

TCP70

70 Vdc Telecom fuses



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

Product features:

- Designed to UL 248 and UL 248-14
- 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
- Economical solution with breaking characteristics similar to a circuit breaker

Product specifications

Part Number	Voltage Rating (Vdc)	Current Rating (A)	Interrupting Rating (A) 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: <2000 m above sea level
- Humidity: 90% at +20 °C, 50% at +40 °C non-condensing

Reliability

- Thermal shock test — MIL-STD-202G Method 107 G 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, 20 g, 10-500 Hz.

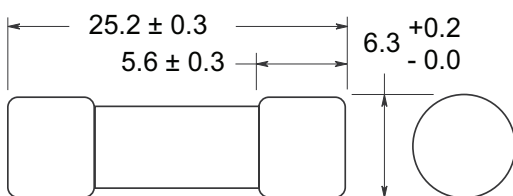
Packaging

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

Recommended PCB fuseclips

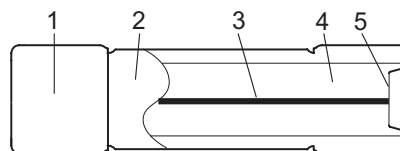
- 1Axxxx Series for 6.3 mm (1/4") fuses - see data sheet # 2131.

Dimensions - mm



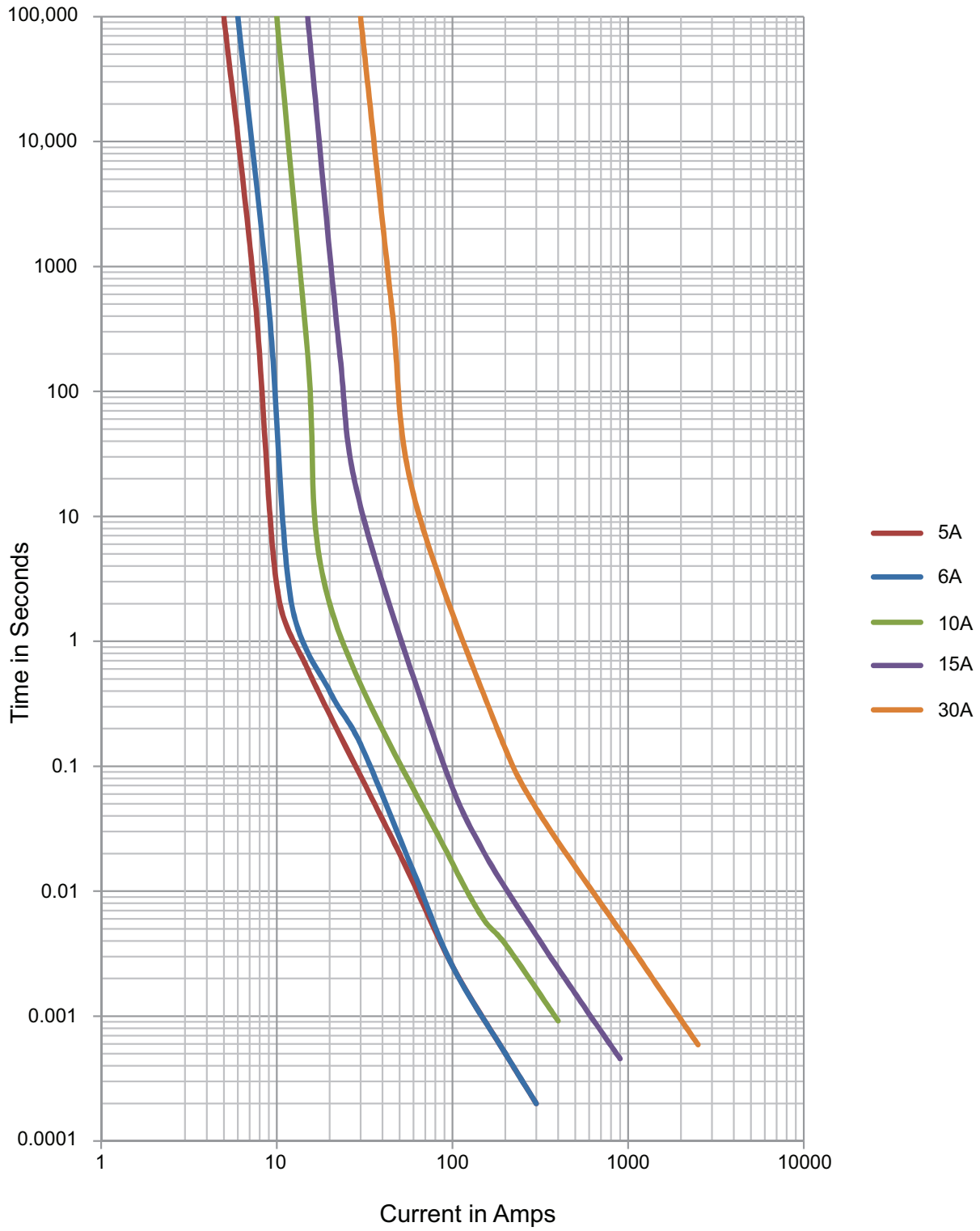
Construction

Not to scale

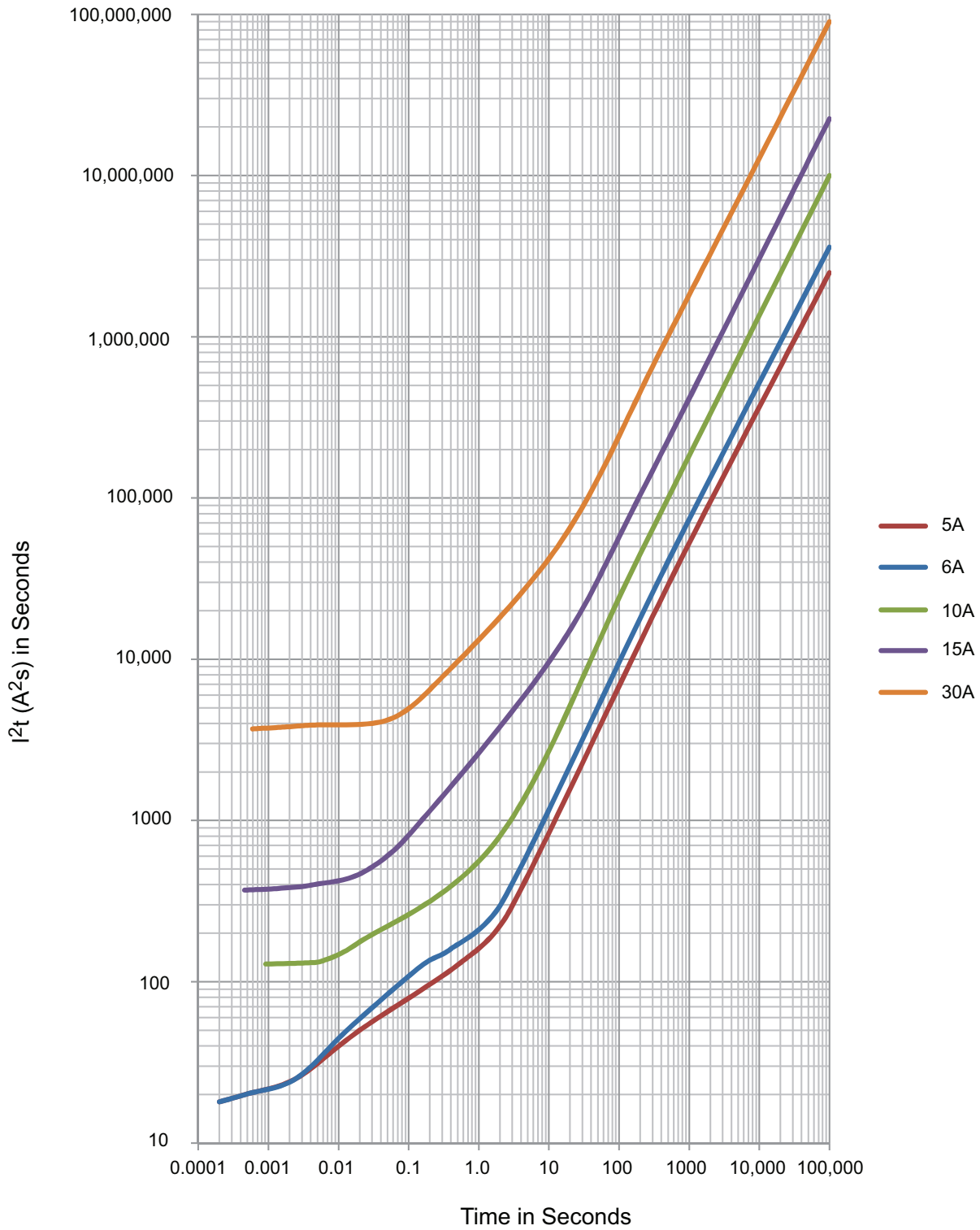


1. Tin-plated copper cap
2. Ceramic tube
3. Fuse element wire
4. Filler
5. Eyelet

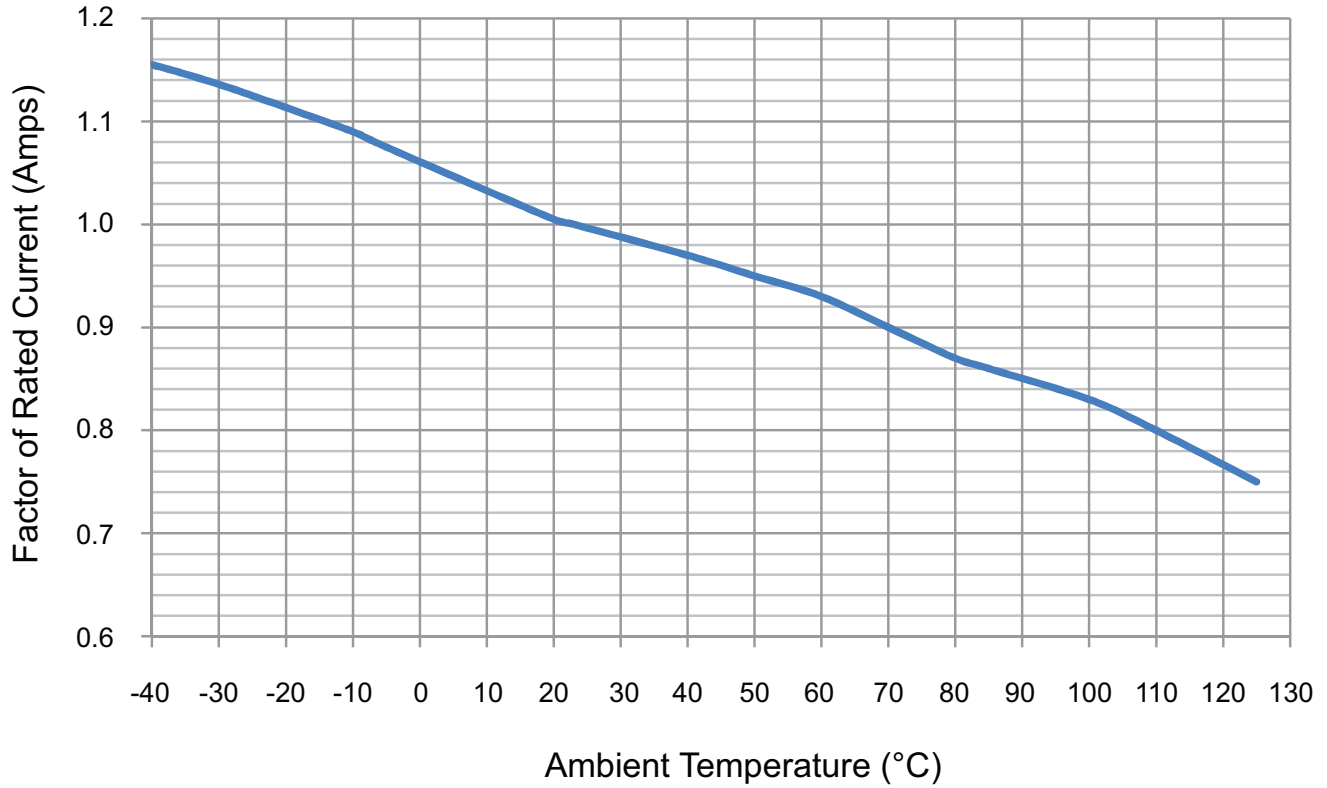
Time-current curves



I²t (A²s) Curves



Thermal derating curve



Life Support Policy: Eaton does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

Eaton reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Eaton also reserves the right to change or update, without notice, any technical information contained in this bulletin.

Eaton
Electronics Division
1000 Eaton Boulevard
Cleveland, OH 44122
United States
www.eaton.com/electronics

© 2017 Eaton
All Rights Reserved
Printed in USA
Publication No. 10250 BU-SB14404
June 2017

Eaton is a registered trademark.

All other trademarks are property of their respective owners.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Eaton:](#)

[BK1-TCP70-10-R](#) [BK1-TCP70-15-R](#) [BK1-TCP70-6-R](#) [BK1-TCP70-30-R](#) [BK1-TCP70-5-R](#)