## **Electrical characteristics**

Amp Rating	% of Amp Rating	Opening Time
1-8 A	100	4 Hours
1-7 A	200	1-60 Seconds
1-8 A	250	5 Seconds Max

### **Specifications**

Part Number	Amp Rating⁵	Voltage Rating (Vdc)	Interrupting Rating <sup>1, 4</sup> (A)	Typical Cold Resistance <sup>2</sup> (Ω)	Typical Pre-Arcing³ (l²t)	Typical Voltage Drop (mV)	Typical Power Dissipation (W)	Alpha Marking	Agency Information (cURus)
CC06H1A	1	32	50	0.25	0.02	310	0.32	В	х
CC06H1.5A	1.5	32	50	0.13	0.07	250	0.38	Н	х
CC06H2A	2	32	50	0.068	0.14	170	0.38	К	х
CC06H2.5A	2.5	32	50	0.05	0.25	155	0.38	L	х
CC06H3A	3	32	50	0.035	0.30	130	0.38	0	х
CC06H3.5A	3.5	32	50	0.023	0.50	100	0.35	R	х
CC06H4A	4	32	50	0.02	0.8	110	0.45	S	х
CC06H5A	5	32	50	0.013	1.6	95	0.48	Т	х
CC06H6A	6	32	50	0.0076	2.6	80	0.48	V	х
CC06H7A	7	32	50	0.0056	3.3	80	0.56	Х	Х
CC06H8A	8	32/24	50/80	0.0040	4.5	75	0.60	Z	х

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 -

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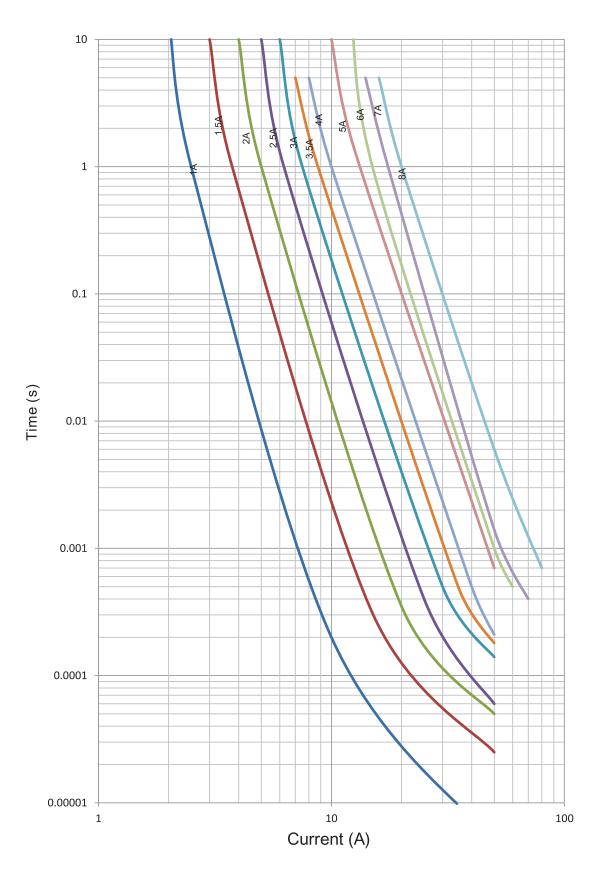
3. Typical Pre-arcing I<sup>2</sup>t are measured at rated DC voltage, 10I<sub>n</sub> current (not to exceed interrupting rating).

4. The insulation resistance after breaking capacity test is higher than 0.1 M $\Omega$  when measured by 2X rated voltage.

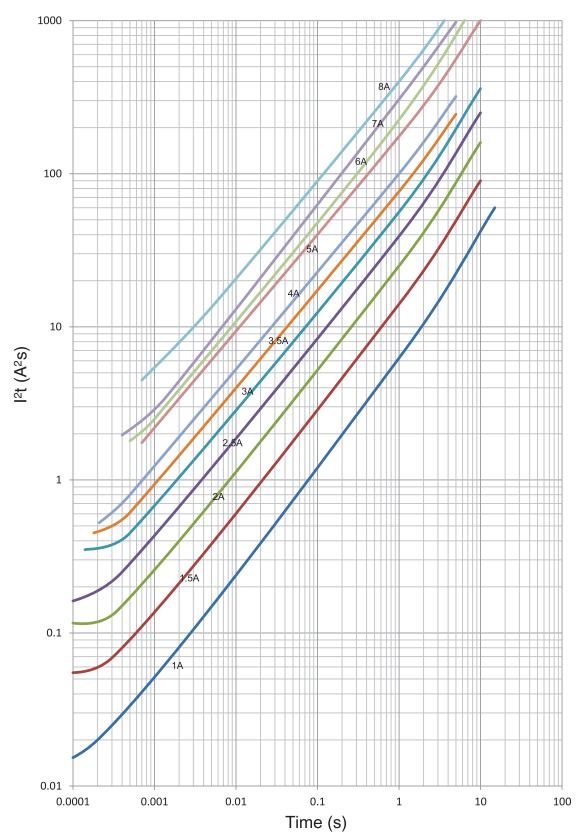
5. Device designed to carry rated current for 4 hours minimum. An operating current 80% or less of rated current is recommended, with further design derating required at elevated ambient temperature. See Temperature Derating Curve on next page.

# CC06H High l²t Chip™ 0603 size fuses

# Time-current curves — average melt

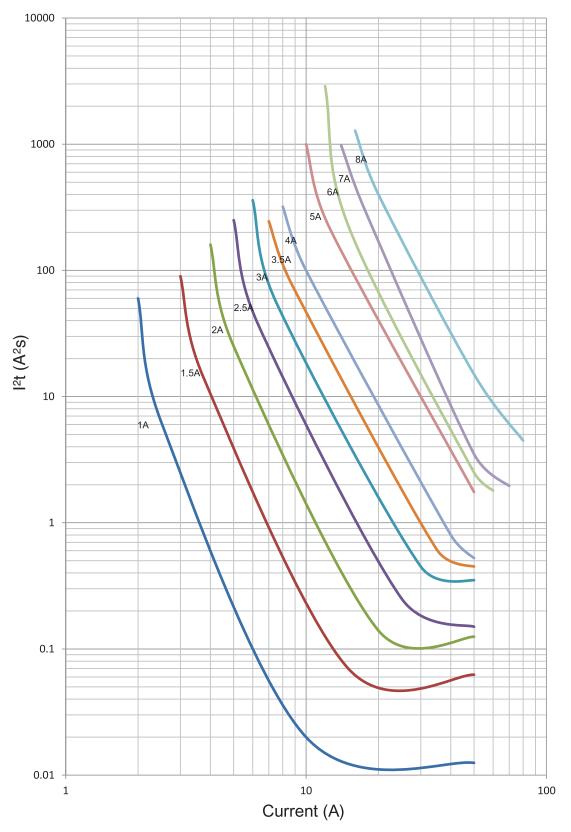


## l<sup>2</sup>t vs. time curves



# CC06H High I²t Chip™ 0603 size fuses

## l<sup>2</sup>t vs. current curves



# CC06H High l²t Chip™ 0603 size fuses

0.50

(0.02)

Ļ

0.90 (0.035)

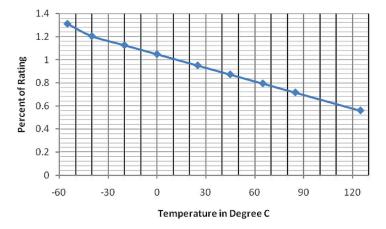
t

#### Temperature derating curve



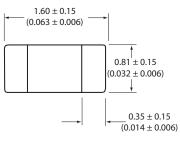
1.25

(0.05)

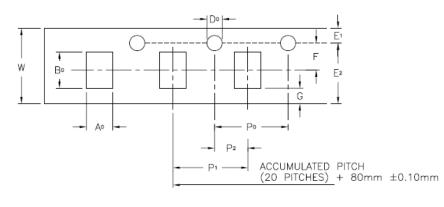


#### Dimensions - mm (in)

Drawing not to scale.







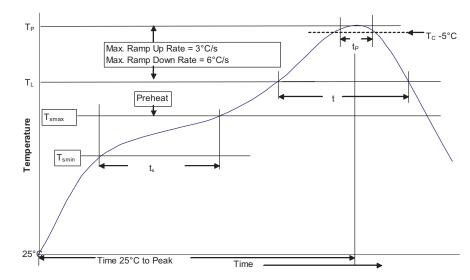
A <sub>0</sub>	B <sub>0</sub>	D <sub>0</sub>	E <sub>1</sub>	E <sub>2</sub>	F	G	P <sub>o</sub>	<b>P</b> <sub>1</sub>	<b>P</b> <sub>2</sub>	Т	w
0.95 ±0.05	1.80 ±0.05	1.50 +0.10, -0.0	1.75 ±0.10	6.25 ±0.30	3.50 ±0.05	0.75 min.	4.00 ±0.10	4.00 ±0.10	2.00 ±0.05	0.060 ±0.05	8.00 ±0.20

#### **Product characteristics**

Operating temperature	-40 °C to +85 °C , with proper derating factor applied
Storage temperature	-40 °C to +85 °C
Load humidity	MIL-STD-202G, Method 103B (1000 hr @ +85 °C / 85% RH & 10% rated current)
Moisture resistance	MIL-STD-202, Method 106E (50 cycles)
Thermal shock	MIL-STD-202, Method 107D (-65 °C to +125 °C, 100 cycles)
Vibration test	MIL-STD-202, Method 204D, Test Condition D (10-2,000 Hz)
Mechanical shock resistance	MIL-STD-202, Method 213B (3000 G / 0.3 ms)
Salt spray resistance	MIL-STD-202, Method 101, Test Condition B (48 hour exposure)
Insulation resistance	The insulation resistance after breaking capacity test is higher than $0.1M\Omega$ when measured by 2X rated voltage
Solderability	J-STD-002C Method B1 (Dip and Look Test), Method G1 (Wetting Balance Test), Method D (Resistance to Dissolution / Dewetting of Metalization)
Resistance to soldering heat	MIL-STD-202, Method 210F (Solder dip +260 °C, 60 seconds / Solder Iron +350 °C, 3-5 seconds)
High temperature life test	MIL-STD-202G, Method 108A (1000 Hours @ +70 °C & 60% rated current)
Resistance to solvents	MIL-STD-202, Method 215K

## CC06H High I²t Chip™ 0603 size fuses

#### Solder reflow profile



andard SnPl	b Solder (I <sub>C</sub> )
Volume	Volume
mm <sup>3</sup>	mm <sup>3</sup>
<350	≥350
235°C	220°C
220°C	220°C
	Volume mm³ <350 235°C

Table 2 - Lead (Pb) Free Solder (T<sub>c</sub>)

	•			
Dookogo	Volume	Volume	Volume mm <sup>3</sup>	
Package	mm³	mm <sup>3</sup>	mm	
Thickness	<350	350 - 2000	>2000	
<1.6mm	260°C	260°C	260°C	
1.6 – 2.5mm	260°C	250°C	245°C	
>2.5mm	250°C	245°C	245°C	

#### **Reference JDEC J-STD-020**

Profile Feature		Standard SnPb Solder	Lead (Pb) Free Solder 150°C	
Preheat and Soak	<ul> <li>Temperature min. (T<sub>smin</sub>)</li> </ul>	100°C		
	<ul> <li>Temperature max. (T<sub>smax</sub>)</li> </ul>	150°C	200°C	
	<ul> <li>Time (T<sub>smin</sub> to T<sub>smax</sub>) (t<sub>s</sub>)</li> </ul>	60-120 Seconds	60-120 Seconds	
Average ramp up rate T <sub>smax</sub> to T <sub>p</sub>		3°C/ Second Max.	3°C/ Second Max.	
Liquidous temperature (TL)		183°C	217°C	
Time at liquidous (t <sub>L</sub> )		60-150 Seconds	60-150 Seconds	
Peak package body temperature (T <sub>P</sub> )*		Table 1	Table 2	
Time $(t_p)^{**}$ within 5 °C of the specified classification temperature $(T_c)$		20 Seconds**	30 Seconds**	
Average ramp-down rate (Tp to Tsmax)		6°C/ Second Max.	6°C/ Second Max.	
Time 25°C to Peak Temperature		6 Minutes Max.	8 Minutes Max.	

 $^{\ast}$  Tolerance for peak profile temperature (T\_p) is defined as a supplier minimum and a user maximum.

\*\* Tolerance for time at peak profile temperature (t<sub>p</sub>) is defined as a supplier minimum and a user maximum.

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

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