Marking System

Cathode Band



9. Package Information

| Package | Part Number | Marking Code | Quantity(pcs) |
|---------|-------------|--------------|---------------|
| SOT23   | ESDHLC1202E | AM2          | 3000          |



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