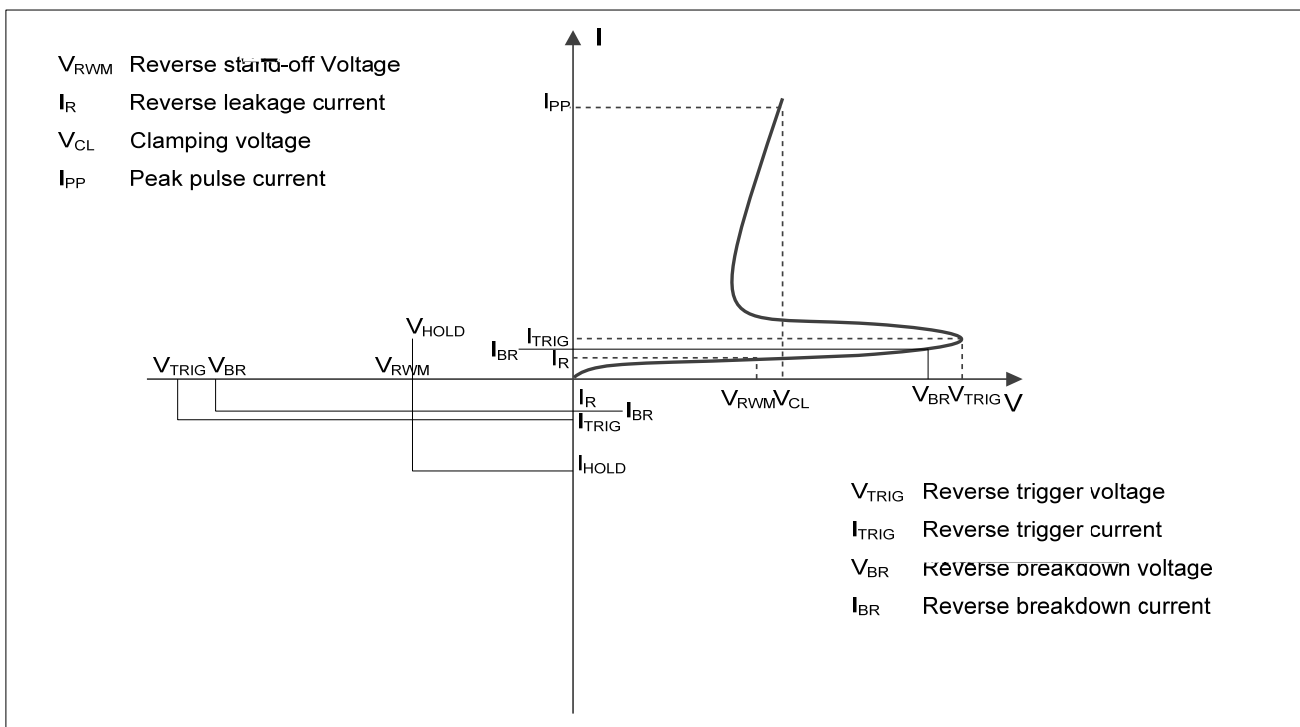


## Definitions of electrical characteristics





# VESDSL3V3LZBA

## Maximum Ratings

| PARAMETER                                       | SYMBOL    | LIMITS   | UNIT        |
|---|-----------|----------|-------------|
| Peak pulse power ( $t_p = 8/20\mu s$ )          | $P_{pk}$  | 35       | W           |
| Peak pulse current ( $t_p = 8/20\mu s$ )        | $I_{PP}$  | 5        | A           |
| ESD according to IEC61000-4-2 air discharge     | $V_{ESD}$ | $\pm 15$ | kV          |
| ESD according to IEC61000-4-2 contact discharge |           | $\pm 15$ |             |
| Junction temperature                            | $T_J$     | 125      | $^{\circ}C$ |
| Operating temperature                           | $T_{OP}$  | -40~85   | $^{\circ}C$ |
| Storage temperature                             | $T_{STG}$ | -55~150  | $^{\circ}C$ |

## Electrical Characteristics $T_a=25$ Unless otherwise specified

| PARAMETER                        | Symbol    | UNIT | Conditions                     | Min | Typ  | Max |
|----------------------------------|-----------|------|--------------------------------|-----|------|-----|
| Reverse maximum working voltage  | $V_{RWM}$ | V    |                                |     |      | 3.3 |
| Reverse leakage current          | $I_R$     | nA   | $V_{RWM} = 3.3V$               |     | 1    | 50  |
| Reverse breakdown voltage        | $V_{BR}$  | V    | $I_{BR} = 1mA$                 | 7.0 | 10.0 |     |
| Clamping voltage <sup>1)</sup>   | $V_{CL}$  | V    | $I_{PP} = 16A, t_p = 100ns$    |     | 9    |     |
| Dynamic resistance <sup>1)</sup> | $R_{DYN}$ |      |                                |     | 0.3  |     |
| Clamping voltage <sup>2)</sup>   | $V_{CL}$  | V    | $V_{ESD} = 8kV$                |     | 9    |     |
| Clamping voltage <sup>3)</sup>   | $V_{CL}$  | V    | $I_{PP} = 1A, t_p = 8/20\mu s$ |     | 3.2  | 4.5 |
|                                  |           | V    | $I_{PP} = 5A, t_p = 8/20\mu s$ |     | 5.2  | 7   |
| Junction capacitance             | $C_J$     | pF   | $V_R = 1.5V, f = 1MHz$         |     |      | 0.5 |

### Notes:

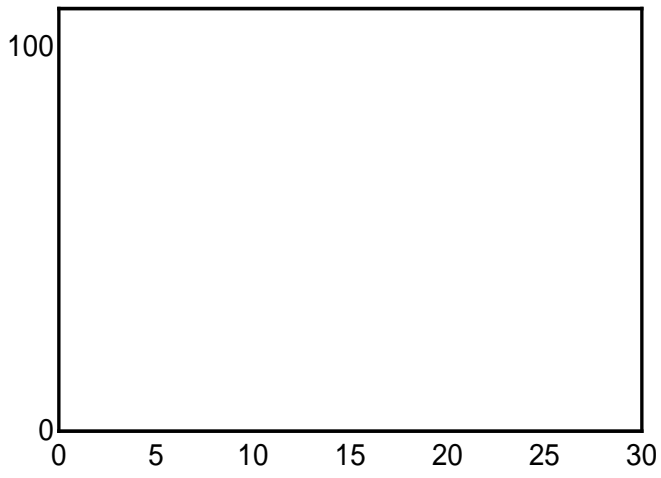
- (1). TLP parameter:  $Z_0 = 50$ ,  $t_p = 100ns$ ,  $t_r = 2ns$ , averaging window from 60ns to 80ns.  $R_{DYN}$  is calculated from 4A to 16A.
- (2). Contact discharge mode, according to IEC61000-4-2.
- (3). Non-repetitive current pulse, according to IEC61000-4-5.

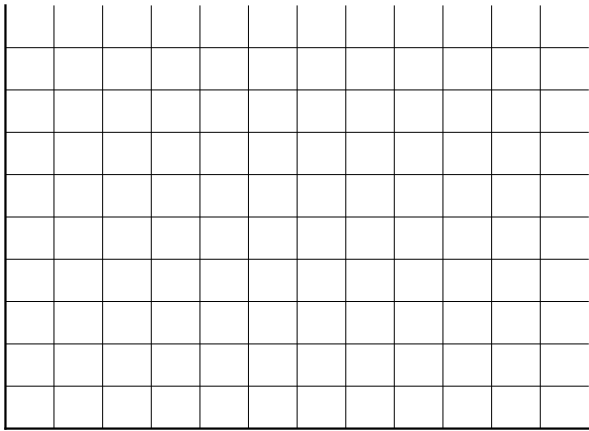
## Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(mg)  | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| VESDSL3V3LZBA | F1           | Approximate 0.18 | 10000                | 40000                   | 400000                     | 7" reel       |

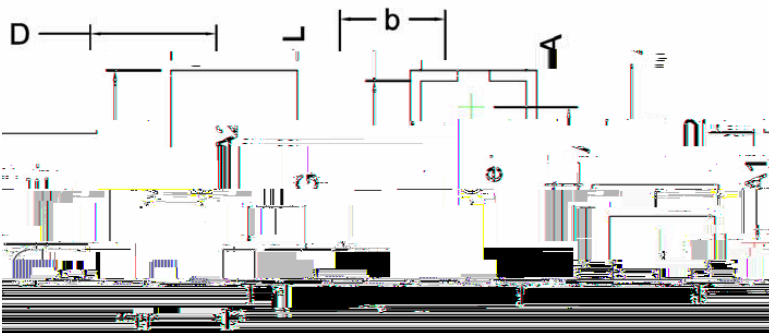


Characteristics (Typical)





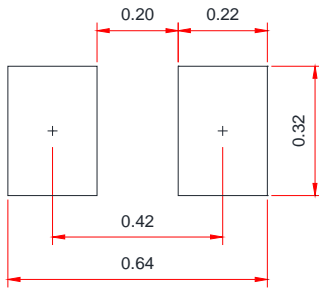
**Outline Dimensions**



| SYMBOL | MILLIMETER |      |      |
|--------|------------|------|------|
|        | MIN        | NOM  | MAX  |
| D      | 0.25       | 0.30 | 0.35 |
| E      | 0.55       | 0.60 | 0.67 |
| A      | 0.23       | 0.30 | 0.35 |
| A1     | 0.102 BSC  |      |      |
| A2     |            |      | 0.05 |
| F      | 0.005      |      |      |
| G      | 0.005      |      |      |
| L      | 0.10       | 0.17 | 0.21 |
| b      | 0.20       | 0.24 | 0.23 |
| e      | 0.36 BSC   |      |      |



## Recommended PCB Layout



Unit:mm

### Notes:

This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met



# VESDSL3V3LZBA

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