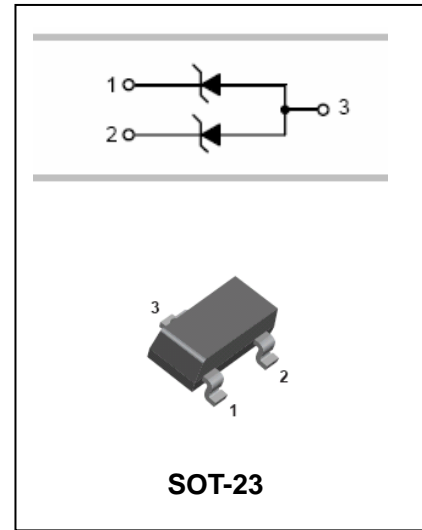


TVS DIODE ARRAY

SM24

FEATURES

- 300 watts peak pulse power.(tp=8/20us)
- Transient protection for data&power lines to
IEC 61000-4-2(ESD)15Kv(air),8kV(contact)
IEC 61000-4-4(EFT)40A(tp=5/50ns)
IEC 61000-4-5(Lighting)12A(tp=1.2/50us)
- Protects one bidirectional line or two unidirectional lines.
- Working Voltage: 24V.
- Low clamping voltage.
- Solid-state silicon avalanche technology.



APPLICATIONS

- Cellular Handsets and Accessories
- Portable Electronics
- Industrial Controls
- Set-Top Box
- Servers, Notebook, and Desktop PC

ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| SM24 | M24 | SOT-23 |

MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Symbol | Parameter | Ratings | Units |
|------------------|---|-------------|-------|
| P _{PK} | Peak Pulse Power(tp=8/20us) | 300 | Watts |
| θ _{JA} | Thermal Resistance, Junction to Ambient | 556 | °C/W |
| T _L | Lead Soldering Temperature | 260(10sec.) | °C |
| T _J | Operating Temperature | -55 to +125 | °C |
| T _{STG} | Storage Temperature | -55 to +150 | °C |



TVS DIODE ARRAY

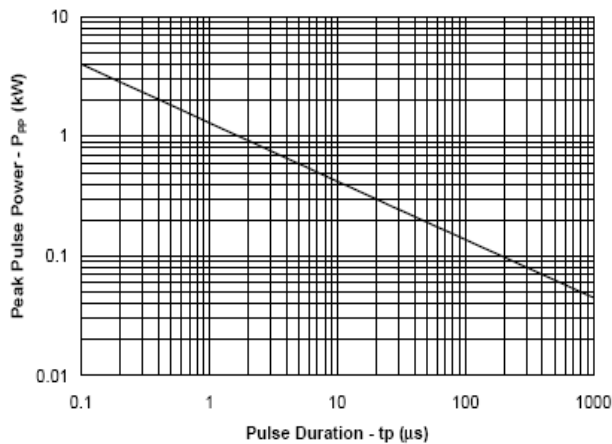
SM24

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

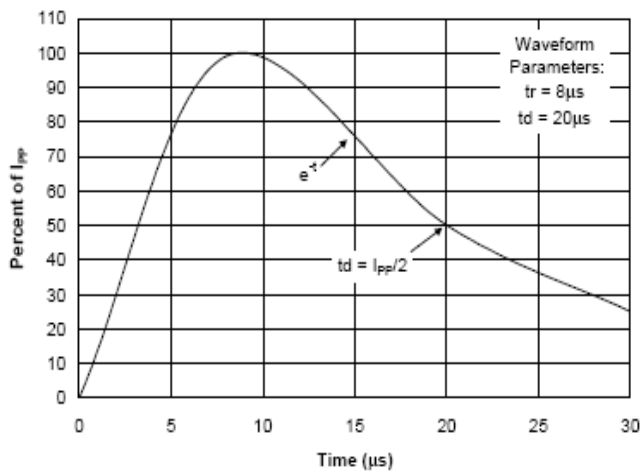
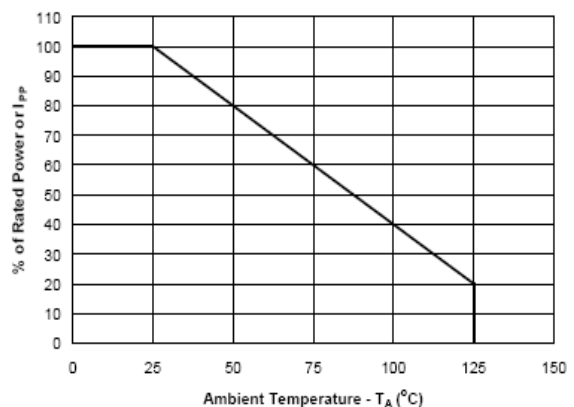
| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|----------------------------|-----------|---|------|-----|-----|---------|
| Reverse Stand-Off Voltage | V_{RWM} | | | | 24 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_t=1mA$ | 26.7 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM}=24V, T=25^\circ C$ | | | 1 | μA |
| Clamping Voltage | V_C | $I_{pp}=1A, t_p=8/20\mu s$ | | | 43 | V |
| Maximum Peak Pulse Current | I_{pp} | $t_p=8/20\mu s$ | | | 5 | A |
| Junction Capacitance | C_j | Pin 1 to 2 $V_R=0V, f=1MHz$ | | | 50 | pF |
| Junction Capacitance | C_j | Pin 1 to 3 and Pin 2 to 3 $V_R=0V, f=1MHz$ | | | 60 | pF |

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve



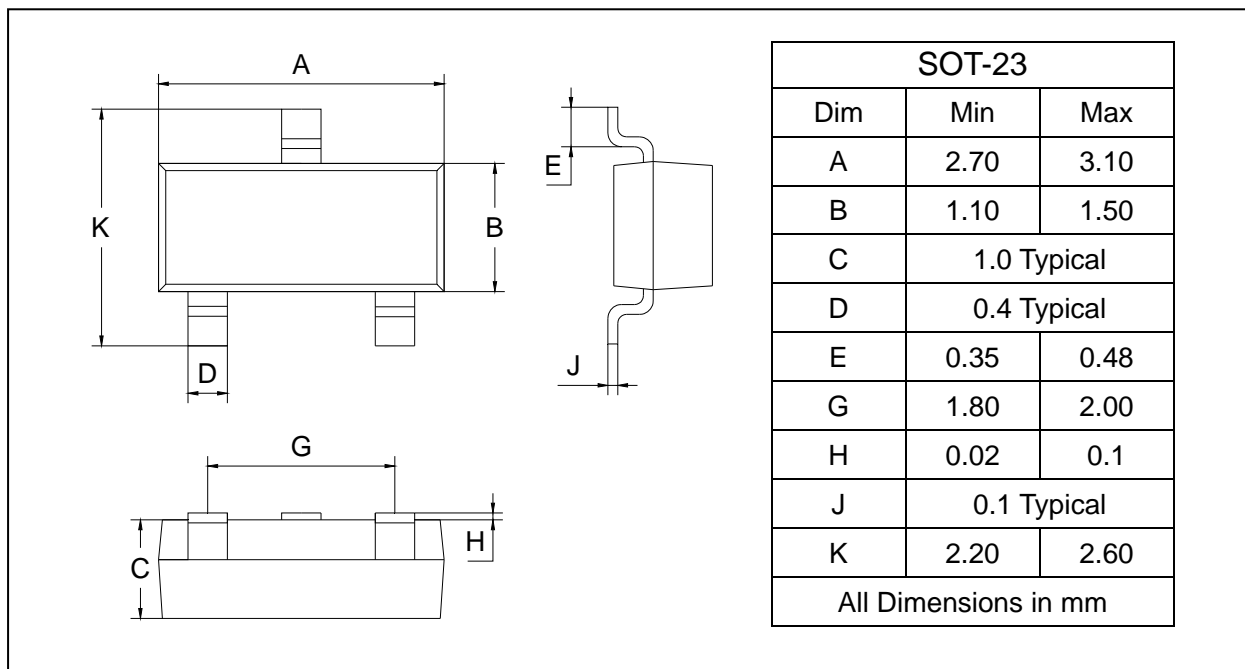
TVS DIODE ARRAY

SM24

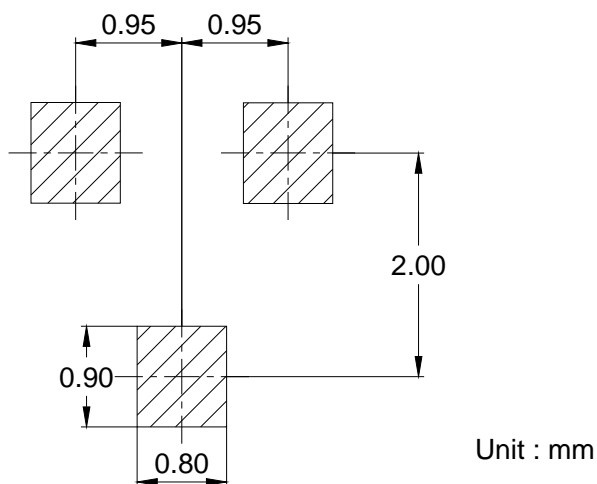
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

| Device | Package | Shipping |
|--------|---------|----------------|
| SM24 | SOT-23 | 3000/Tape&Reel |