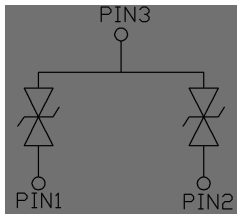




## CAN-FD bus ESD protection diode



SOT-23



## Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- Dual Line CAN-FD Bus Protector for SOT-23 Package
- Max Peak Pulse Power 180W per Line (tp=8/20 μs)
- IEC 61000-4-2, level 4 (ESD)
- IEC 61000-4-5 (surge), I<sub>PP</sub> = 5A at tp = 8/20 μs
- Part no. with suffix "Q" means AEC-Q101 qualified

## Applications

- Automotive Controlled Area Network

## Mechanical Data

- **Case:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings (T<sub>a</sub>=25

|                                         |                  |    |    |
|-----------------------------------------|------------------|----|----|
|                                         |                  |    |    |
|                                         |                  |    |    |
|                                         |                  |    |    |
| HBM Note2                               | V <sub>ESD</sub> | kV | 30 |
| IEC 61000-4-2 (contact discharge) Note2 |                  | kV | 30 |

Note1 Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC 61000-4-5.

Note2 Measured from pin 1 to 3 or 2 to 3.

■ Electrical Characteristics (T<sub>a</sub>=25 unless otherwise noted)

| ITEM                      | SYMBOL           | UNIT | CONDITIONS            | MIN. | TYP. | MAX. |
|---------------------------|------------------|------|-----------------------|------|------|------|
| Reverse Working Voltage   | V <sub>RWM</sub> | V    |                       | -    | -    | 24   |
| Reverse Breakdown Voltage | V <sub>BR</sub>  | V    | I <sub>r</sub> =1mA   | 25.5 |      | 35.5 |
| Reverse Leakage Current   | I <sub>R</sub>   | nA   | V <sub>RWM</sub> =24V | -    | 1    | 50   |

Clamping Voltage(pin 1 to 3 or 2 to 3) ) c

|  |   |    |                            |   |   |    |
|--|---|----|----------------------------|---|---|----|
|  | j | pF | V <sub>R</sub> =0V, f=1MHZ | - | 6 | 10 |
|--|---|----|----------------------------|---|---|----|

Notes:

(1). Non-repetitive current pulse, according to IEC61000-4-5.

(2). TLP parameter: Z<sub>0</sub> = 50Ω, tp = 100ns, tr = 2ns, averaging window from 60ns to 80ns. RDYN is calculated from 4A to 16A.



## ■ Ordering Information (Example)

| PREFERRED P/N  | PACKING CODE | UNIT WEIGHT(g)   | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| ESD2CANFD24T2Q | F2           | Approximate 0.01 | 3000                 | 30000                   | 120000                     | 7" reel       |

## Ω Characteristics (Typical)

Fig.1: 8/20μs Pulse Waveform

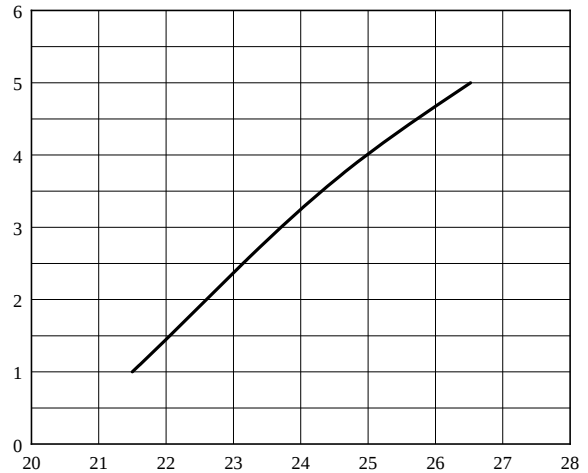
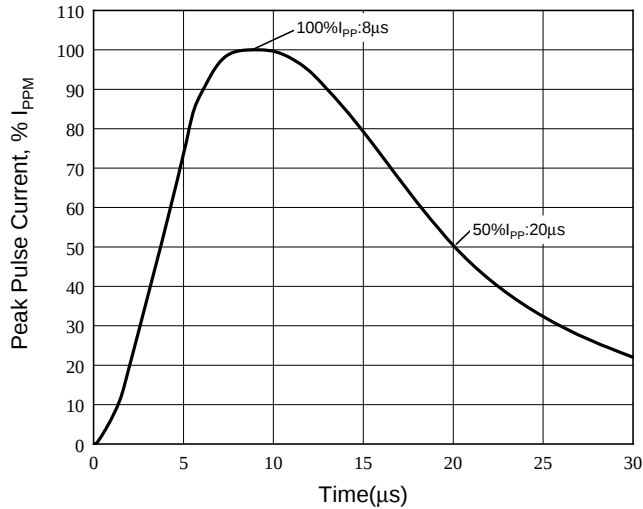
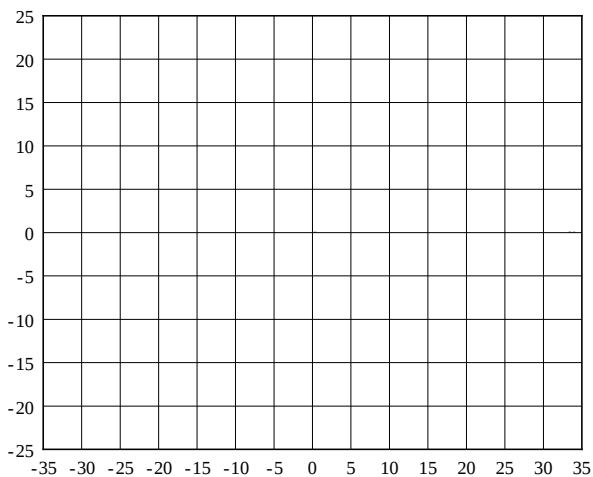
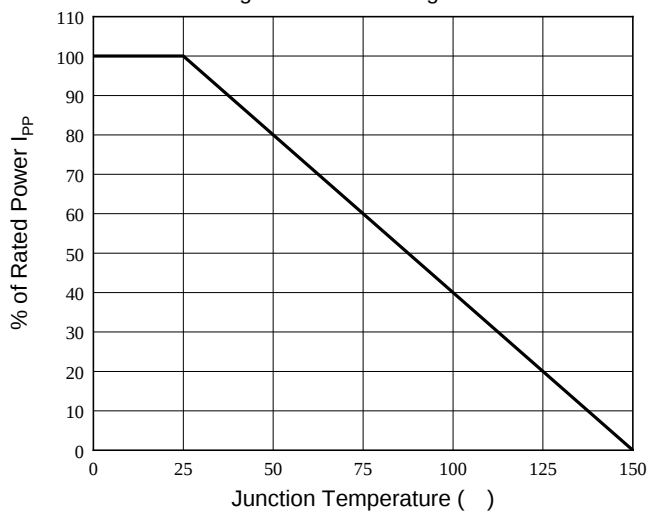
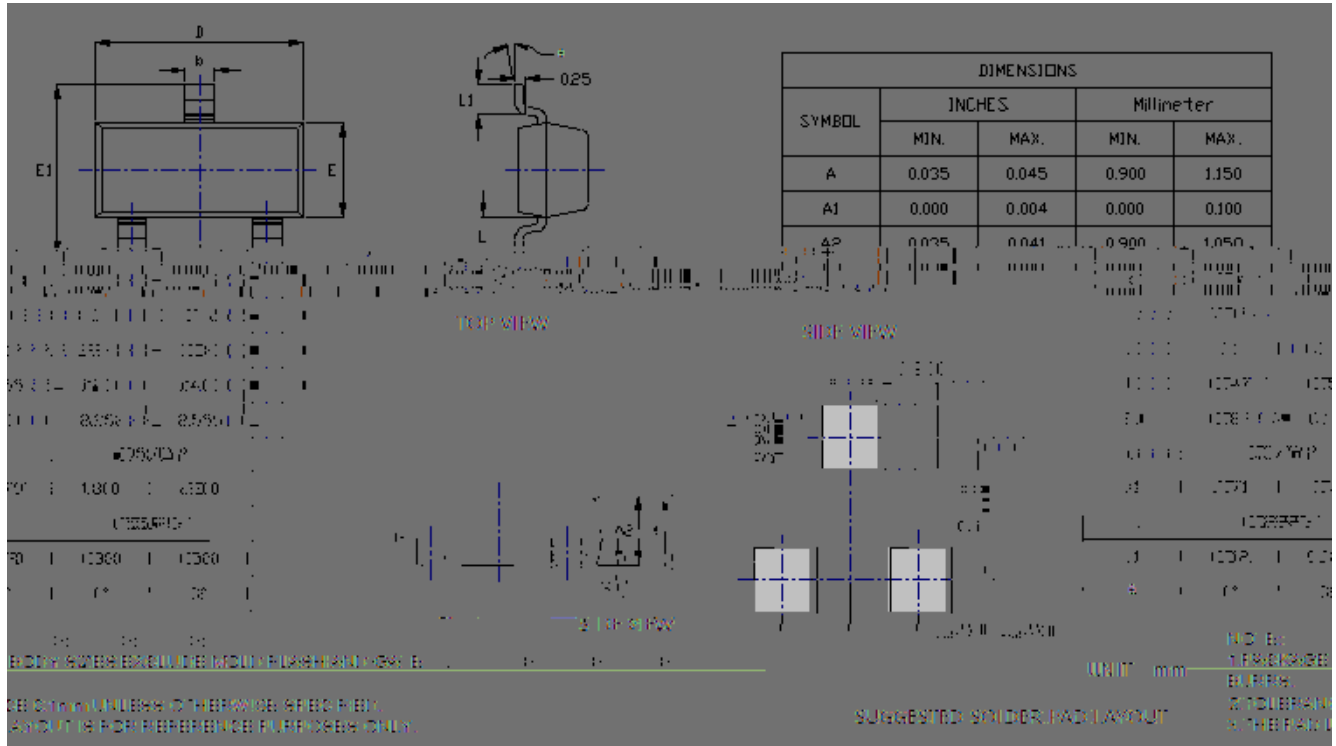


Fig.3: Power Derating Curve



## Ω Outline Dimensions



## ■ Marking Information



### Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. Body color: Black



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Disclaimer

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