

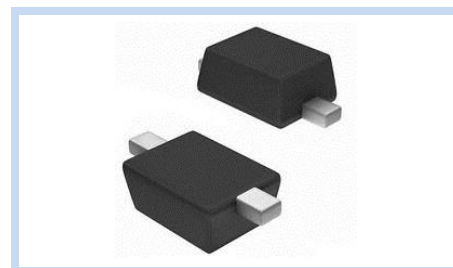
# ESD Suppressor 12V Unidirectional SOD-323F

ME121US323F130

MERITEK

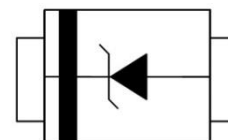
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 15\text{KV}$  (Air)  $\pm 8\text{KV}$  (Contact)
- ESD Protection for One Unidirectional Channel
- Low Leakage Current
- Low Clamping Voltage



## APPLICATION

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Peripherals
- Portable Devices



## MAXIMUM RATINGS AND CHARACTERISTICS

| Parameter                                  | Symbol                | Value           | Unit               |
|--------------------------------------------|-----------------------|-----------------|--------------------|
| ESD Voltage (Contact discharge)            | $V_{\text{ESD}}$      | $\pm 8$         | KV                 |
| ESD Voltage (Air discharge)                |                       | $\pm 15$        |                    |
| Peak Pulse Power ( $t_p=8/20\mu\text{s}$ ) | $P_{\text{PP}}$       | 350             | W                  |
| Operating & Storage Temperature Range      | $T_J, T_{\text{STG}}$ | $-50 \sim +150$ | $^{\circ}\text{C}$ |

## ELECTRICAL CHARACTERISTICS

| Parameter                      | Condition                                         | Symbol           | Min. | Typ. | Max. | Unit          |
|--------------------------------|---------------------------------------------------|------------------|------|------|------|---------------|
| Reverse Stand-Off Voltage      | --                                                | $V_{\text{RWM}}$ | --   | --   | 12   | V             |
| Reverse Breakdown Voltage      | $I_{\text{BR}}=1\text{mA}$                        | $V_{\text{BR}}$  | 13.3 | --   | 15   | V             |
| Reverse Leakage Current        | $V_{\text{R}}=12\text{V}$                         | $I_{\text{R}}$   | --   | --   | 1    | $\mu\text{A}$ |
| Clamping Voltage               | $I_{\text{PP}}=1\text{A}$ , $t_p=8/20\mu\text{s}$ | $V_{\text{C}}$   | --   | --   | 19   | V             |
| Off State Junction Capacitance | $V_{\text{dc}}=0$ , Bias, $f=1\text{MHz}$         | $C_J$            | --   | 130  | --   | pF            |
|                                | $V_{\text{dc}}=5$ , Bias, $f=1\text{MHz}$         |                  | --   | 50   | --   |               |

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

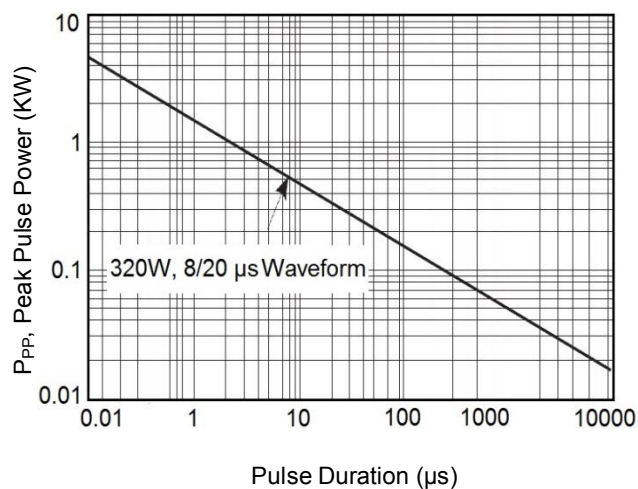
# ESD Suppressor 12V Unidirectional SOD-323F

ME121US323F130

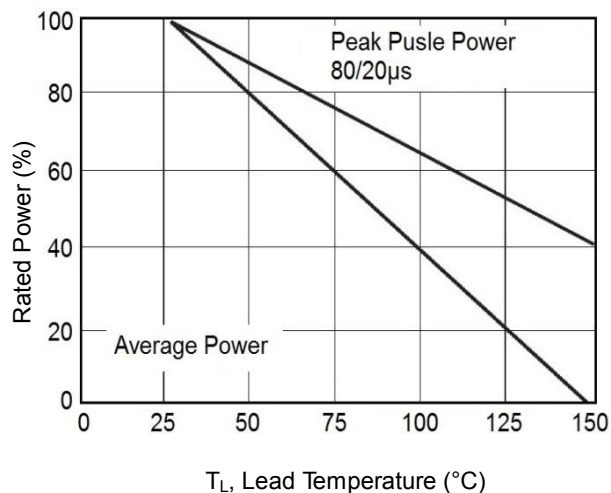
MERITEK

## CHARACTERISTIC CURVES

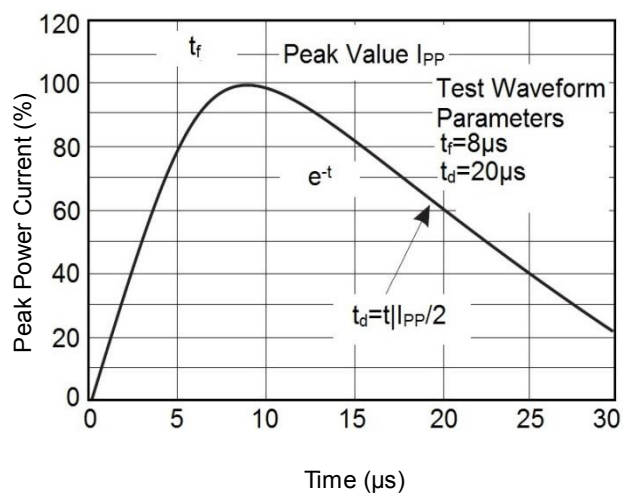
Peak Pulse Power vs. Pulse Time



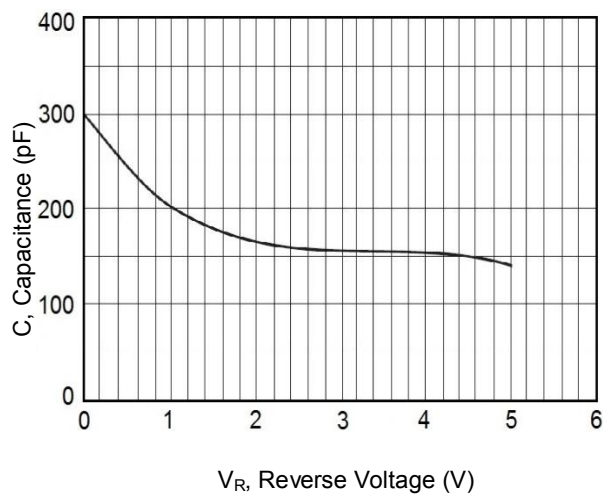
Derating Curve



Pulse Waveforms



Typical Reverse Voltage vs. Capacitance



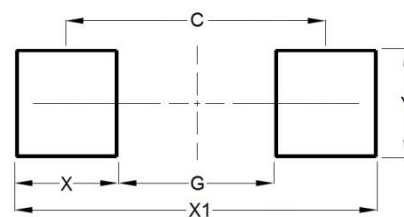
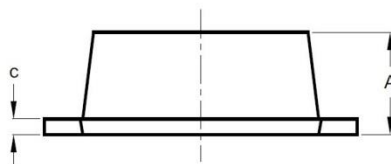
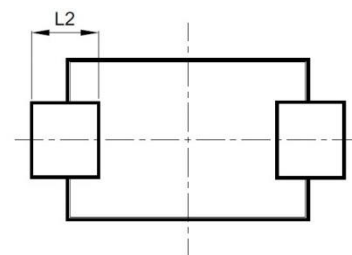
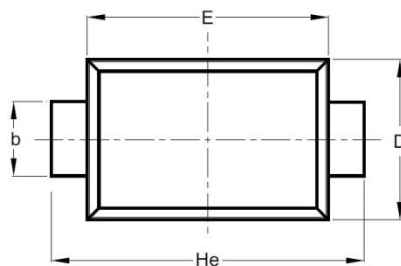
# ESD Suppressor 12V Unidirectional SOD-323F

ME121US323F130

MERITEK

## DIMENSIONS AND RECOMMENDED LAND PATTERN

| Item | Min (mm) | Max (mm) |
|------|----------|----------|
| A    | 0.70     | 0.90     |
| b    | 0.25     | 0.35     |
| C    | 0.05     | 0.15     |
| D    | 1.15     | 1.35     |
| E    | 1.75     | 1.95     |
| He   | 2.30     | 2.70     |
| L2   | 0.30     | -        |
| C    | 2.00     | 2.00     |
| G    | 1.30     | 1.30     |
| X    | 0.70     | 0.70     |
| X1   | 2.70     | 2.70     |
| Y    | 0.40     | 0.40     |



\*Specifications subject to change without notice.