AHC

High voltage 1/4" x 1-1/4" fast-acting ceramic tube fuse

Product features

- High voltage ceramic tube fuse
- Compact 3AB footprint:
  ¼" x 1 ¼" (6.3 x 32 mm)
- Fast-acting performance
- 600 V rating
- Cartridge and axial lead versions available
- Very high interrupting ratings to help safely protect against dangerous high fault currents
- Fuse accessories (cartridge version):
  HVP Panel mount fuse holder (480V)
  HVI In-line fuse holder (600V)
  S-8000 Panel mount fuse block (600V)
  1Axxxx (up to 600V) fuse clips

Agency information

- cURus recognition file number:
  E19180 Guide JDYX2 and JDYX8

Applications

- Industrial control panels
- Motor control - UL 508A panels
- Uninterruptible power supplies (UPS)
- Variable frequency drives
- Energy storage and battery systems
- High voltage power conversion

Environmental compliance

Pb HALOGEN HF FREE RoHS

Ordering part number

BK-AHC-V-5-R

- Packaging prefix
- Family name
- Option code (V = leaded)
- Ampere rating
- RoHS compliance

Packaging prefix

- **Blank**
  5 pieces in tin case for AHC-XXX-R, 4 pieces in tin case for AHC-V-XXX-R
- **BK1-**
  1000 pieces in polybag for AHC-XXX-R
- **BK-**
  100 pieces in carton for AHC-XXX-R, AHC-V-XXX-R or AHC-V2-XXX-R
- **TR-**
  500 pieces on reel for AHC-V-XXX-R

Option code

- **-V**
  Axial leads with 38.1 mm length – copper tinned wire with nickel plated brass over caps
- **-V2**
  Axial leads with 50.8 mm length – copper tinned wire with nickel plated brass over caps

Electrical characteristics

Amp Rating	1.0 In minimum	2.5 In maximum
0.2 A - 10 A	4 hours	120 seconds

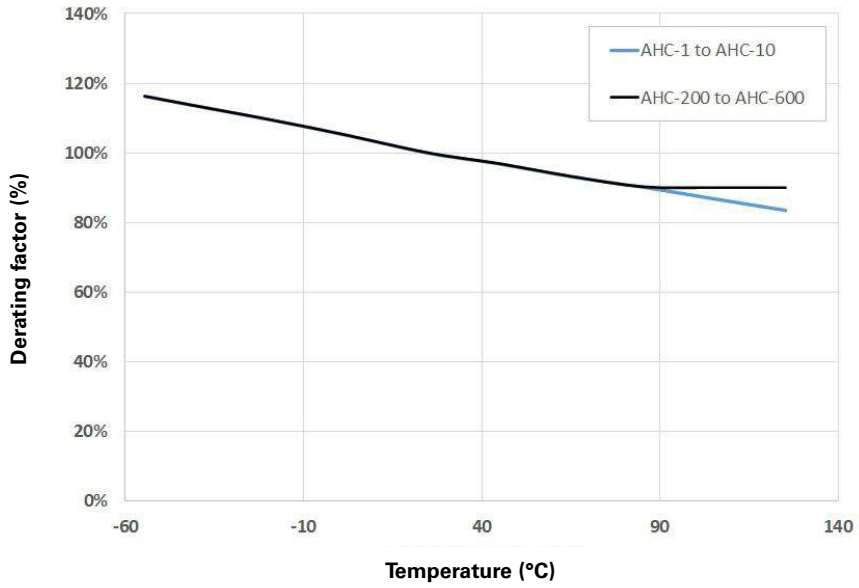
Product specifications

Part number	Current rating (A)	Voltage rating (Vac)	Voltage rating (Vdc)	Interrupting rating @ rated voltage (A) Vac	Interrupting rating @ rated voltage (A) Vdc	Typical resistance[1] (mΩ)	Typical voltage drop[3] (mV)
AHC-200(-V)-R	0.2	600	600	10,000	10,000	4310	1060
AHC-250(-V)-R	0.25	10,000	10,000	4 78mBDC 0 T MC P <</Lang (en-)/MDC 0 T MC MC P <</Lang (en-)/MDC BDC T 0 (en-)/M			

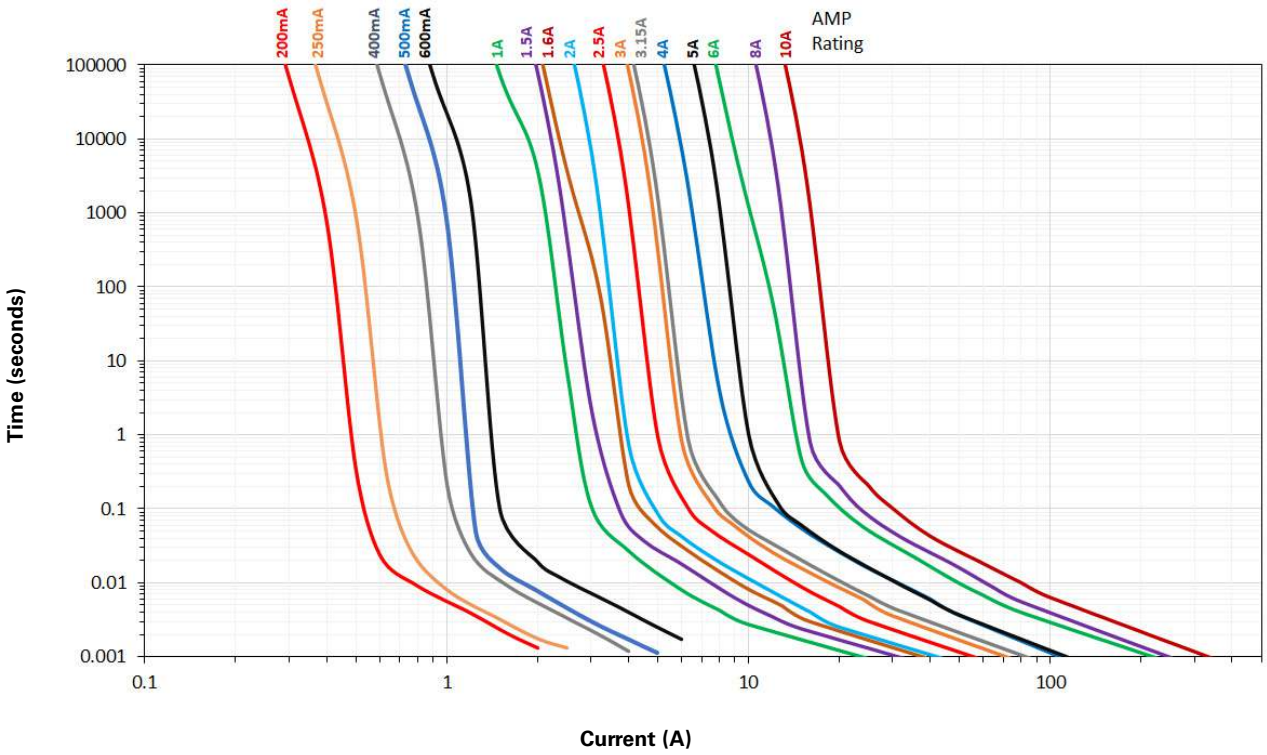
General specifications

Operating temperature: -55 °C to +125 °C with proper correction factor applied
Terminal strength: MIL-STD-202G, Method 211A, Test condition A, Pull force 10N/10S
Thermal shock: MIL-STD-202, Method 107G: -55 °C to +125 °C, 5 cycles
Mechanical shock: MIL-STD-202 Method 213. Condition A: Half-sine shock pulse, peak=50 g's, 11 ms, total 18 shocks
Vibration: According to IEC60068-2-6: The specimens shall be subjected to a simple harmonic motion having an amplitude of 0.03 inch (0.06 inch maximum total excursion), the frequency being varied uniformly between the approximate limits of 10 and 55 hertz (Hz). The entire frequency range, from 10 to 55 Hz and return to 10 Hz, shall be traversed in approximately 1 minute.
Humidity: MIL-STD-202G, Method 103B, Test condition A: 95% RH, +40 °C, 240 hours
Solderability: IEC-60127-2, A.3.3: No steam ageing. Immersion conditions: +250 °C +/-3 °C, 3s +/-0.3s

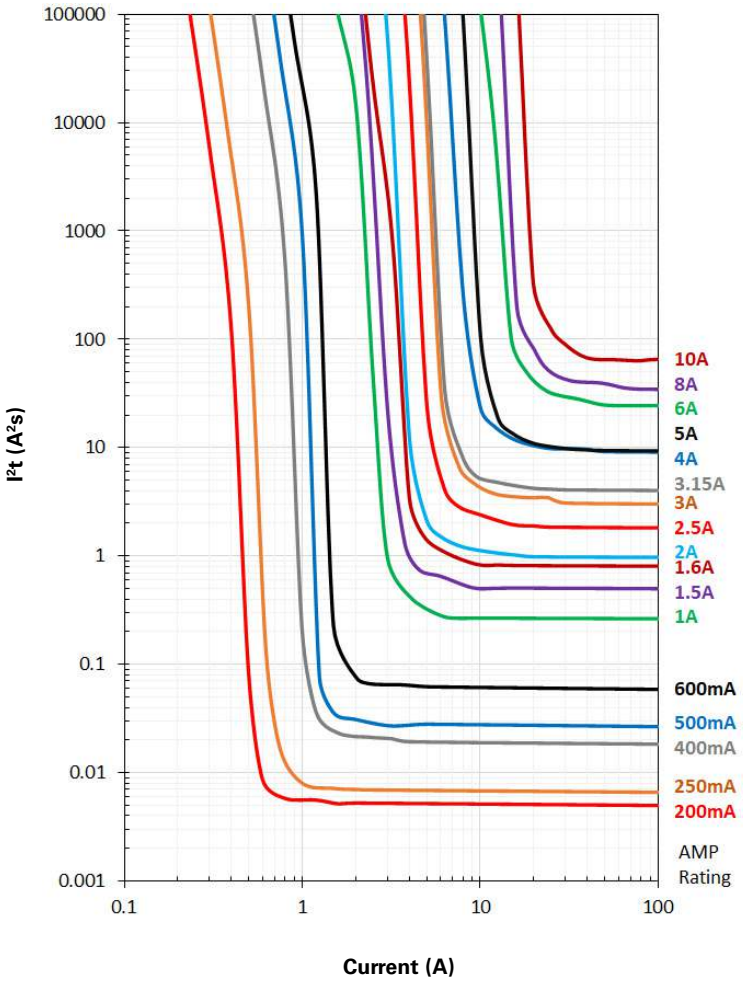
Temperature derating curve



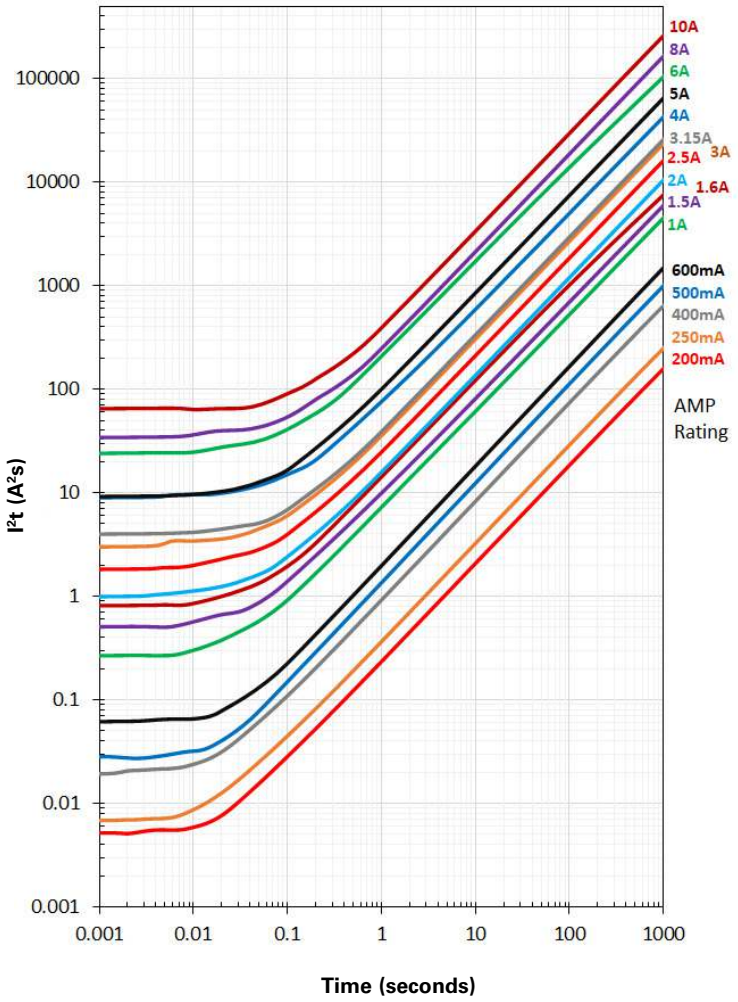
Time vs. current curve



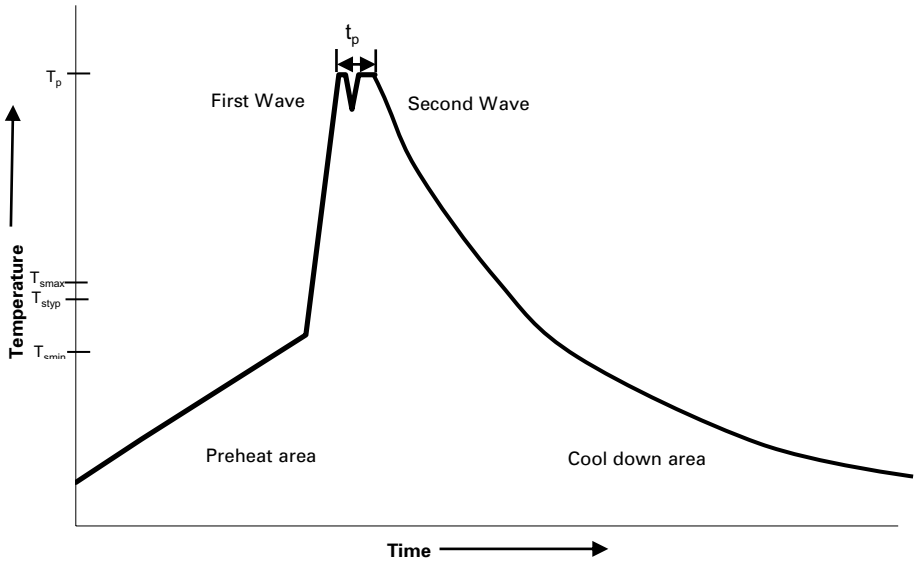
I²t vs. current



I²t vs. time curve



Wave solder profile (Axial lead only)



Reference EN 61760-1:2006

Profile feature		Standard SnPb solder	Lead (Pb) free solder
Preheat	• Temperature min. (T_{smin})	100 °C	100 °C
	• Temperature typ. (T_{styp})	120 °C	120 °C
	• Temperature max. (T_{smax})	130 °C	130 °C
	• Time (T_{smin} to T_{smax}) (t_s)	70 seconds	70 seconds
Δ preheat to max Temperature		150 °C max.	150 °C max.
Peak temperature (T_P)*		235 °C – 260 °C	250 °C – 260 °C
Time at peak temperature (t_p)		10 seconds max 5 seconds max each wave	10 seconds max 5 seconds max each wave
Ramp-down rate		~ 2 K/s min ~3.5 K/s typ ~5 K/s max	~ 2 K/s min ~3.5 K/s typ ~5 K/s max
Time 25 °C to 25 °C		4 minutes	4 minutes

Manual solder

+350 °C (4-5 seconds by soldering iron), generally manual/hand soldering is not recommended.

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