

#### **Features**

- · Small Package Saves Board Space
- Protects Four(4) I/O Lines
- · Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- · Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

### **Maximum Ratings**

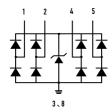
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

| MCC<br>Part Number | Device Marking |
|--------------------|----------------|
| ESDSLC0524F        | 0524F          |

| IEC61000-4-2(ESD)           | Air<br>Contact  | ±25KV<br>±20KV |
|-----------------------------|-----------------|----------------|
| IEC61000-4-5(Surge)@8/20us  | I <sub>PP</sub> | 5A             |
| Peak Pulse Power(tp=8/20us) | P <sub>PP</sub> | 150W           |

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

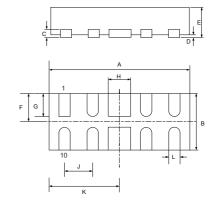
## **Pin Configuration**



| Pin      | Identification                           |  |  |
|----------|--|--|--|
| 1,2,4,5  | Input lines                              |  |  |
| 6,7,9,10 | Output Lines<br>(No Internal Connection) |  |  |
| 3,8      | Ground                                   |  |  |

# ESD Protection Device

## **DFN-10**



|       | DIMENSIONS |       |      |       |      |
|-------|------------|-------|------|-------|------|
| DIM   | INCHES     |       | MM   |       | NOTE |
| DIIVI | MIN        | MAX   | MIN  | MAX   | NOTE |
| Α     | 0.094      | 0.102 | 2.40 | 2.60  |      |
| В     | 0.035      | 0.043 | 0.90 | 1.10  |      |
| С     | 0.0        | 05    | 0.13 |       | TYP. |
| D     | 0.000      | 0.002 | 0.00 | 0.05  |      |
| Е     | 0.020      | 0.026 | 0.50 | 0.65  |      |
| F     | 0.017      | 0.022 | 0.45 | 0.55  |      |
| G     | 0.012      | 0.017 | 0.30 | 0.425 |      |
| Н     | 0.014      | 0.018 | 0.35 | 0.45  |      |
| J     | .020       |       | 0    | .5    | TYP. |
| K     | 0.047      | 0.056 | 1.20 | 1.30  |      |
| L     | 0.006      | 0.010 | 0.15 | 0.25  |      |

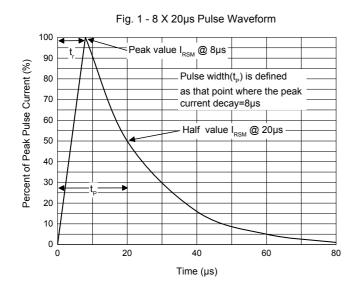


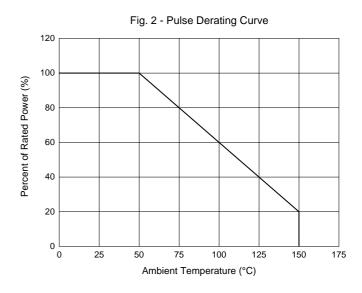
# Electrical Characteristics per line @ 25°C (Unless Otherwise Specified)

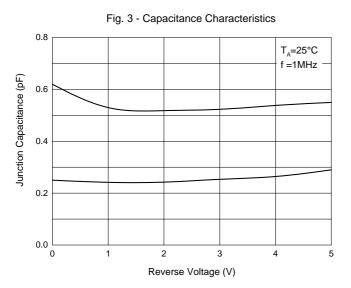
| Parameter                 | Symbol                                       | Conditions                                   | Min. | Тур.       | Max.       | Units |
|---------------------------|--|--|------|------------|------------|-------|
| Reverse stand-off Voltage | $V_{RWM}$                                    | Any I/O Pin to GND                           |      |            | 5          | V     |
| Reverse Breakdown Voltage | $V_{BR}$                                     | I <sub>t</sub> =1mA,<br>Any I/O Pin to GND   | 6.1  |            | 9.6        | V     |
| Reverse Leakage Current   | I <sub>R</sub>                               | V <sub>RWM</sub> =5V,<br>Any I/O Pin to GND  |      |            | 0.9        | μА    |
| Forward Voltage           | V <sub>F</sub>                               | I <sub>F</sub> =15mA,<br>GND to any I/O Pins |      |            | 1.15       | V     |
| Clamping Voltage          | V <sub>C</sub>                               | I <sub>PP</sub> =1A, t <sub>P</sub> =8/20μs  |      |            | 15         | V     |
| Junction Capacitance      | C <sub>I/O-GND</sub><br>C <sub>I/O-I/O</sub> | $V_{PIN1,2,4,5}=5V,$ $V_{PIN3,8}=0V,f=1MHz$  |      | 0.6<br>0.3 | 0.8<br>0.4 | pF    |

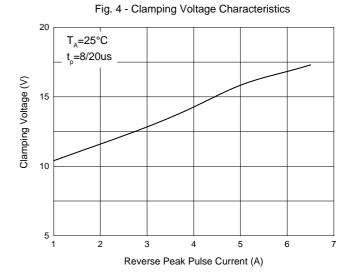


#### **Curve Characteristics**











### **Ordering Information**

| Device         | Packing               |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

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