

Bussmann TCP70 Series

70Vdc Telecom fuses



Product description

Designed to UL 248 and UL 248-14, the Bussmann TCP70 Series of telecommunication fuses withstand the wide variations in application environments while delivering reliable circuit protection.

The fuses have breaking characteristics similar to a circuit breaker while providing a much more economical solution.

- Halogen free, lead free, RoHS compliant
- Special design telecom circuit protection devices
- High inrush current withstanding capability reduces nuisance openings
- Fuseclip assembly method
- Rugged ceramic construction
- Excellent environmental integrity
- One time positive disconnect

Agency information

- cURus Recognized Guide JDXY2, JDXY8, File E19180

Part number system/ordering

BK1/ TCP70- 5 -R

- BK1/ = 1000 fuses packed in a cardboard carton
- TCP70- = Fuse series
- 5 = Amp rating
- -R = RoHS compliant

Applications

- Telecommunication DC voltage circuits

Bussmann
by **EAT•N**



The Bussmann brand of circuit protection products (formerly of the Bussmann Division of Cooper Industries) is now part of Eaton's Electrical Group, Electronics Division.

Bussmann is now part of Eaton
Same great products plus even more.

Product specifications

Part Number	Voltage Rating (Vdc)	Current Rating (Amps)	Interrupting Rating (Amps) ¹	Typical Cold Resistance (mΩ) ²	Typical Voltage Drop (mV)	Typical Pre-Arcing I ² t (A ² s) ³	Fuse Marking Color (text)
TCP70-5-R	70	5	2500	34.5	235	50	Red
TCP70-6-R	70	6	2500	20.1	165	48	Purple
TCP70-10-R	70	10	2500	10.5	148	165	Green
TCP70-15-R	70	15	2500	6.3	138	460	Blue
TCP70-30-R	70	30	2500	2.05	84	4400	Black

1. DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source).

2. DC Cold Resistance are measured at <10% of rated current in ambient temperature of 20°C.

3. Typical Pre-arcing I²t (A²s) are measured at 10I_n and rated current.

Electrical characteristics

% of Amp Rating	Opening Time
100%	4 hours minimum
150%	<60 min
200%	<2 min

Environmental Data

- Operating temperature range: -55°C to +125°C (see derating curve)
- Altitude: <2000m above sea level
- Humidity: 90% at 20°C, 50% at 40°C non-condensing

Reliability

- Thermal shock test — MIL-STD-202G Method 107G air-to-air, 100 cycles
- Temperature cycling — JESD22 Method A104, Condition B, 100 cycles
- Mechanical shock test — MIL-STD-002 Method 213B, 50g
- Mechanical vibration test — MIL-STD-202, Method 204D, condition D, 20g, 10-500Hz.

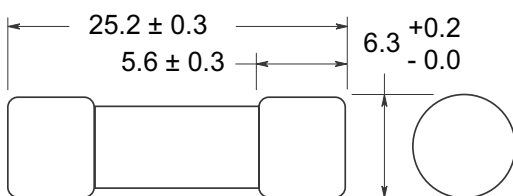
Packaging

- 1000 fuses packed into a cardboard carton. Order with part number prefix BK1/. E.g., BK1/TCP70-5-R

Recommended PCB fuseclips

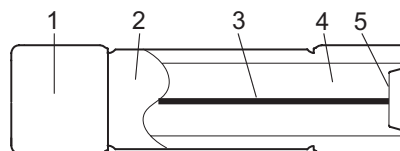
- 1Axxxx Series for 6.3mm (1/4") fuses - see data sheet # 2131.

Dimensions - mm



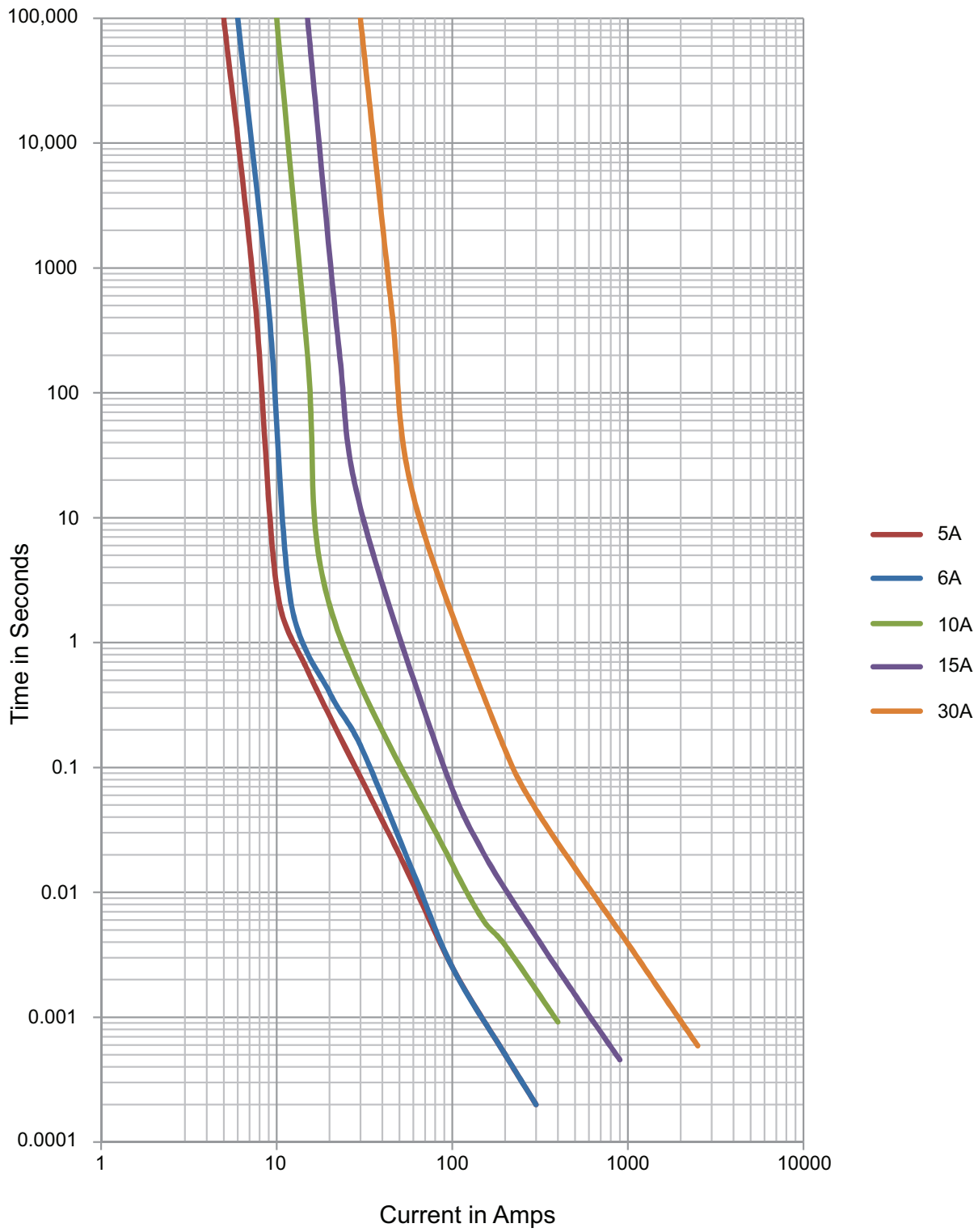
Construction

Not to scale

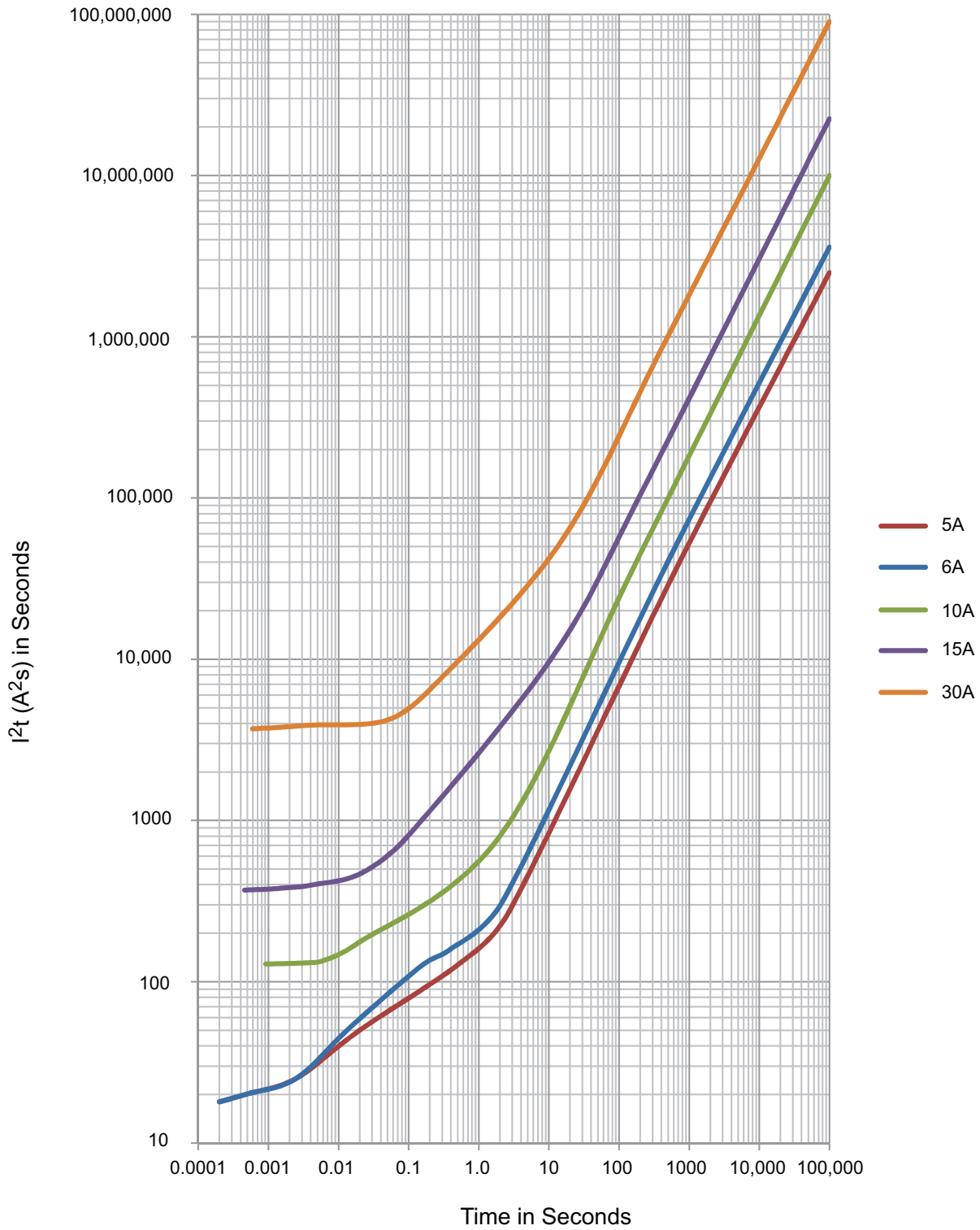


1. Tin-plated copper cap
2. Ceramic tube
3. Fuse element wire
4. Filler
5. Eyelet

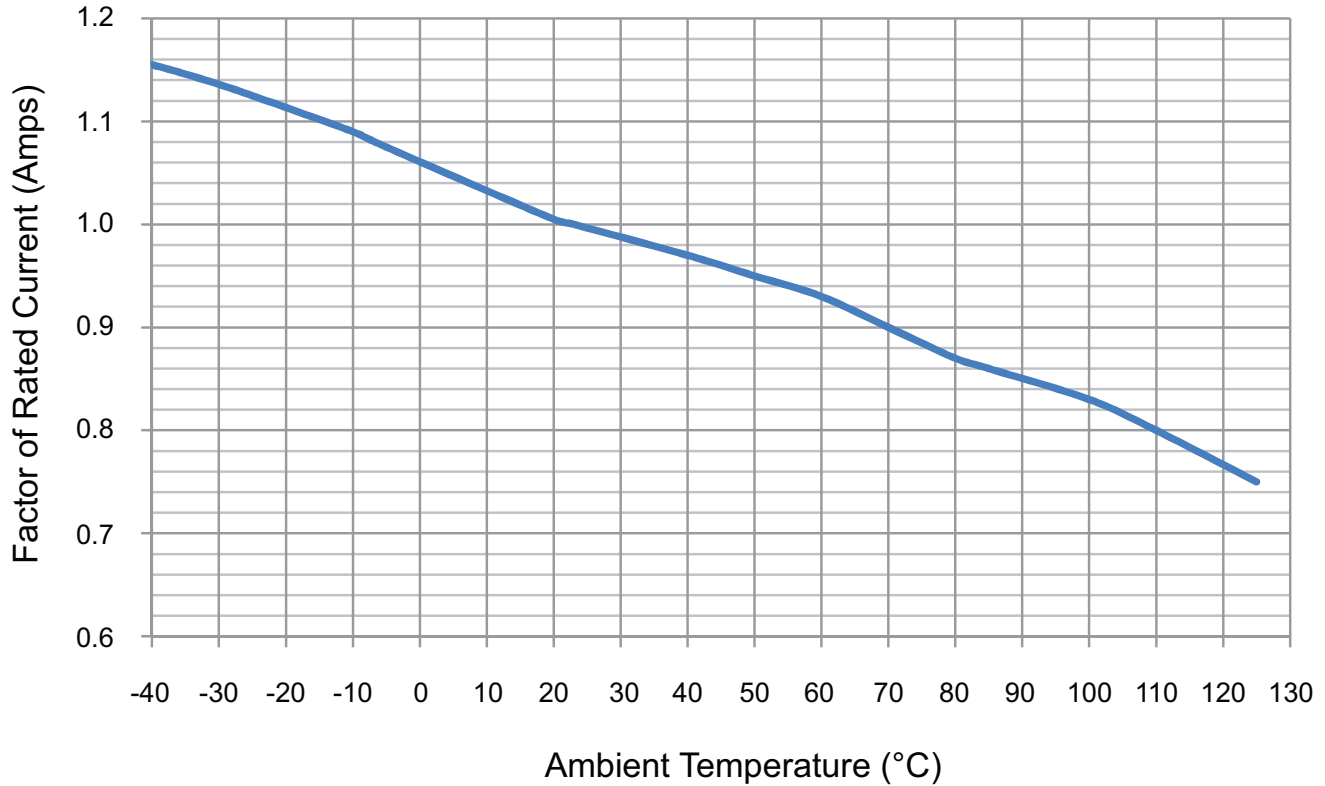
Time-current curves



I²t (A²s) Curves



Thermal derating curve



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