

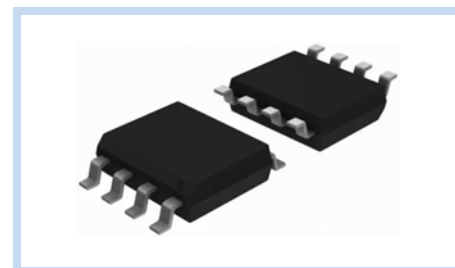
# ESD Suppressor 24V 4-Bidirectional SOIC-08

ME244B43SO815

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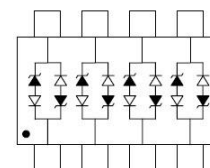
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 30\text{KV}$  (Air)  $\pm 30\text{KV}$  (Contact)
- ESD Protection for four Bidirectional Channels
- Low Leakage Current
- Low Capacitance and Clamping Voltages
- Solid-State Silicon-Avalanche Technology



## APPLICATION

- Multi-Mode Transceiver Protection
- WAN Equipment
- CSU/DSU
- Multi Plexers
- Routers
- Ethernet-10/100 Base T



## MAXIMUM RATINGS AND CHARACTERISTICS

| Parameter                             | Symbol         | Value    | Unit               |
|---------------------------------------|----------------|----------|--------------------|
| ESD Voltage (Contact discharge)       | $V_{ESD}$      | $\pm 30$ | KV                 |
| ESD Voltage (Air discharge)           |                | $\pm 30$ |                    |
| Peak Pulse Power ( $t_p=8/20\mu s$ )  | $P_{PP}$       | 500      | W                  |
| 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      | --   | $V_{RWM}$ | --   | --   | 24   | V             |
| Reverse Breakdown Voltage      | $I_{BR}=1\text{mA}$  | $V_{BR}$  | 26.7 | --   | --   | V             |
| Reverse Leakage Current        | $V_R=24\text{V}$ , Each I/O Pin                            | $I_R$     | --   | --   | 1    | $\mu\text{A}$ |
| Clamping Voltage               | $I_{PP}=1\text{A}$ , $t_p=8/20\mu s$                       | $V_C$     | --   | --   | 43   | V             |
|                                | $I_{PP}=10\text{A}$ , $t_p=8/20\mu s$                      |           | --   | --   | 49   |               |
| Off State Junction Capacitance | $V_{dc}=0$ , $f=1\text{MHz}$ ,<br>Between I/O pins and GND | $C_J$     | --   | --   | 15   | pF            |

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

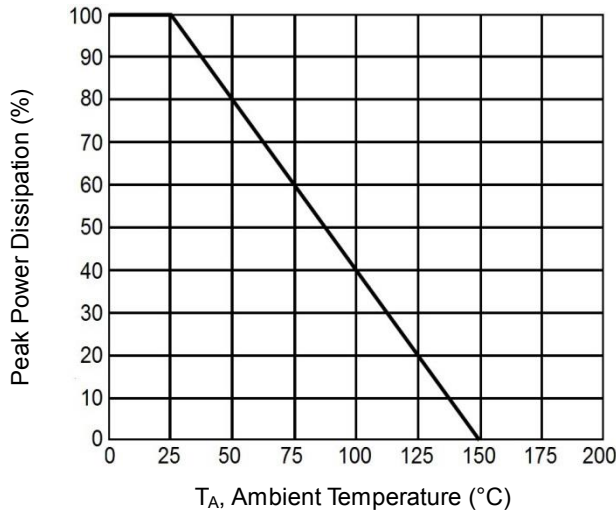
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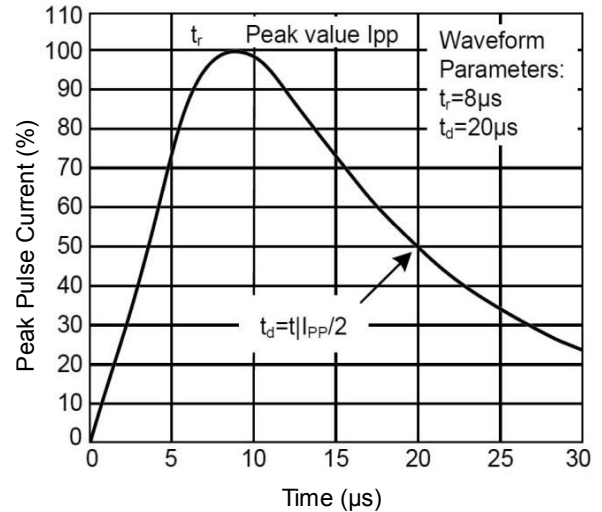
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## CHARACTERISTIC CURVES

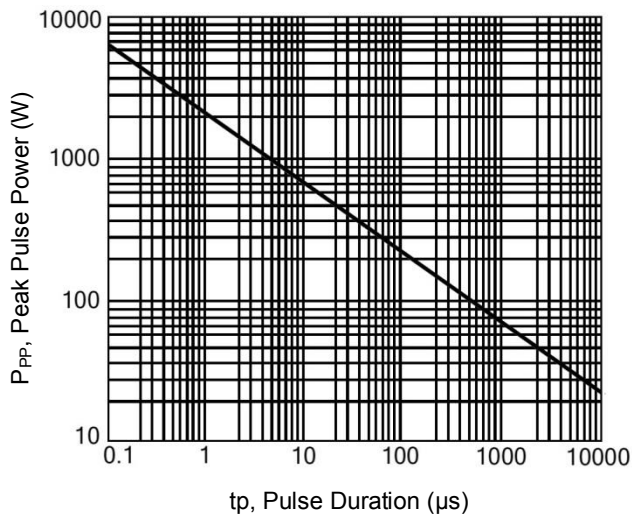
Derating Curve



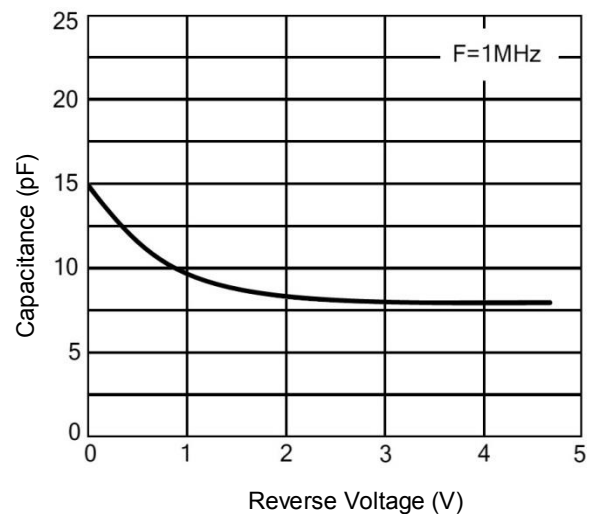
Pulse Waveforms



Non-Repetitive Peak Pulse vs. Pulse Time



Capacitance vs. Reverse Voltage



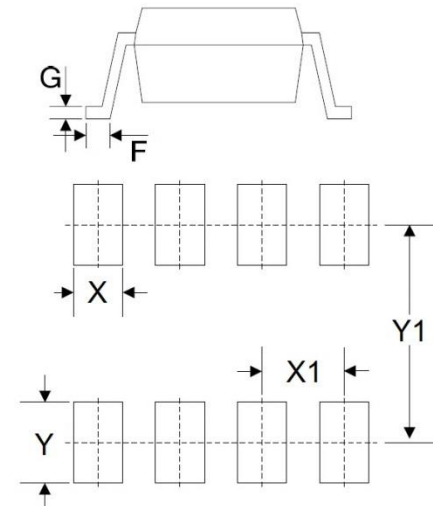
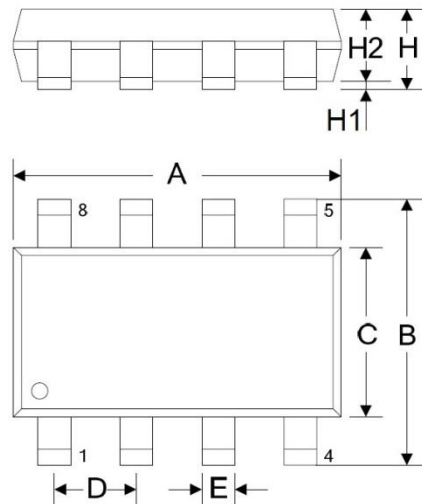
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## DIMENSIONS AND RECOMMENDED LAND PATTERN

| Item | Min (mm) | Max (mm) |
|------|----------|----------|
| A    | 4.80     | 5.00     |
| B    | 5.80     | 6.20     |
| C    | 3.80     | 4.00     |
| D    | 1.27     | 1.27     |
| E    | 0.33     | 0.51     |
| F    | 0.40     | 1.27     |
| G    | 0.19     | 0.25     |
| H    | 1.35     | 1.75     |
| H1   | 0.10     | 0.25     |
| H2   | 1.45     | 1.45     |
| X    | 0.73     | 0.73     |
| X1   | 1.27     | 1.27     |
| Y    | 1.20     | 1.20     |
| Y1   | 6.60     | 6.60     |



\*Specifications subject to change without notice.