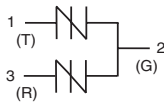


T10C *SIDACtor*[®] Device



The bi-directional T10C devices are a through-hole technology *SIDACtor* protector. It is intended for cost-sensitive telecommunication applications. The three-terminal configuration matches G.D.T. pin configuration; for plug-in applications, the T10C fits in the KRONE™ three-point connector block (5B).

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).

For primary protection applications, integrated failsafe options are available.

SIDACtor Devices

Electrical Parameters

| Part Number * | V _{DRM} @ 5 μA Volts | V _S Volts | V _T Volts | I _S mAmps | I _H mAmps | pF Pin 1-2 / 3-2 Tip-Ground, Ring-Ground TYP | pF Pin 1-3 Tip-Ring TYP |
|---------------|----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---|----------------------------------|
| T10C080B | 80 | 120 | 4 | 800 | 120 | 110 | 61 |
| T10C080E | 80 | 120 | 4 | 800 | 180 | 110 | 61 |
| T10C110B | 105 | 135 | 4 | 800 | 120 | 90 | 51 |
| T10C110E | 105 | 135 | 4 | 800 | 180 | 90 | 51 |
| T10C140B | 140 | 170 | 4 | 800 | 120 | 83 | 48 |
| T10C140E | 140 | 170 | 4 | 800 | 180 | 83 | 48 |
| T10C180B | 175 | 210 | 4 | 800 | 120 | 77 | 44 |
| T10C180E | 175 | 210 | 4 | 800 | 180 | 77 | 44 |
| T10C220B | 214 | 265 | 4 | 800 | 120 | 74 | 42 |
| T10C220E | 214 | 265 | 4 | 800 | 180 | 74 | 42 |
| T10C270B | 270 | 360 | 4 | 800 | 120 | 68 | 38 |
| T10C270E | 270 | 360 | 4 | 800 | 180 | 68 | 38 |

* For failsafe option, add "F" at end of part number. See Section 9, "Mechanical Data" for mechanical view of failsafe option. 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} across Pins 1-2 / 3-2.
- V_S is measured at 0.5 V/μs across Pins 1-2 / 3-2.
- Special voltage (V_S and V_{DRM}) and holding current (I_H) requirements are available upon request.

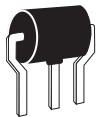
Surge Ratings in Amps

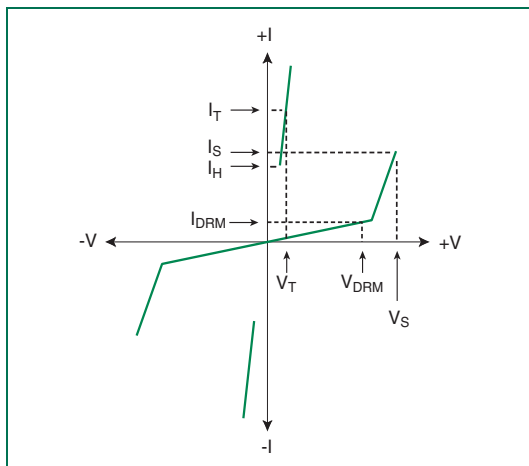
| Series | I _{PP} | | | I _{TSM} 50 / 60 Hz Amps | di/dt Amps/μs |
|--------|---------------------|----------------------|-------------------------|--|------------------|
| | 8x20 * 1.2x50 ** | 5x310 * 10x700 ** | 10x1000 * 10x1000 ** | | |
| | Amps | Amps | Amps | Amps | Amps/μs |
| C | 250 | 125 | 100 | 50 | 100 |

* Current waveform in μs

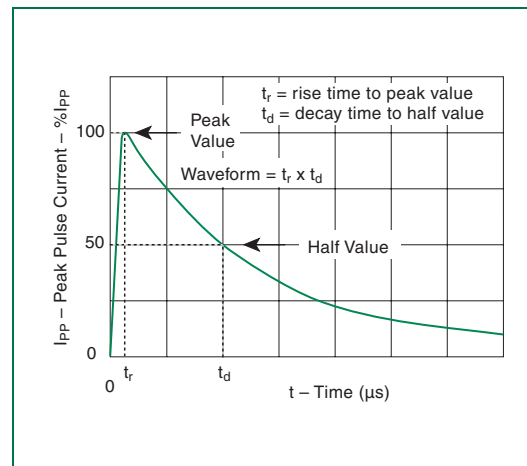
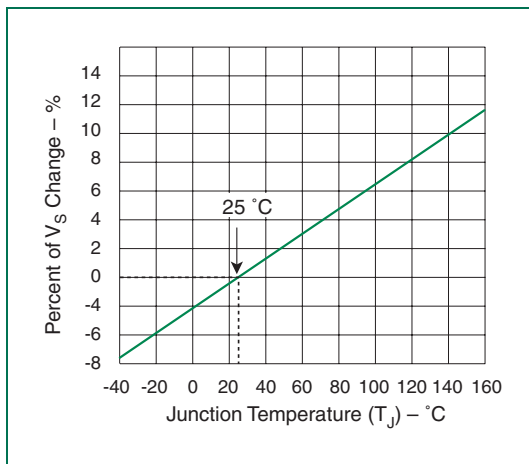
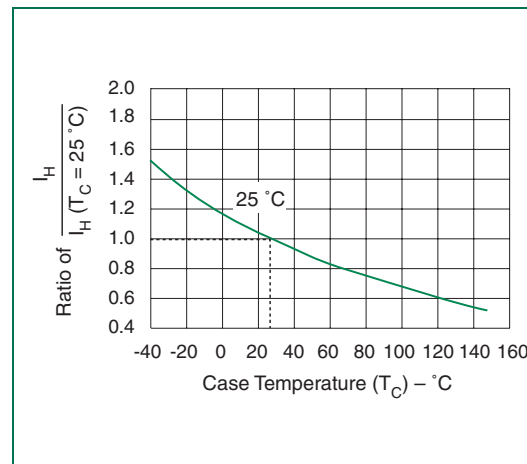
** Voltage waveform in μs

Thermal Considerations

| Package | Symbol | Parameter | Value | Unit |
|---|-----------------|---|-------------|------|
|  [T10C] | 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