

ESD Suppressor

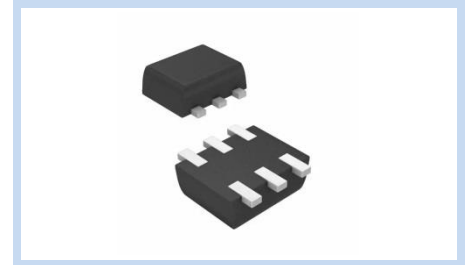
3.3V 4-Unidirectional SOT-563

ME3V34U8V5S563

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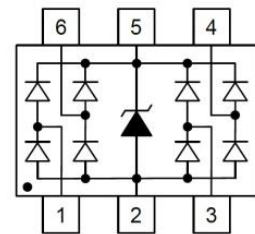
FEATURE

- IEC 61000-4-2 ESD: $\pm 15\text{KV}$ (Air) $\pm 8\text{KV}$ (Contact)
- ESD Protection for four Unidirectional Channels
- Array of Surgerated, Low Capacitance Diodes
- Low Leakage Current and Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

- USB Power and Data Line Protection
- 10/100/1000 Ethernet
- Video Line Protection
- LAN/WAN Device
- Microcontroller Input Protection
- Portable Electronics



MAXIMUM RATINGS AND CHARACTERISTICS

| Parameter | Symbol | Value | Unit |
|--|----------------|----------|--------------------|
| ESD Voltage (Contact discharge) | V_{ESD} | ± 8 | KV |
| ESD Voltage (Air discharge) | | ± 15 | |
| Peak Pulse Current ($t_p=8/20\mu s$) | I_{PP} | 4 | A |
| Operating & Storage Temperature Range | T_J, T_{STG} | -55~+150 | $^{\circ}\text{C}$ |

ELECTRICAL CHARACTERISTICS

| Parameter | Condition | Symbol | Min. | Typ. | Max. | Unit |
|--------------------------------|--|-----------|------|------|------|---------------|
| Reverse Stand-Off Voltage | -- | V_{RWM} | -- | -- | 3.3 | V |
| Reverse Breakdown Voltage | $I_{BR}=1\text{mA}$ | V_{BR} | 4.5 | -- | -- | V |
| Reverse Leakage Current | $V_R=3.3\text{V}$, Each I/O pin | I_R | -- | -- | 1 | μA |
| Clamping Voltage | $I_{PP}=1\text{A}$, $t_p=8/20\mu s$ | V_C | -- | -- | 8.5 | V |
| | $I_{PP}=4\text{A}$, $t_p=8/20\mu s$ | | -- | -- | 15 | |
| Off State Junction Capacitance | $V_{dc}=0$, $f=1\text{MHz}$, Between I/O pins and GND | C_J | -- | 0.5 | -- | pF |

Notes:

1. $T_J=25^{\circ}\text{C}$ unless otherwise specified

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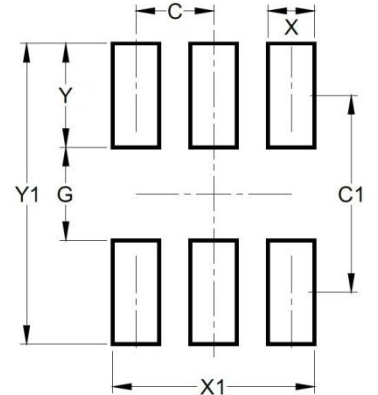
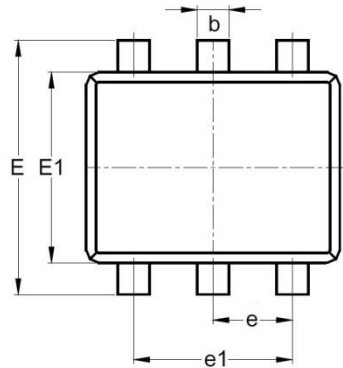
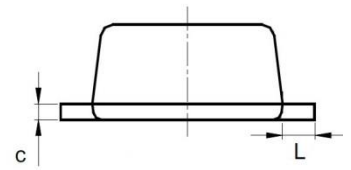
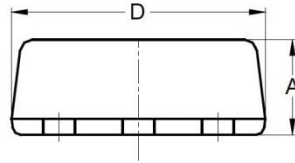
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DIMENSIONS AND RECOMMENDED LAND PATTERN

| Item | Min (mm) | Max (mm) |
|------|----------|----------|
| A | 0.50 | 0.60 |
| b | 0.17 | 0.27 |
| c | 0.08 | 0.18 |
| D | 1.50 | 1.70 |
| e | 0.50 | 0.50 |
| e1 | 1.00 | 1.00 |
| E | 1.50 | 1.70 |
| E1 | 1.10 | 1.30 |
| L | 0.10 | 0.30 |
| C | 0.50 | 0.50 |
| C1 | 1.30 | 1.30 |
| G | 0.60 | 0.60 |
| X | 0.30 | 0.30 |
| X1 | 1.30 | 1.30 |
| Y | 0.67 | 0.67 |
| Y1 | 2.00 | 2.00 |



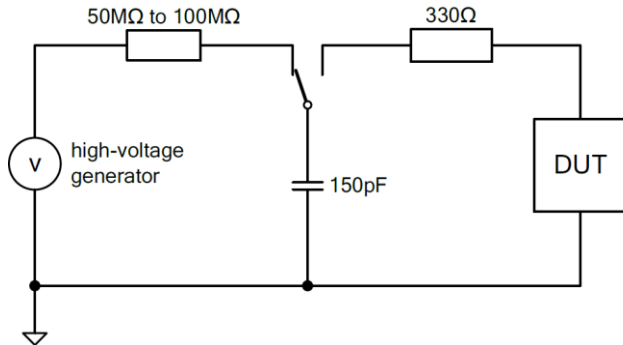
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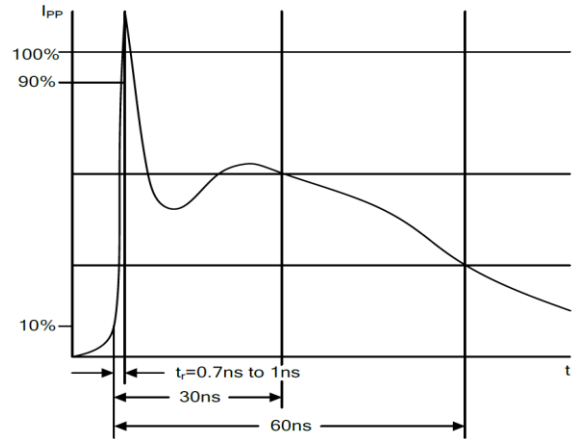
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ESD PROTECTION STANDARDS

IEC61000-4-2

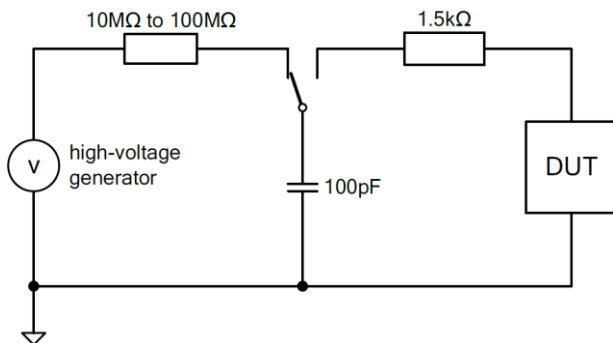


Test Circuit according to IEC61000-4-2

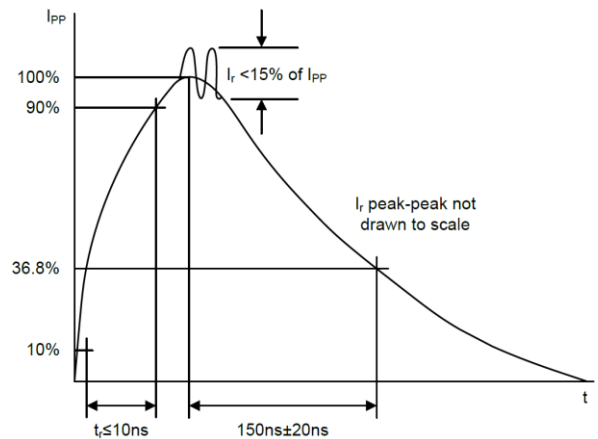


ESD Surge according to IEC61000-4-2

Human Body Model (HBM, 883E method 3015.7)



Test Circuit according to MIL-883E method 3015.7



ESD Surge according to MIL-883E method 3015.7

*Specifications subject to change without notice.