

SOT-23 Plastic-Encapsulate ESD Protection Diodes

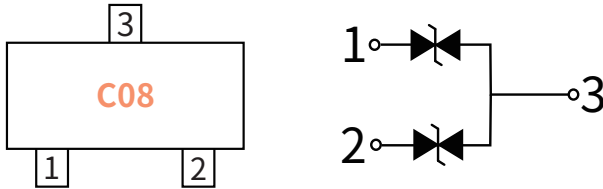
Features

- Low leakage current
- SOT-23 surface mount package
- IEC 61000-4-2 (ESD Air): $\pm 30\text{kV}$
- IEC 61000-4-2 (ESD Contact): $\pm 30\text{kV}$
- IEC 61000-4-5 (Lightning 8/20 μs): 20A

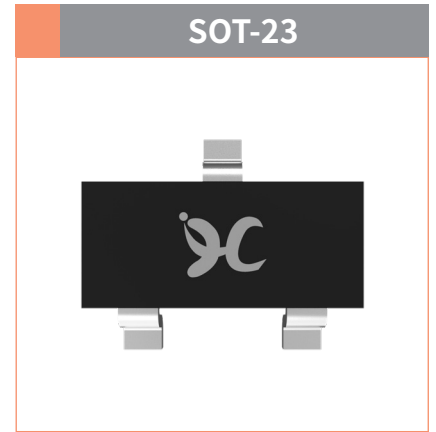
Applications

- Cellular Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants
- Notebooks, Desktops, and Servers
- Portable Instrumentation, Networking and Telecom
- Peripherals, Serial and Parallel Ports

Reference News



Reverse Working Voltage
8V Max.
Normal capacitance
60pF(Max.)

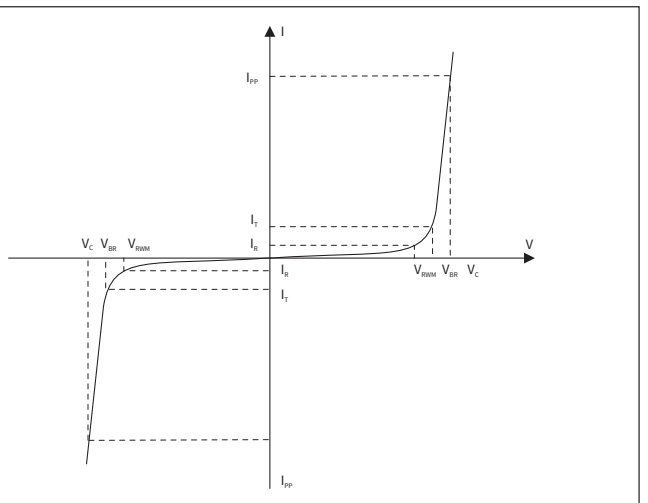


Maximum Ratings (Ta=25°C Unless otherwise specified)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|------------------|--------------------------------------|---------------------------------|-------------|------|
| V _{ESD} | Electrostatic Discharge Voltage | ESD per IEC 61000-4-2(Air) | ± 30 | KV |
| | | ESD per IEC 61000-4-2(Contact) | ± 30 | KV |
| P _{PP} | Peak Pulse Power | tp = 8/20 μs | 500 | W |
| I _{PP} | Rated Peak Pulse Current | tp = 8/20 μs | 20 | A |
| T _J | Operating Junction Temperature Range | — | -55 to +125 | °C |
| T _{STG} | Operating Junction Temperature Range | — | -55 to +150 | °C |

Electrical Parameter

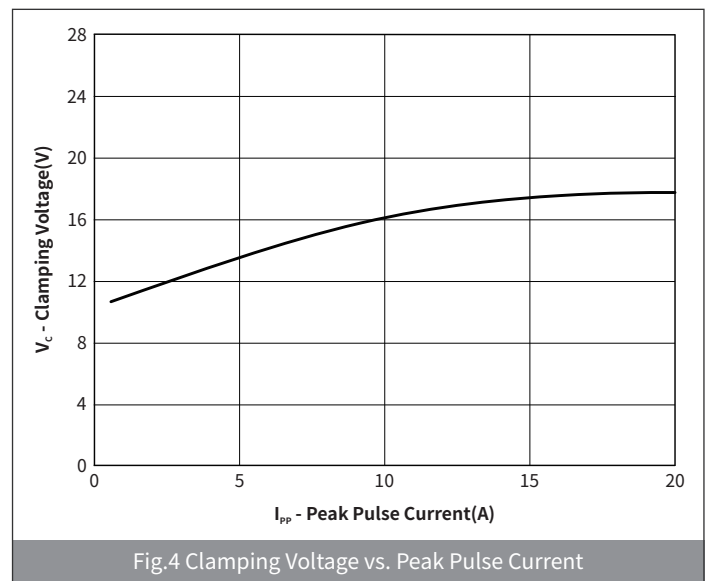
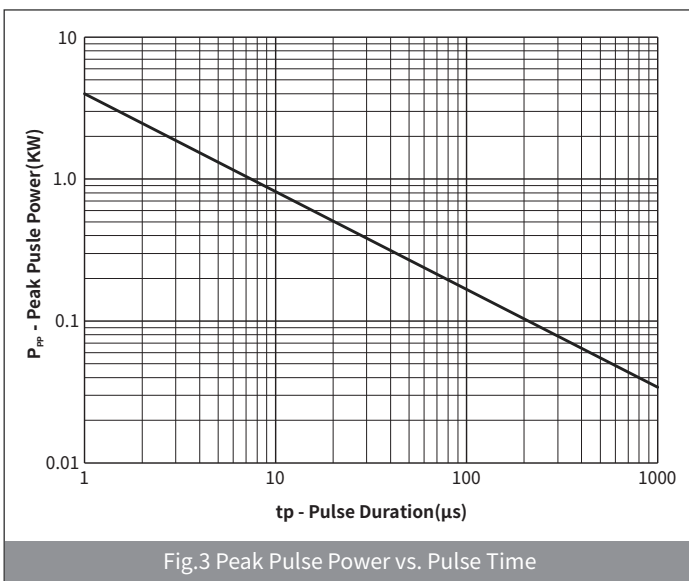
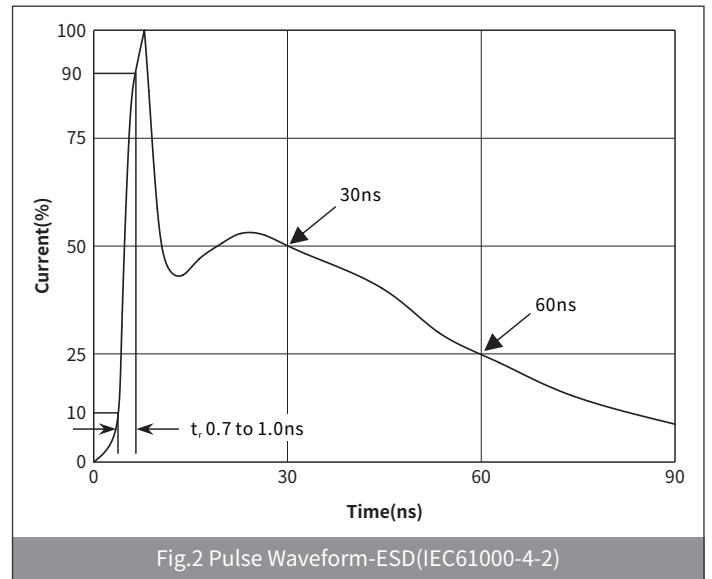
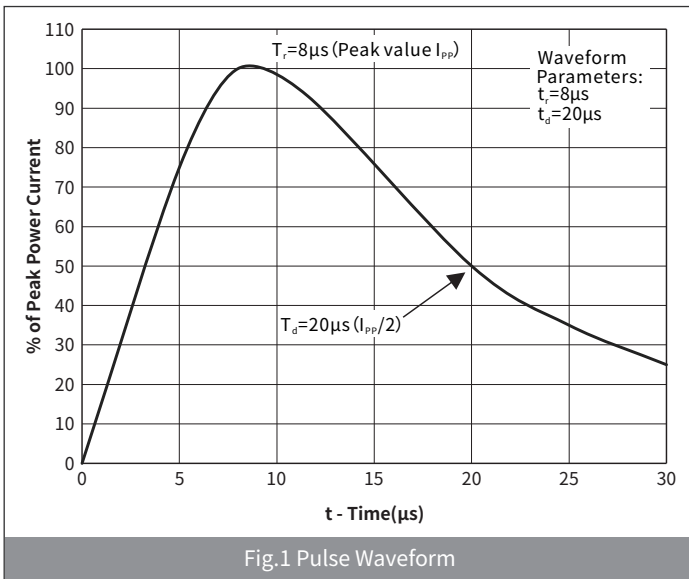
| SYMBOL | PARAMETER |
|------------------|---|
| V _C | Clamping Voltage @ I _{PP} |
| V _{BR} | Breakdown Voltage @ I _T |
| I _{PP} | Peak Pulse Current |
| I _T | Test Current |
| I _R | Reverse Leakage Current @ VRWM |
| V _{RWM} | Peak Reverse Working Voltage |
| P _{PP} | Peak Pulse Power Dissipation |
| C _J | Junction Capacitance @ V _R =0V, f=1MHz |
| I _F | Forward Current |
| V _F | Forward Voltage @ I _F |



● Electrical Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | CONDITION | Min | Typ | Max | UNIT |
|------------------------------|-----------|---|-----|------|-----|---------------|
| Peak Reverse Working Voltage | V_{RWM} | $T_a=25^\circ\text{C}$ | — | — | 8.0 | V |
| Breakdown Voltage | V_{BR} | $I_R=1.0\text{mA}, T_a=25^\circ\text{C}$ | 9.0 | — | 12 | V |
| Reverse Leakage Current | I_R | $V_R=8.0\text{V}, T_a=25^\circ\text{C}$ | — | — | 1.0 | μA |
| Clamping Voltage | V_C | $I_{PP}=1.0\text{A}, t_p=8/20\mu\text{s}$ | — | 10.5 | — | V |
| | | $I_{PP}=20\text{A}, t_p=8/20\mu\text{s}$ | — | — | 25 | |
| Junction Capacitance | C_J | $V_R=0\text{V}, f=1\text{MHz}$ | — | — | 60 | pF |

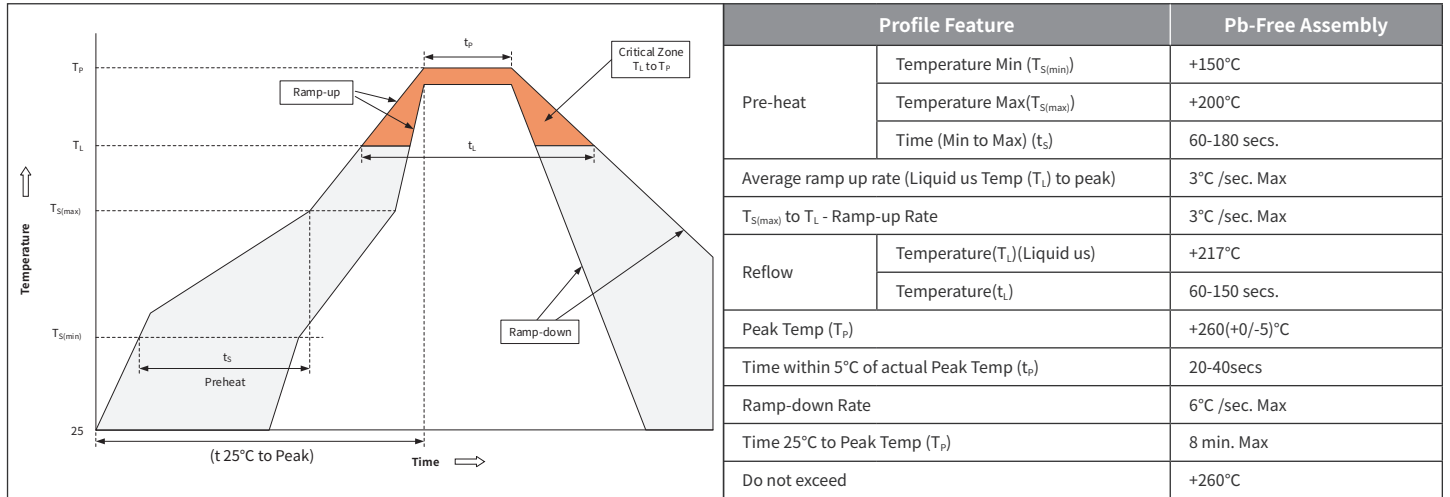
● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



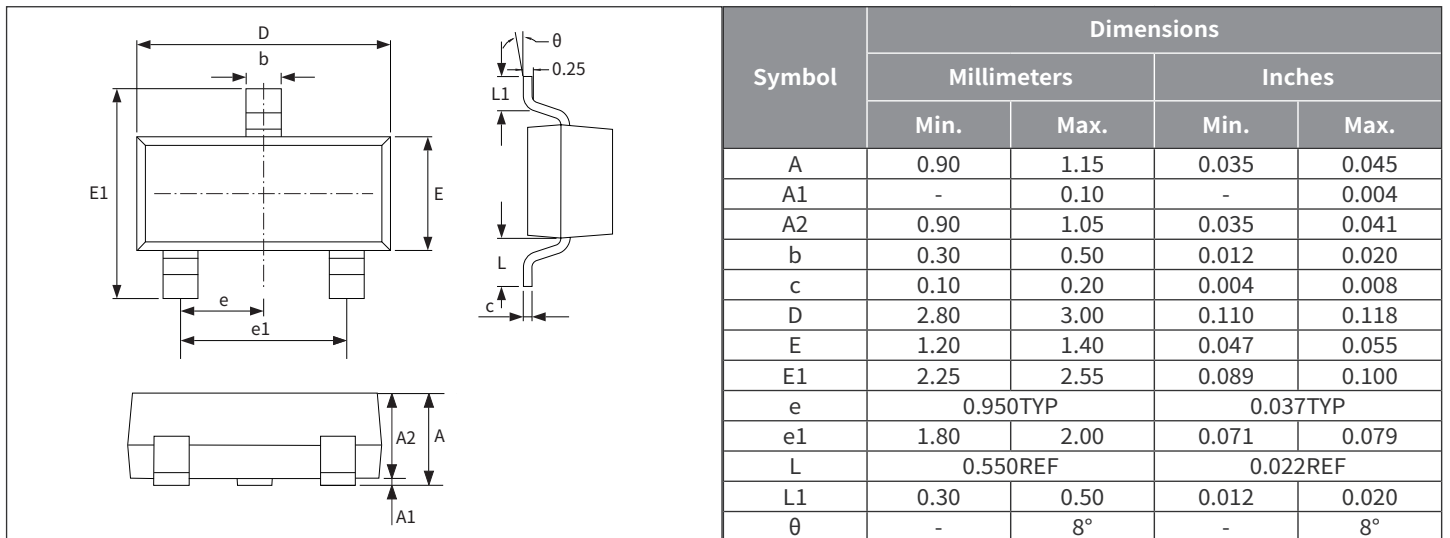
Ordering Information

| PREFERRED P/N | PACKAGE | SIZE(mm) | DELIVERY MODE | MPQ(PCS) |
|---------------|---------|-----------------|---------------|----------|
| H8VNT2B | SOT-23 | 2.90×2.40×1.025 | 7" REEL | 3000 |

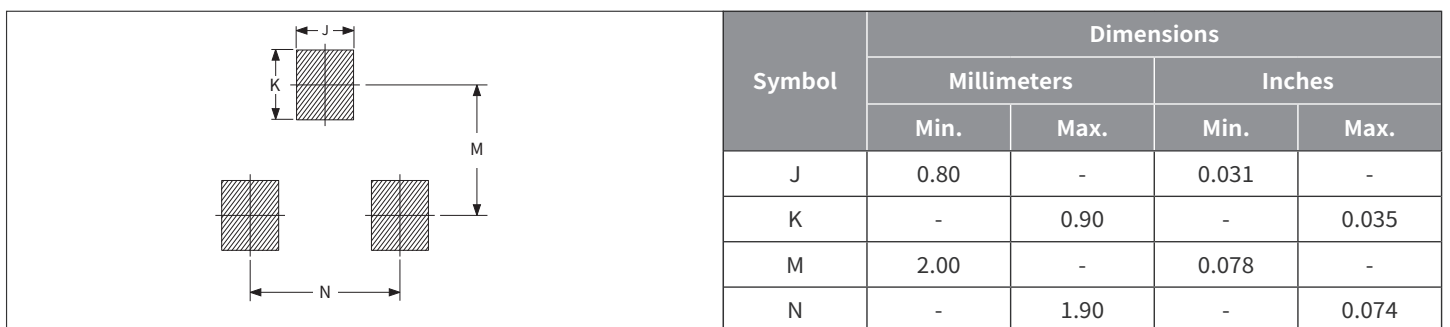
Recommended Soldering Conditions



Package Outline Dimensions (SOT-23)



Suggested Pad Layout



Note:

This soldering footprint is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.