

T10A SIDACtor® Device



The bi-directional T10A devices are a through-hole technology *SIDACtor* protector. It is intended for cost-sensitive telecommunication applications. This T10 *SIDACtor* series enables equipment to comply with various regulatory requirements including GR 1089, ITU K.20, K.21, and K.45, IEC 60950, UL 60950, and TIA-968-A (formerly known as FCC Part 68).

SIDACtor Devices

Electrical Parameters

| Part Number * | V _{DRM} @ 5 μ A Volts | V _S Volts | V _T Volts | I _S mAmps | I _H mAmps | pF TYP |
|---------------|------------------------------------|----------------------|----------------------|----------------------|----------------------|--------|
| T10A060B | 58 | 80 | 4 | 800 | 120 | 50 |
| T10A060E | 58 | 80 | 4 | 800 | 180 | 50 |
| T10A062 | 60 | 82 | 4 | 800 | 150 | 50 |
| T10A068 | 65 | 90 | 4 | 800 | 150 | 50 |
| T10A080B | 75 | 120 | 4 | 800 | 120 | 43 |
| T10A080E | 75 | 120 | 4 | 800 | 180 | 43 |
| T10A100 | 100 | 133 | 4 | 800 | 150 | 43 |
| T10A110B | 110 | 135 | 4 | 800 | 120 | 38 |
| T10A110E | 110 | 135 | 4 | 800 | 180 | 38 |
| T10A120 | 120 | 160 | 4 | 800 | 150 | 38 |
| T10A130 | 130 | 173 | 4 | 800 | 150 | 38 |
| T10A140B | 140 | 170 | 4 | 800 | 120 | 34 |
| T10A140E | 140 | 170 | 4 | 800 | 180 | 34 |
| T10A180 | 180 | 240 | 4 | 800 | 150 | 34 |
| T10A180B | 175 | 210 | 4 | 800 | 120 | 32 |
| T10A180E | 175 | 210 | 4 | 800 | 180 | 32 |
| T10A200 | 200 | 267 | 4 | 800 | 150 | 30 |
| T10A220 | 220 | 293 | 4 | 800 | 150 | 30 |
| T10A220B | 215 | 265 | 4 | 800 | 120 | 30 |
| T10A220E | 215 | 265 | 4 | 800 | 180 | 30 |
| T10A240 | 240 | 320 | 4 | 800 | 150 | 30 |
| T10A270 | 270 | 360 | 4 | 800 | 150 | 30 |
| T10A270B | 270 | 360 | 4 | 800 | 120 | 30 |
| T10A270E | 270 | 360 | 4 | 800 | 180 | 30 |

* For surge ratings, see table below.

General Notes:

- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- Listed *SIDACtor* devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- V_{DRM} is measured at I_{DRM}.
- V_S is measured at 0.5 V/ μ s.
- Special voltage (V_S and V_{DRM}) and holding current (I_H) requirements are available upon request.


Surge Ratings in Amps

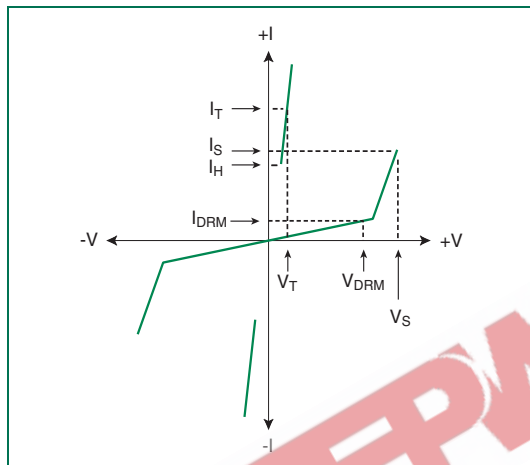
| Series | I _{PP} | | | I _{TSM} 50 / 60 Hz Amps | di/dt Amps/ μ s |
|--------|-----------------------------|------------------------------|---------------------------------|--|------------------------|
| | 8x20 * 1.2x50 ** Amps | 5x310 * 10x700 ** Amps | 10x1000 * 10x1000 ** Amps | | |
| A | 100 | 37.5 | 50 | 30 | 100 |

* Current waveform in μ s

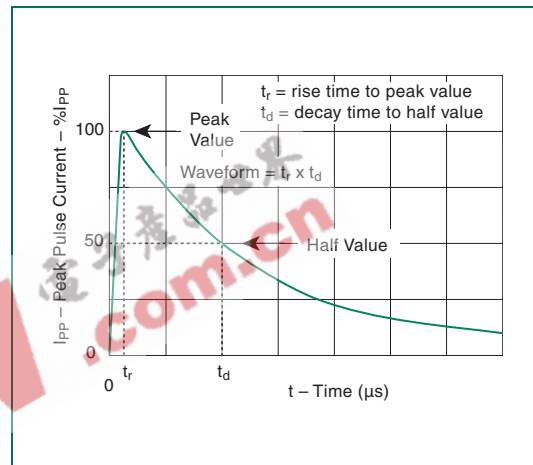
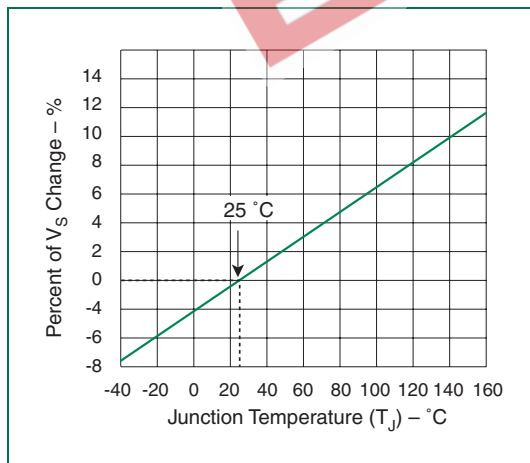
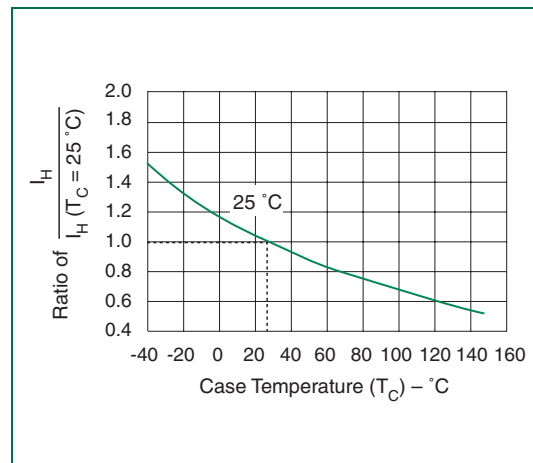
** Voltage waveform in μ s

Thermal Considerations

| Package | Symbol | Parameter | Value | Unit |
|---|-----------------|---|-------------|------|
|  DO-15 | T_J | Operating Junction Temperature Range | 150 | °C |
| | T_S | Storage Temperature Range | -40 to +150 | °C |
| | $R_{\theta JA}$ | Thermal Resistance: Junction to Ambient | 60 | °C/W |



V-I Characteristics


 $t_r \times t_d$ Pulse Waveform

 Normalized V_S Change versus Junction Temperature


Normalized DC Holding Current versus Case Temperature