

Features

- Miniature Thermal Cutoff (TCO) device
- Smallest body size, high current type
- Overtemperature and overcurrent protection for lithium polymer and prismatic cells
- Controls abnormal, excessive current instantaneously
- Wide range of temperature options

Applications

Battery cell protection for:

- Notebook PCs
- Tablet PCs
- Smart phones
- Mobile phones

NR Series Breaker (Thermal Cutoff Device)

Ratings

Specification	A-TYPE				
	NR72AB0	NR77AB0	NR82AB0	NR85AB0	
Trip Temperature	72 °C ± 5 °C	77 °C ± 5 °C	82 °C ± 5 °C	85 °C ± 5 °C	
Reset Temperature	40 °C min.				
Contact Rating	DC12V / 25 A, 6000 cycles				
Maximum Breaking Current	DC5V / 60 A, 100 cycles				
Maximum Voltage	DC28V / 25 A, 100 cycles				
Minimum Holding Voltage	2 V @ 25 °C for 1 minute				
Maximum Leakage Current	200 mA max. @ 25 °C				
Resistance	5 milliohms max.				

Specification	C-TYPE				
	NR72CB0	NR77CB0	NR82CB0	NR85CB0	
Trip Temperature	72 °C ± 5 °C	77 °C ± 5 °C	82 °C ± 5 °C	85 °C ± 5 °C	
Reset Temperature	40 °C min.				
Contact Rating	DC12V / 12 A, 6000 cycles				
Maximum Breaking Current	DC5V / 30 A, 100 cycles				
Maximum Voltage	DC28V / 12 A, 100 cycles				
Minimum Holding Voltage	2 V @ 25 °C for 1 minute				
Maximum Leakage Current	150 mA max. @ 25 °C				
Resistance	15 milliohms max.				



Agency Recognition

Description				
UL, cUL	File Number: E215638			
TUV	File Number: R50281578			

How to Order



**

RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (CI) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (CI) content is 1500 ppm or less. Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

NR Series Breaker (Surface Mount Thermal Cutoff Device)

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Typical Performance



The above curves were derived from placing test samples in an oven at 25 $^{\circ}$ C, 40 $^{\circ}$ C, 60 $^{\circ}$ C and 70 $^{\circ}$ C, increasing current flow through the sample at a rate of 0.1 A/minute and recording the current value when the sample trips.

Operation



VERY LOW CURRENT