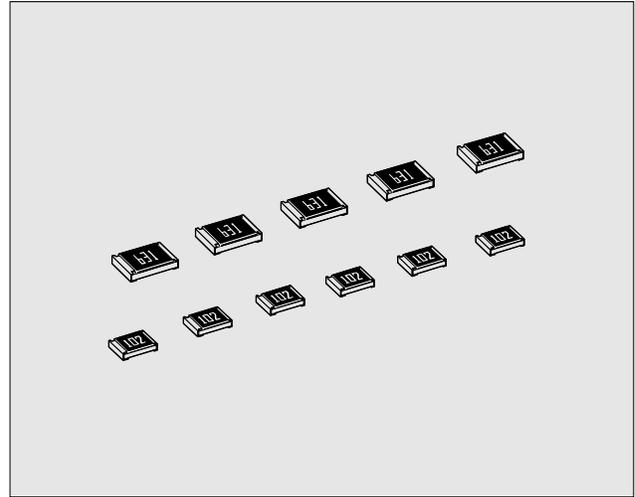




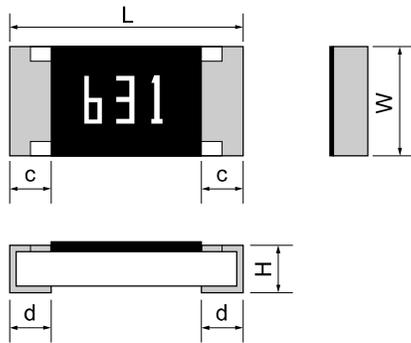
# FCC20, 32

## ●Features

1. Excellent for use in the circuit of miniature portable equipment for over current protection.
2. Available in 0805 and 1206 size with overall height of 0.6mm.
3. Recognized to meet UL and c-UL.
  - File No.: E176847
4. Conform to IEC 60127-4 Universal Modular Fuse-Links (UMF).
  - (Option Code : AA)



## ●Dimensions



Current value is marked with 3-digits on the over coating.  
e.g."631"— $63 \times 10^1$ (mA)

Unit : mm

Style	Metric	Inch	L	W	H	c	d	*Unit weight/pc.
FCC20	2012	0805	2.0±0.1	1.25±0.1	0.6±0.1	0.4±0.2	0.4±0.2	6mg
FCC32	3216	1206	3.2±0.2	1.6±0.15	0.6±0.1	0.5±0.25	0.5±0.25	10mg

\*0402 and 0603 size are available. Please contact KAMAYA for further information.

\*Values for reference

## ●Product Classification

Example

<p><u>FCC</u></p> <p>①Product Type</p>	<p><u>20</u></p> <p>②Size</p>	<p><u>202</u></p> <p>③Rated Current</p>	<p><u>AA</u></p> <p>④Option Code</p>	<p><u>TP</u></p> <p>⑤Packaging</p>																											
<p>①Product Type</p>	<p>Style</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Code</th> <th colspan="2">Size</th> </tr> <tr> <th>Metric</th> <th>Inch</th> </tr> </thead> <tbody> <tr> <td>20</td> <td>2012</td> <td>0805</td> </tr> <tr> <td>32</td> <td>3216</td> <td>1206</td> </tr> </tbody> </table>	Code	Size		Metric	Inch	20	2012	0805	32	3216	1206	<p>③Rated Current</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>e.g : 501=0.5A</td> <td rowspan="3" style="text-align: center; vertical-align: middle;">3Digit</td> </tr> <tr> <td>132=1.25A</td> </tr> <tr> <td>202=2.0A</td> </tr> </table>	e.g : 501=0.5A	3Digit	132=1.25A	202=2.0A	<p>④ Option Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Contents</th> </tr> </thead> <tbody> <tr> <td>AA</td> <td>Conform to IEC 60127-4</td> </tr> <tr> <td>AD</td> <td>For general purpose</td> </tr> </tbody> </table>	Code	Contents	AA	Conform to IEC 60127-4	AD	For general purpose	<p>*⑤Packaging</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Packaging</th> </tr> </thead> <tbody> <tr> <td>B</td> <td>Bulk(Loose Package)</td> </tr> <tr> <td>TP</td> <td>Paper Tape.</td> </tr> </tbody> </table> <p><small>*Refer to Taping and Packaging information in page 34.35</small></p>	Code	Packaging	B	Bulk(Loose Package)	TP	Paper Tape.
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●Ratings

Style	Rated Current		Option Code	Internal Resistance m ohm max.	Interrupting Rating	Carrying Capacity	Clearing Time	Category Temperature Range°C
	Code	Value A						
FCC20	501	0.5	AA (Conform to IEC60127-4)	270	32Vd.c. 50A	110%	Within 120s under 200% of Rated Current	-55~+125
	631	0.63		190				
	801	0.8		130				
	102	1.0		100				
	132	1.25		80				
	162	1.6		65				
	202	2.0		55				
	252	2.5		40				
FCC32	501	0.5		295				
	631	0.63		200				
	801	0.8		140				
	102	1.0		110				
	132	1.25		85				
	162	1.6		75				
	202	2.0		65				
	252	2.5		45				

Style	Rated Current		Option Code	Internal Resistance m ohm max.	Interrupting Rating	Carrying Capacity	Clearing Time	Category Temperature Range °C
	Code	Value A						
FCC20	501	0.5	AD (For general purpose)	270	32Vd.c. 50A	110%	Within 5s under 250% of Rated Current	-55~+125
	631	0.63		190				
	801	0.8		130				
	102	1.0		100				
	132	1.25		80				
	162	1.6		65				
	202	2.0		55				
	252	2.5		40				
FCC32	501	0.5		295				
	631	0.63		200				
	801	0.8		140				
	102	1.0		110				
	132	1.25		85				
	162	1.6		75				
	202	2.0		65				
	252	2.5		45				

Note : As for the fusible characteristics except for the above, ask KAMAYA.

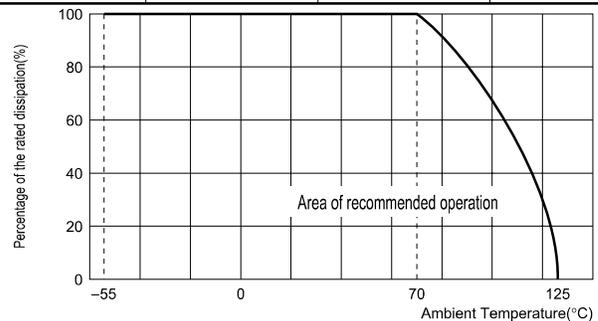
●Thermal Derating

The derated values of dissipation at temperature in excess of 70°C shall be as indicated by the following curve.

●Recommended Using Condition

The dissipation (steady state) : (r.m.s. value of normal current)×80%

Note : The Application Guide ( I<sup>2</sup>t-t graph, using guide, etc) is available.



●Performance Characteristics

Description	Requirements	Test Methods IEC 60127-4
Carrying Capacity	No fusing	Rated dissipation×110%, 70°C, 1h
Bend strength of the face plating	No visible damage	Clause 8.3 1mm/s, amount of bend : 3mm
Solderability	At least 95% of the terminal surface must be covered by new solder	Clause 8.5 Be immersed into solder at 235°C for 2s
Resistance to soldering heat	No visible damage. Meet electrical requirement	Clause 8.7 Be immersed into solder at 260°C for 10s
Endurance (rated load)	The voltage drop shall not have increased by more than 10% of the value measured before the test	Clause 9.4 At normal condition Rated current ×1.05, 1h"ON", a quarter"OFF", 100cycles Rated current ×1.25, 1h
Temperature rise on the surface	70°C max.	Clause 9.7.5 Test will be conducted at the highest temperature rise of the element before 5min from Endurance test over.