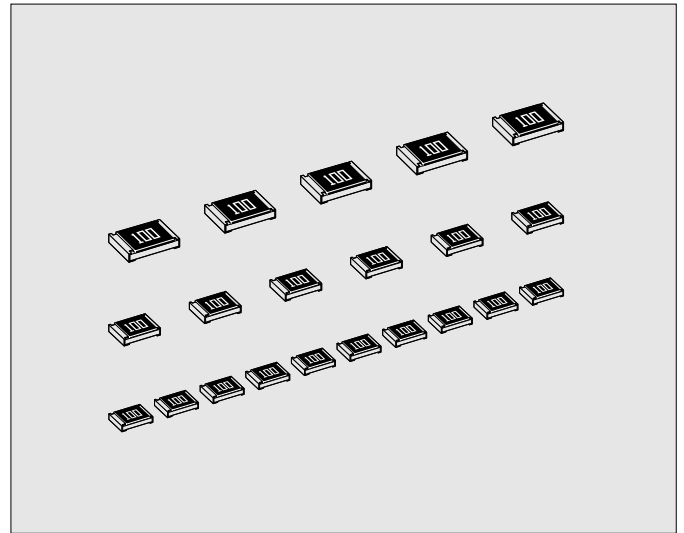


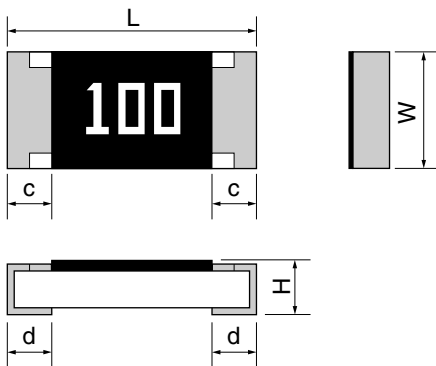
# FRC

## ●Features

1. No flame, No smoke in overload conditions.
2. Suitable for Battery circuit and Power supply circuit.



## ●Dimension



Rated resistance value is marked with 3-digit on the over coating

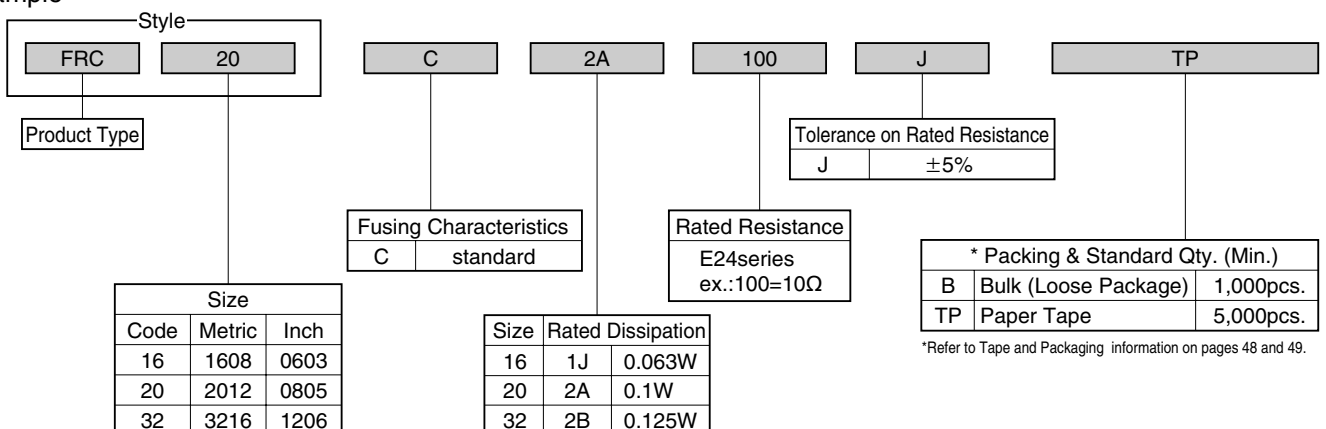
Unit : mm

Style	Metric	Inch	L	W	H	c	d	*Unit weight/pc.
FRC16	1608	0603	1.6±0.1	0.8 <sup>+0.15</sup> <sub>-0.05</sub>	0.45±0.10	0.3±0.1	0.3±0.1	2.2mg
FRC20	2012	0805	2.0±0.1	1.25±0.10	0.6 ±0.1	0.4±0.2	0.4±0.2	6mg
FRC32	3216	1206	3.2±0.2	1.6 ±0.15	0.6 ±0.1	0.5±0.25	0.5±0.25	10mg

\*Values for reference

## ●Part Number Description

Example



\*Refer to Tape and Packaging information on pages 48 and 49.

# CHIP FUSIBLE RESISTORS; RECTANGULAR TYPE

FRC

## ●Ratings

Style	Size Metric (Inch)	Rated Dissipation W	Rated Resistance Range	Tolerance on Rated Resistance	Temperature Coefficient of Resistance 10 <sup>-6</sup> /°C	Preferred Number Series for Resistors	Fusing Characteristic		Maximum open-circuit voltage	Category Temperature Range °C
							Applied Power	Fusing Time		
FRC16	1608 (0603)	0.063	3.9Ω~51Ω	J(±5%)	±1,000	E24	1.89W	30s max.	50V	-55~+125
FRC20	2012 (0805)	0.1	1Ω~51Ω				2.0W			
FRC32	3216 (1206)	0.125					2.5W			

Note1. Rated Voltage =  $\sqrt{(\text{Rated Dissipation}) \times (\text{Rated Resistance})}$ . (d.c. or a.c. r.m.s. Voltage)

Note2. Contact us for further information on other style, resistance and pre-arcing time-current characteristic than those mentioned above.

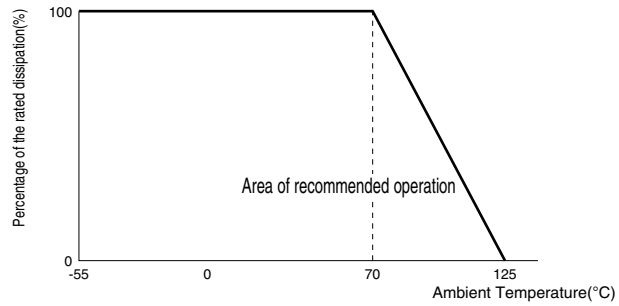
Note3. Contact us for information when inrush and surge voltage are supposed to be applied.

Note4. Maximum open circuit voltage is the value of voltage applicable to both ends of resistors, when a resistor is open condition in a circuit.

This voltage shall be corresponding to 1,000 times the rated dissipation or maximum open circuit which is the less severe.

## ●Derating Curve

The derated values of dissipation for temperatures in excess of 70°C shall be indicated by the following Curve.



## ●Performance Characteristics

Description	Requirements	Test Method	JIS C5202-1990
Resistance	Within specified tolerance	5.1 clause	
Temperature characteristic of resistance	See Ratings Table	5.2 clause	Room temp. and 100°C above.
Overload	$\Delta R \leq \pm 5\%$ No major visible damage	5.5 clause	Rated voltage $\times 2.5$ , 5s
Resistance to soldering heat	$\Delta R \leq \pm 3\%$	6.4 clause	Dip into 260°C Solder bath for 10s.
Rapid change of temperature	$\Delta R \leq \pm 5\%$ No major visible damage	7.4 clause	5 cycle between -55°C and +125°C.
Endurance in humidity	$\Delta R \leq \pm 5\%$ No major visible damage	7.9 clause	Rated voltage, 1.5h "ON", 0.5h "OFF", 40°C, 95%R.H., 1,000h.
Endurance at 70°C	$\Delta R \leq \pm 5\%$ No major visible damage	7.10 clause	Rated voltage, 1.5h "ON", 0.5h "OFF", 70°C, 1,000h.

## ●Example of Typical Fusing Characteristics

