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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CATV Line Amplifiers/Power Inserters 3 kA *SIDACtor*® Device

RoHS

Littelfuse

This *SIDACtor* device is a 3000 A solid state protection device offered in a non-isolated TO-263 (D^2) package. It protects equipment located in the severe surge environment of CATV (Community Antenna TV) systems and antenna locations.

Electrical Parameters

Part Number *	V_{DRM} Volts	V_S Volts	V_T Volts	I_{DRM} µAmps	I_S mAmps	I_T Amps **	I_H mAmps
P1500NEL	140	180	4	5	800	2.2/25	50
P1900NEL	140	220	4	5	800	2.2/25	50
P2300NEL	180	260	4	5	800	2.2/25	50

* **"L" in part number indicates RoHS compliance.** For non-RoHS compliant device, delete "L" from part number. For surge ratings, see table below.

** I_T is a free air rating; heat sink I_T rating is 25 A.

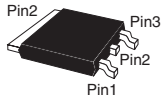
General Notes:
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- Listed *SIDACtor* devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- V_{DRM} is measured at I_{DRM}.
- V_S is measured at 100 V/µs.
- Special voltage (V_S and V_{DRM}) and holding current (I_H) requirements are available upon request.

Surge Ratings in Amps

Series	I_{PP} 8x20 * 1.2x50 ** Amps	I_{TSM} 50 / 60 Hz Amps	di/dt Amps/µs
E	3000	400	500

* Current waveform in µs
** Voltage waveform in µs

Thermal Conditions

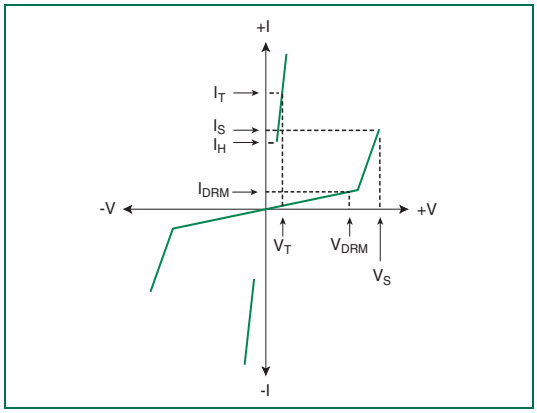
Package	Symbol	Parameter	Value	Unit
TO-263 D²PAK 	T_J	Operating Junction Temperature Range	-40 to +150	°C
	T_S	Storage Temperature Range	-65 to +150	°C
	T_C	Maximum Case Temperature	100	°C
	$R_{\theta JC}$ *	Thermal Resistance: Junction to Case	1.7	°C/W
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	56	°C/W

* $R_{\theta JC}$ rating assumes the use of a heat sink and on state mode for extended time at 25 A, with average power dissipation of 29.125 W.

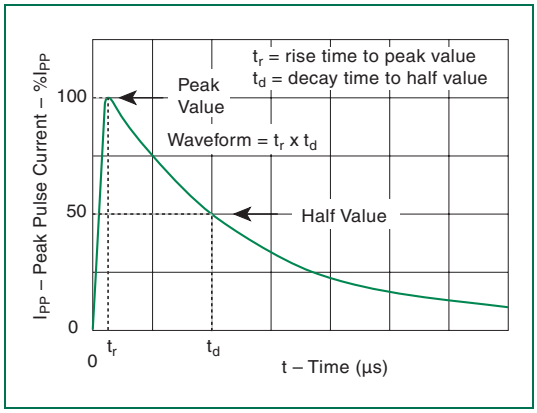
Capacitance Values

Part Number	pF	
	MIN	MAX
P1500NEL	260	650
P1900NEL	260	650
P2300NEL	350	600

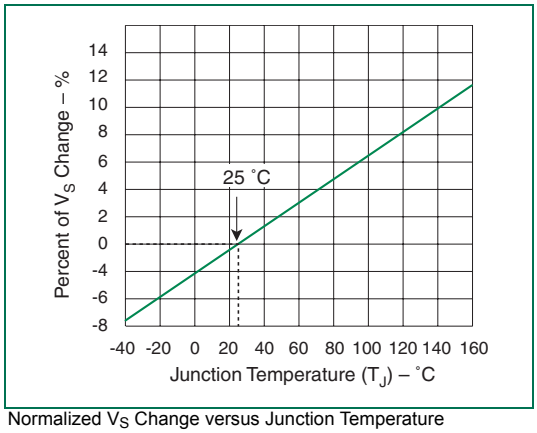
Note: Off-state capacitance (C_O) is measured at 1 MHz with a 2 V bias.



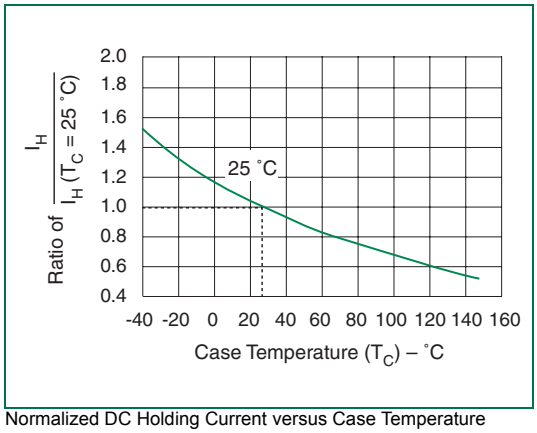
V-I Characteristics



t_r x t_d Pulse Waveform



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

