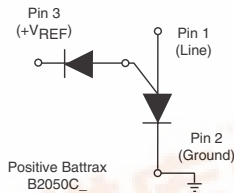
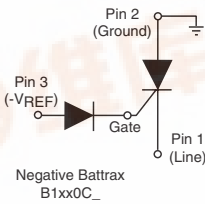


Batrax® SLIC Protector

RoHS

Littelfuse®



The *Batrax* SLIC protector is offered in a negative *Batrax* version and a positive *Batrax* version. The B1xx0C_ is for a $-V_{REF}$ and the B2050C_ is for a $+V_{REF}$. Designed using an SCR and a gate diode, the B1xx0C_ *Batrax* begins to conduct at $|-V_{REF}| + |-1.2 V|$ while the B2050C_ *Batrax* begins to conduct at $|+V_{REF}| + |1.2 V|$.

Electrical Parameters

Part Number *	V_{DRM} Volts	V_S Volts	V_T Volts	I_{DRM} μ Amps	I_{GT} mAmps	I_T Amps	I_H mAmps
B1100C_L	$ -V_{REF} + -1.2 V $	$ -V_{REF} + -10 V $	4	5	100	2.2	100
B1160C_L	$ -V_{REF} + -1.2 V $	$ -V_{REF} + -10 V $	4	5	100	2.2	160
B1200C_L	$ -V_{REF} + -1.2 V $	$ -V_{REF} + -10 V $	4	5	100	2.2	200

Part Number *	V_{DRM} Volts	V_S Volts	V_T Volts	I_{DRM} μ Amps	I_{GT} mAmps	I_T Amps	I_H mAmps
B2050C_L	$ +V_{REF} + 1.2 V $	$ +V_{REF} + 10 V $	4	5	50	2.2	5

* "L" in part number indicates RoHS compliance. For non-RoHS compliant device, delete "L" from part number.
For individual "CA" and "CC" 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.
- I_{PP} ratings assume $V_{REF} = \pm 48 V$.
- V_{DRM} is measured at I_{DRM} .
- V_S is measured at 100 V/ μ s.
- Positive *Batrax* information is preliminary data.
- V_{REF} maximum value for the negative *Batrax* is -200 V.
- V_{REF} maximum value for the positive *Batrax* is 110 V.

Surge Ratings in Amps

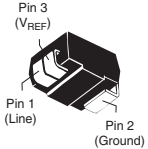
Series	I_{PP}									I_{TSM} 50 / 60 Hz	di/dt
	0.2x310 * 0.5x700 **	2x10 * 2x10 **	8x20 * 1.2x50 **	10x160 * 10x160 **	10x560 * 10x560 **	5x320 * 9x720 **	10x360 * 10x360 **	10x1000 * 10x1000 **	5x310 * 10x700 **		
	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps/ μ s
A	20	150	150	90	50	75	75	45	75	20	500
C	50	500	400	200	150	200	175	100	200	50	500

* Current waveform in μ s

** Voltage waveform in μ s



Thermal Considerations

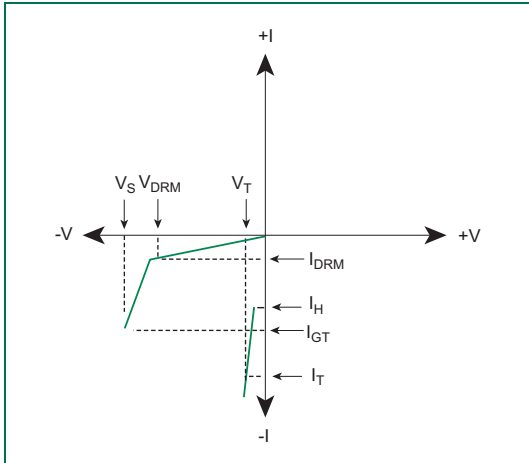
Package	Symbol	Parameter	Value	Unit
Modified DO-214AA 	T _J	Operating Junction Temperature Range	-40 to +150	°C
	T _S	Storage Temperature Range	-65 to +150	°C
	R _{θJA}	Thermal Resistance: Junction to Ambient	85	°C/W

Capacitance Values

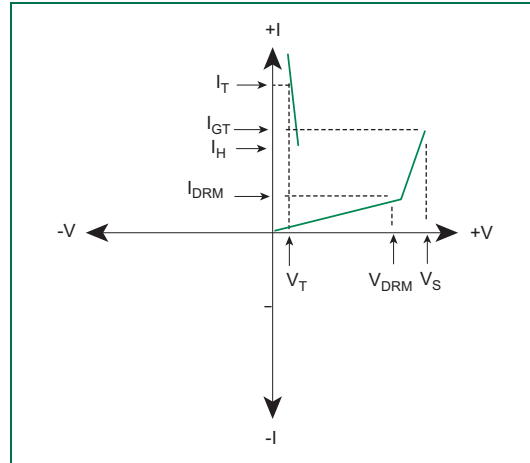
Part Number	pF	
	MIN	MAX
B1100CAL	50	200
B1100CCL	50	200
B1160CAL	50	200
B1160CCL	50	200
B1200CAL	50	200
B1200CCL	50	200
B2050CAL	50	200
B2050CCL	50	200

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

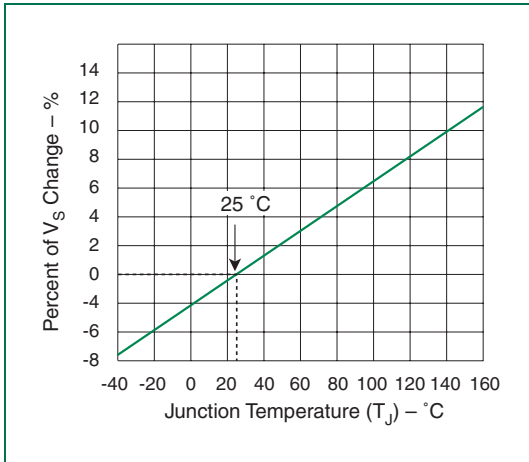
SIDACtor Devices



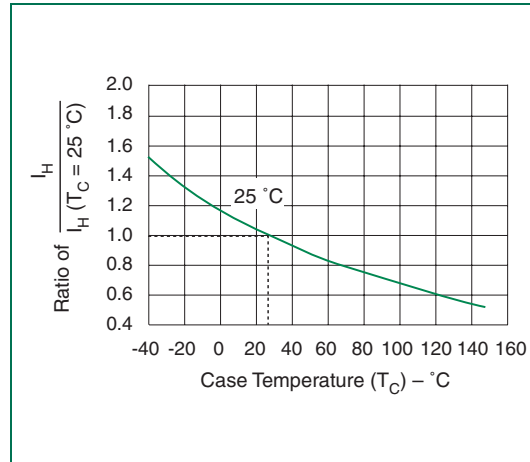
V-I Characteristics for Negative Batrax



V-I Characteristics for Positive Batrax



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature