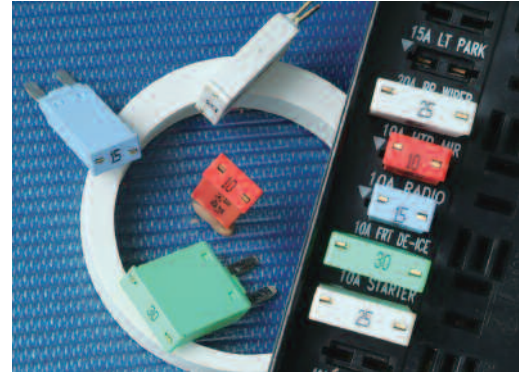


## Raychem BD280 Bladed Contact Resettable Overcurrent Protection



Feature:	Function:	Benefit:
2.8mm terminals	Directly replaces mini-sized automotive fuses and circuit breakers	Easy to implement, reliable solid state resettable overcurrent protection
Latches on first trip	No cycling into short or overload	Reduces fault energy delivered to the wiring and loads
PTC resistance switching action	No contacts to erode or weld together	Longer, safer performance life
Constant wattage power dissipation when tripped	Virtually constant power consumption across voltage range 4V to 16V	No burn out at maximum voltage No drop out at minimum voltage
Solid state construction	Very high resistance to shock and vibration	Not subject to change in calibration due to rough handling or high shock and vibration
Probe points	Easier diagnostics	Facilitates fault finding
Bright color coded housing	Easily recognizable current rating	Less chance of mis-installation Color recognition inspection possible
Low thermal derating	Passes more current at higher temperatures than bi-metal circuit breakers	Offers resettable overcurrent protection even in vehicle underhood applications

### Applications:

Harness wire	12V power outlets
Electric motors	Automotive and heavy truck circuit protection

### Electrical Characteristics:

Nominal Operating Voltage:	14V
Maximum Operating Voltage:	16V
Current Ratings:	10A, 15A, 20A, 25A, 30A
Cycle Life:	1,000 cycles @ 100A fault current
Trip Endurance:	1,000 hours @ 14V
Load Dump:	Per ISO 7337-1

### Interrupt Current and Voltage Drop:

Current Ratings	Wire size	I interrupt*	max. mV drop
10A	2 mm <sup>2</sup> (14AWG)	225A	180mV
15A	2 mm <sup>2</sup> (14AWG)	300A	160mV
20A	2.5 mm <sup>2</sup> (12AWG)	450A	135mV
25A	2.5 mm <sup>2</sup> (12AWG)	450A	115mV
30A	2.5 mm <sup>2</sup> (12AWG)	450A	105mV

Meets or exceeds SAE J553

\* Tested to 5 cycles

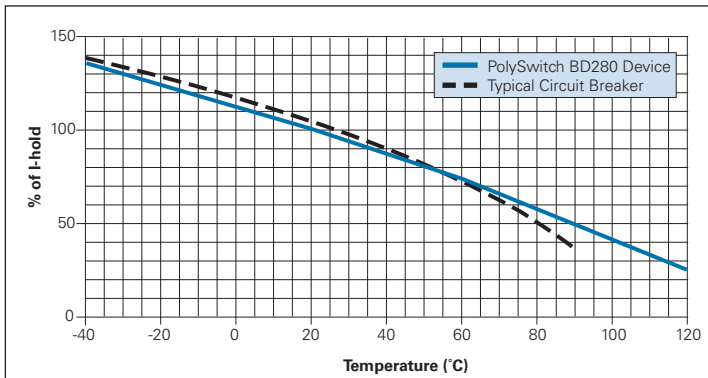
### Environmental Specifications:

Operating Temperature:	-40°C to +125°C
Vibration:	Meets or exceeds SAE J553
Mechanical Shock:	Meets or exceeds SAE J553
Thermal Shock:	Meets or exceeds SAE J553
Humidity:	Meets or exceeds SAE J553
Cap Retention:	90N (20lbf)

### Materials:

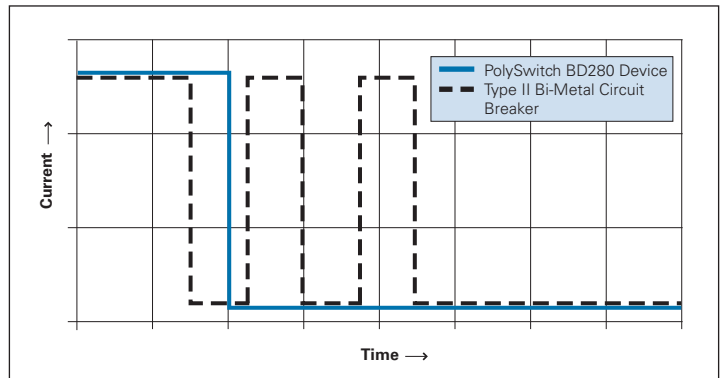
Box Material:	PBT meeting ULV-0 requirements
Terminal Material:	Brass with Tin over Nickel plating

## Thermal Derating



PolySwitch bladed devices exhibit much less roll-off at high temperatures which allow for their use in underhood applications.

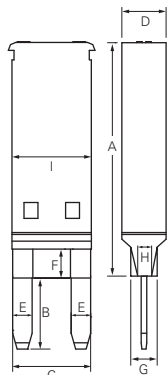
## Trip Characteristics



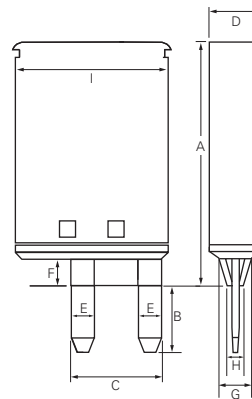
PolySwitch BD280 device latches after the first overcurrent trip, whereas Type II bi-metal circuit breakers typically cycle several times.

## Part Numbers, Styles and Dimensions

Part Number	Current Rating	Body Style	mm Min/Max (inch approx.)								
			A	B	C	D	E(x2)	F	G	H	I
BD280-1130-10/16	10A	1	29.5/30.1 (1.173/1.185)	8.7/9.3 (0.343/0.366)	10.75/11.25 (0.423/0.443)	6.05/6.65 (0.238/0.262)	2.55/3.05 (0.1/0.12)	3.3/3.9 (0.13/0.154)	3.4/4 (0.134/0.157)	1.7/2.3 (0.067/0.091)	10.9/11.5 (0.429/0.453)
BD280-1130-15/16	15A	1	29.5/30.5 (1.173/1.185)	8.7/9.3 (0.343/0.366)	10.75/11.25 (0.423/0.443)	6.05/6.65 (0.238/0.262)	2.55/3.05 (0.1/0.12)	3.3/3.9 (0.13/0.154)	3.4/4 (0.134/0.157)	1.7/2.3 (0.067/0.091)	10.9/11.5 (0.429/0.453)
BD280-1130-20/16	20A	1	29.5/30.1 (1.173/1.185)	8.7/9.3 (0.343/0.366)	10.75/11.25 (0.423/0.443)	6.05/6.65 (0.238/0.262)	2.55/3.05 (0.1/0.12)	3.3/3.9 (0.13/0.154)	3.4/4 (0.134/0.157)	1.7/2.3 (0.067/0.091)	10.9/11.5 (0.429/0.453)
BD280-1927-25/16-W	25A	2	26.65/27.35 (1.049/1.077)	8.6/9.2 (0.339/0.362)	10.75/11.25 (0.423/0.443)	6.05/6.65 (0.238/0.262)	2.55/3.05 (0.1/0.12)	1.8/2.2 (0.071/0.087)	3.5/3.9 (0.138/0.154)	1.7/2.3 (0.067/0.091)	19/19.4 (0.748/0.764)
BD280-1927-30/16-W	30A	2	26.65/27.35 (1.049/1.077)	8.6/9.2 (0.339/0.362)	10.75/11.25 (0.423/0.443)	6.05/6.65 (0.238/0.262)	2.55/3.05 (0.1/0.12)	1.8/2.2 (0.071/0.087)	3.5/3.9 (0.138/0.154)	1.7/2.3 (0.067/0.091)	19/19.4 (0.748/0.764)



Body Style 1



Body Style 2

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