

**Features**

- Low Leakage: nA Level
- Ultra Low Capacitance
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

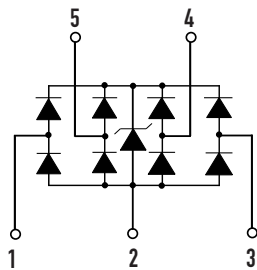
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

|                 |                |
|-----------------|----------------|
| MCC Part Number | Device Marking |
| ESD5V0PW        | 5P             |

|                            |                 |                |
|----------------------------|-----------------|----------------|
| IEC61000-4-2(ESD)          | Air Contact     | ±20KV<br>±15KV |
| Peak Pulse Current(8/20µs) | I <sub>PP</sub> | 3A             |
| Peak Pulse Power (8/20us)  | P <sub>PK</sub> | 36W            |

Note:  
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

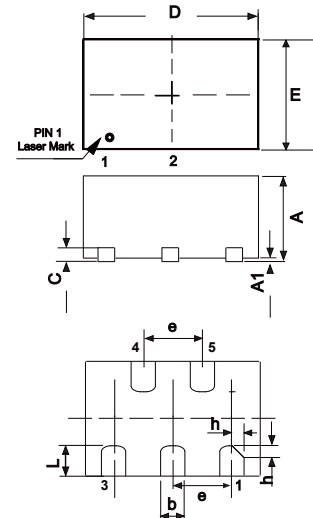
**Internal Structure**



| Pin | Identification |
|-----|----------------|
| 1   | I/O 1          |
| 2   | Ground         |
| 3   | I/O 2          |
| 4   | I/O 3          |
| 5   | I/O 4          |

**ESD Protection Device**

**DFN1308-5**



| DIM | INCHES |       | MM    |      | NOTE |
|-----|--------|-------|-------|------|------|
|     | MIN    | MAX   | MIN   | MAX  |      |
| A   | 0.012  | 0.016 | 0.30  | 0.40 |      |
| A1  | 0.000  | 0.002 | 0.00  | 0.05 |      |
| b   | 0.006  | 0.010 | 0.15  | 0.25 |      |
| C   | 0.005  |       | 0.127 |      | TYP. |
| D   | 0.047  | 0.056 | 1.20  | 1.40 |      |
| E   | 0.028  | 0.036 | 0.70  | 0.90 |      |
| e   | 0.020  |       | 0.50  |      | TYP. |
| h   | 0.004  | 0.006 | 0.10  | 0.15 |      |
| L   | 0.008  | 0.012 | 0.20  | 0.30 |      |

**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

| Parameter                 | Symbol        | Conditions  | Min. | Typ. | Max. | Units |
|---------------------------|---------------|---|------|------|------|-------|
| Reverse Working Voltage   | $V_{RWM}$     |   |      |      | 5    | V     |
| Reverse Breakdown Voltage | $V_{BR}$      | $I_T = 1\text{mA}$  | 6.5  | 7.5  | 9.0  | V     |
| Reverse Leakage Current   | $I_R$         | $V_R = 5\text{V}$   |      | 10   | 100  | nA    |
| Clamping Voltage I/O-GND  | $V_C$         | $I_{PP} = 1\text{A}$ , $t_p = 8/20\mu\text{s}$ ,<br>Pin 1,3,4,5 to 2  |      |      | 10   | V     |
| Clamping Voltage I/O-GND  | $V_C$         | $I_{PP} = 3\text{A}$ , $t_p = 8/20\mu\text{s}$ ,<br>Pin 1,3,4,5 to 2  |      |      | 12   | V     |
| Junction Capacitance      | $C_{I/O-GND}$ | $V_R = 0\text{V}$ , $f = 1\text{MHz}$ ,<br>Pin Capacitance to<br>GND. |      | 0.35 | 0.45 | pF    |
| Junction Capacitance      | $C_{I/O-I/O}$ | $V_R = 0\text{V}$ , $f = 1\text{MHz}$ ,<br>Pin Capacitance to<br>I/O. |      | 0.2  | 0.25 | pF    |

**Curve Characteristics**

Fig. 1 - 8 X 20µs Pulse Waveform

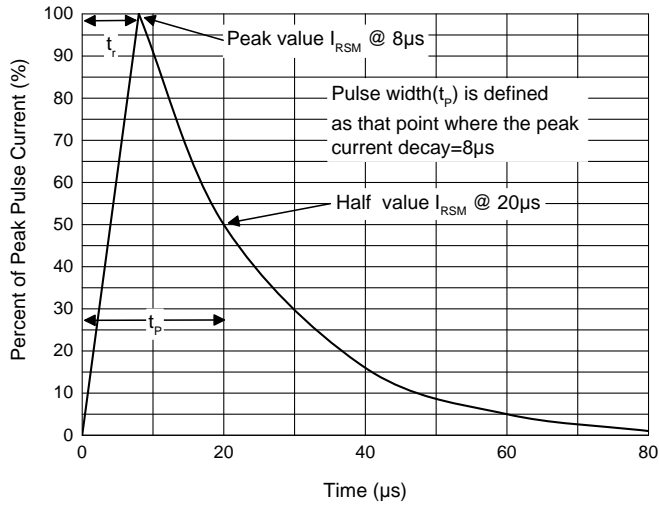
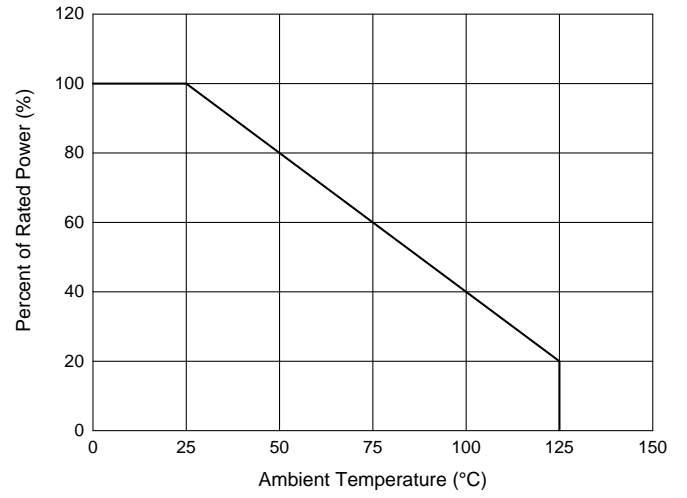


Fig. 2 - Pulse Derating Curve



## Ordering Information

| Device         | Packing               |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 5Kpcs/Reel |

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