

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## T10B SIDACtor® Device







The bi-directional T10B 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).

#### **Electrical Parameters**

Part Number *	V <sub>DRM</sub> @ 5 μA Volts	V <sub>S</sub> Volts	V <sub>T</sub> Volts	I <sub>S</sub> mAmps	I <sub>H</sub> mAmps	pF TYP
T10B080B	80	120	4	800	120	60
T10B080E	80	120	4	800	180	60
T10B110B	105	135	4	800	120	55
T10B110E	105	135	4	800	180	55
T10B140B	140	170	4	800	120	48
T10B140E	140	170	4	800	180	48
T10B180B	175	210	4	800	120	44
T10B180E	175	210	4	800	180	44
T10B220B	214	265	4	800	120	41
T10B220E	214	265	4	800	180	41
T10B270B	270	360	4	800	120	36
T10B270E	270	360	4	800	180	36

<sup>\*</sup> For surge ratings, see table below.

#### General Notes:

- All measurements are made at an ambient temperature of 25 °C. I<sub>PP</sub> applies to -40 °C through +85 °C temperature range.
- IPP 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<sub>DRM</sub> is measured at I<sub>DRM</sub>.
- V<sub>S</sub> is measured at 0.5 V/μs.
- Special voltage (V<sub>S</sub> and V<sub>DRM</sub>) and holding current (I<sub>H</sub>) requirements are available upon request.

#### Surge Ratings in Amps

		I <sub>PP</sub>		di/dt	
	8x20 * 1.2x50 **	5x310 * 10x700 **			
Series	Amps	Amps	Amps	Amps	Amps/μs
В	250	125	100	50	100

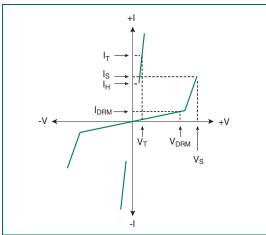
<sup>\*</sup> Current waveform in µs

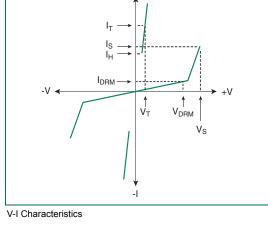
<sup>\*\*</sup> Voltage waveform in µs



### **Thermal Considerations**

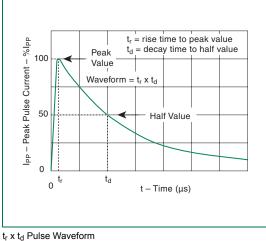
Package	Symbol	Parameter	Value	Unit
DO-201AD	$T_J$	Operating Junction Temperature Range	150	°C
	T <sub>S</sub>	Storage Temperature Range	-40 to +150	°C
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	60	°C/W





14 12 Percent of V<sub>S</sub> Change – % 10 8 6 25 °C 4 2 0 -4 -6 -8 0 20 40 60 80 100 120 140 160 Junction Temperature  $(T_J) - {}^{\circ}C$ 

Normalized V<sub>S</sub> Change versus Junction Temperature



 $I_{H} (T_{C} = 25 \, ^{\circ}C)$ 1.6 1.4 25 °C 1.2 1.0 Ratio of 0.8 0.6 0.4 -40 -20 0 20 40 60 80 100 120 140 160 Case Temperature  $(T_C) - {^{\circ}C}$ 

2.0

1.8

Normalized DC Holding Current versus Case Temperature