

Features

- Bi-directional ESD protection of two lines
- 40Watts peak pulse power ($t_p = 8/20\mu s$)
- Working voltage: 24V
- Low capacitance between I/O pins: 0.95pF(typ)
- IEC 61000-4-2 $\pm 25kV$ contact $\pm 25kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)

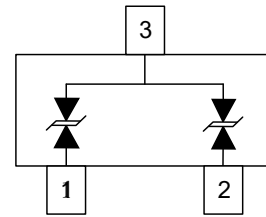
Applications

- Open Alliance IEEE 100/1000BASE-T1 Ethernet
- Low-Voltage Differential Signaling(LVDS)
- Automotive

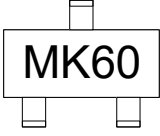
Mechanical Data

- Package:SOT-23
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

| Part Number | Package | Marking | Packing | Reel Size |
|-------------|---------|---|------------------|-----------|
| PESD2ETH1G | SOT-23 |  MK60 | 3000 Tape & Reel | 7 inches |

Absolute Maximum Rating($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

| Parameter | Symbol | Value | Unit |
|--|------------------|----------------|--------------------|
| ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact) | V_{ESD} | 25 25 | kV |
| Lead Soldering Temperature | T_L | 260(10seconds) | $^{\circ}\text{C}$ |
| Junction Temperature | T_J | -55 to +125 | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 to +125 | $^{\circ}\text{C}$ |

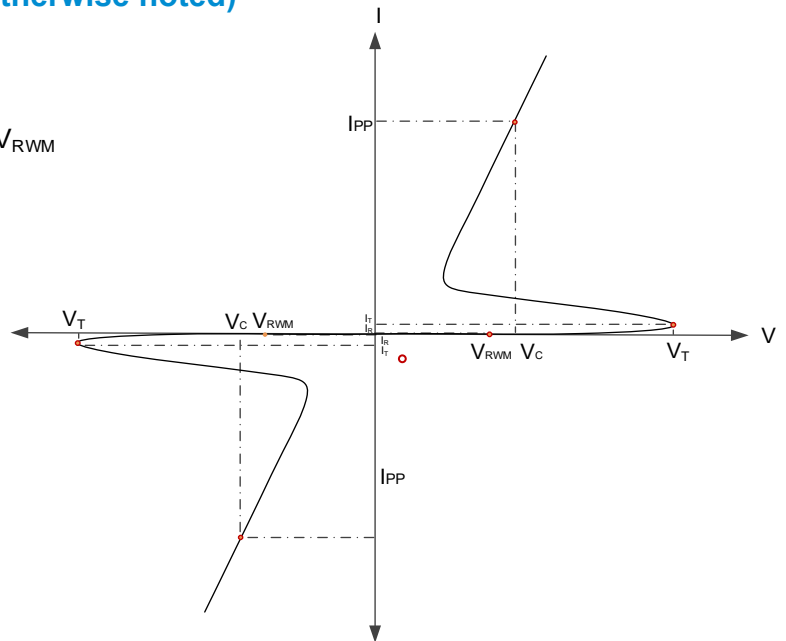
Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|-------------------------|------------------|---|-----|------|-----|---------------|
| Reverse Working Voltage | V_{RWM} | | | | 24 | V |
| Breakdown Voltage | V_{BR} | $I_T = 1\text{mA}$ | 100 | | | V |
| Reverse Leakage Current | I_R | $V_{\text{RWM}}=24\text{V}$ | | | 0.1 | μA |
| ESD Dynamic Resistance | R_{DYN} | $t_p=0.2/100\text{ns}$ | | 0.25 | | Ω |
| Clamping Voltage | V_C | $I_{\text{TLP}}=4\text{A}, t_p=0.2/100\text{ns}$ | | 29.5 | | V |
| Clamping Voltage | V_C | $I_{\text{TLP}}=16\text{A}, t_p=0.2/100\text{ns}$ | | 32.5 | | V |
| Junction Capacitance | C_J | I/O to GND; $V_R=0\text{V}$; $f=1\text{MHz}$ | | 2.0 | 2.5 | pF |
| Junction Capacitance | C_J | Between I/O; $V_R=0\text{V}$; $f=1\text{MHz}$ | | 0.95 | 1.2 | pF |



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

- V_{RWM}Reverse Working Voltage Max.
- I_R Maximum Reverse Leakage Current @ V_{RWM}
- V_{BR} Reverse Breakdown Voltage
- I_{PP} Maximum Reverse Peak Pulse Current
- V_C Clamping Voltage @ I_{PP}



Typical Characteristics(TA=25°C unless otherwise Specified)

Figure 1: Power Derating Curve

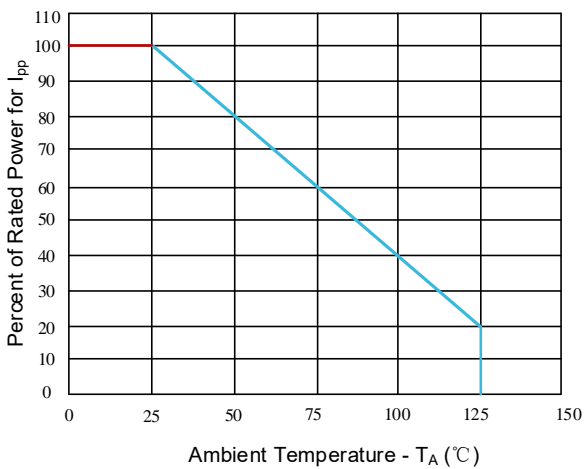


Figure 2: Pulse Waveform-ESD(IEC61000-4-2)

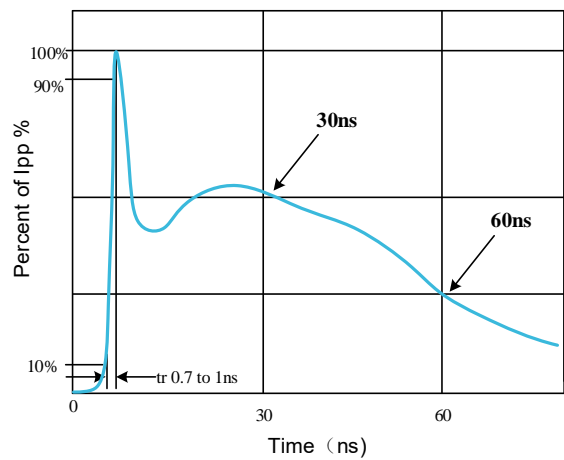


Figure 3: TLP Positive I-V Curve

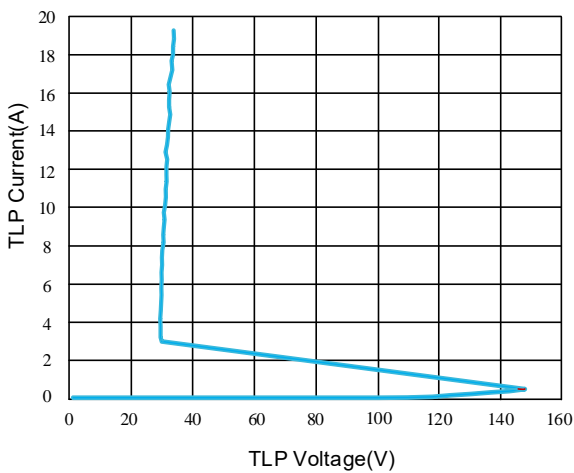
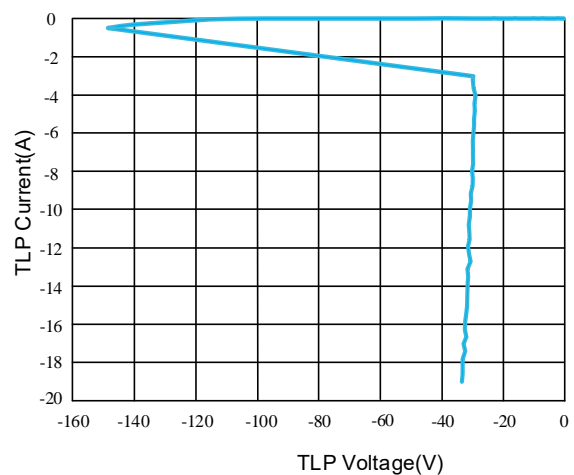
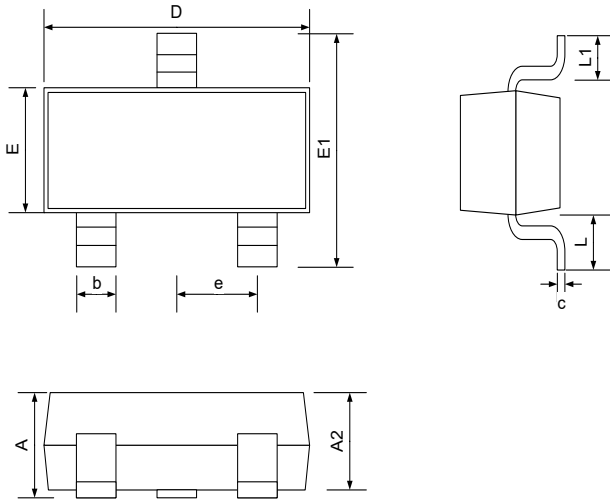


Figure 4: TLP Negative I-V Curve





Outline Drawing – SOT-23



| COMMON DIMENSION (mm) | | | |
|-----------------------|-------|-------|-------|
| PKG | SOT23 | | |
| REF. | MIN. | NOM. | MAX. |
| A | 0.900 | | 1.150 |
| A2 | 0.900 | | 1.050 |
| b | 0.300 | | 0.500 |
| c | 0.080 | | 0.150 |
| D | 2.800 | | 3.000 |
| E | 1.200 | | 1.400 |
| E1 | 2.250 | | 2.550 |
| e | | 0.950 | |
| L | | 0.550 | |
| L1 | 0.300 | | 0.500 |

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [ESD Suppressors / TVS Diodes](#) category:

Click to view products by [DOWO](#) manufacturer:

Other Similar products are found below :

[60KS200C](#) [D18V0L1B2LP-7B](#) [D5V0F4U5P5-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#) [P6KE8.2A](#) [JANTX1N6053A](#) [SA60CA](#) [SA64CA](#)
[SMBJ12CATR](#) [SMBJ33CATR](#) [SMBJ6.5A](#) [SMBJ8.0A](#) [ESD101-B1-02ELS E6327](#) [ESD112-B1-02EL E6327](#) [ESD7451N2T5G](#) [19180-510](#)
[CPDT-5V0USP-HF](#) [3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [JANTX1N6126A](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#)
[SCM1293A-04SO](#) [ESD200-B1-CSP0201 E6327](#) [SM12-7](#) [CEN955 W/DATA](#) [VESD12A1A-HD1-GS08](#) [CPDQC5V0-HF](#) [D1213A-01LP4-7B](#)
[ESD101-B1-02EL E6327](#) [AOZ8808DI-03](#) [5KP15A](#) [5KP48A](#) [5KP90A](#) [ESD3V3D7-TP](#) [15KPA36A-LF](#) [P4KE56CA](#) [P4KE68A](#)
[P4KE91CATR](#) [P6KE120A](#) [P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#)