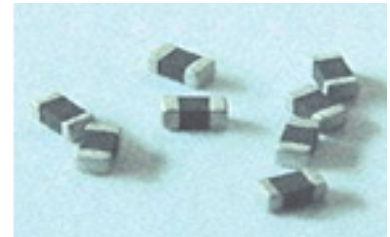


NTCR

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## FEATURES

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- 
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- Minature size, suitable for SMT.
- Porcelain body and glass glaze.
- Excellent in solderability and heat resistance; ideal for wave or re-flow soldering.

## APPLICATIONS

- CPU
  - Temperature Sensing in rechargeable batteries and CPU.
- IC LCD
  - Temperature compensation in IC LCD Crystal oscillator and so on.
- - Temperature compensation or temperature sensing for various types of circuits.

## ORDERING CODE

<u>CMF</u>	<u>A</u>	<u>103</u>	<u>J</u>	<u>3500</u>	<u>H</u>	<u>A</u>	<u>N</u>	<u>T</u>
①	②	③	④	⑤	⑥	⑦	⑧	⑨

## SHAPE AND DIMENSIONS

## Dimension

(Unit): mm/inch

Dimension		L ( )	W ( )	T ( ) max.	M ( )
0201	(mm)	0.60±0.05	0.30±0.05	0.30	0.25±0.10
	(inch)	0.040±0.006	0.020±0.004	0.024	0.010±0.004
0402	(mm)	1.00±0.15	0.50±0.10	0.60	0.25±0.10
	(inch)	0.040±0.006	0.020±0.004	0.024	0.010±0.004
0603	(mm)	1.60±0.15	0.80±0.15	0.95	0.30±0.15
	(inch)	0.063±0.006	0.031±0.006	0.037	0.012±0.006
0805	(mm)	2.00±0.20	1.25±0.20	0.95	0.50±0.20
	(inch)	0.080±0.008	0.050±0.008	0.037	0.020±0.008
1206	(mm)	3.20±0.20	1.60±0.20	1.25	0.50±0.20
	(inch)	0.126±0.008	0.063±0.008	0.050	0.020±0.008

## ELECTRICAL CHARACTERISTICS

### 0201 Series

TYPE	R <sub>25</sub> (KΩ)	B <sub>(25/50°C)</sub> (K)
CMFE102□3500 HANT	1.0	3500
CMFE152□3500 HANT	1.5	3200
CMFE222□3500 HANT	2.2	3500
CMFE332□3500 HANT	3.3	3500
CMFE472□3500 HANT	4.7	3500
CMFE682□3380 HANT	6.8	3500
CMFE103□3380 HANT	10	3380
CMFE103□3900 HANT	10	3900
CMFE153□3380 HANT	15	3380
CMFE223□3380 HANT	22	3380
CMFE333□4250 HANT	33	4250
CMFE473□4250 HANT	47	4250
CMFE683□4250 HANT	68	4250
CMFE104□4250 HANT	100	4250
CMFE154□4250 HANT	150	4250
CMFE224□4250 HANT	220	4250

片式负温度系数热敏电阻器  
CHIP NTC THERMISTOR

0402 Series

TYPE	$R_{25}$ (K $\Omega$ )	$B_{(25/50^{\circ}\text{C})}$ (K)
CMFD152□3200 HANT	1.5	3200
CMFD332□3300 HANT	3.3	3300
CMFD472□3400 HANT	4.7	3400
CMFD103□3380 HANT	10	3380
CMFD103□3900 HANT	10	3900
CMFD223□3600 HANT	22	3900
CMFD333□3950 HANT	33	3950
CMFD473□3950 HANT	47	3950
CMFD683□4100 HANT	68	4100
CMFD104□3800 HANT	100	3800
CMFD104□4050 HANT	100	4050
CMFD154□4100 HANT	150	4100
CMFD204□3950 HANT	200	3950
CMFD224□3950 HANT	220	3950
CMFD334□4050 HANT	330	4050
CMFD474□4050 HANT	470	4050
CMFD684□4150 HANT	680	4150

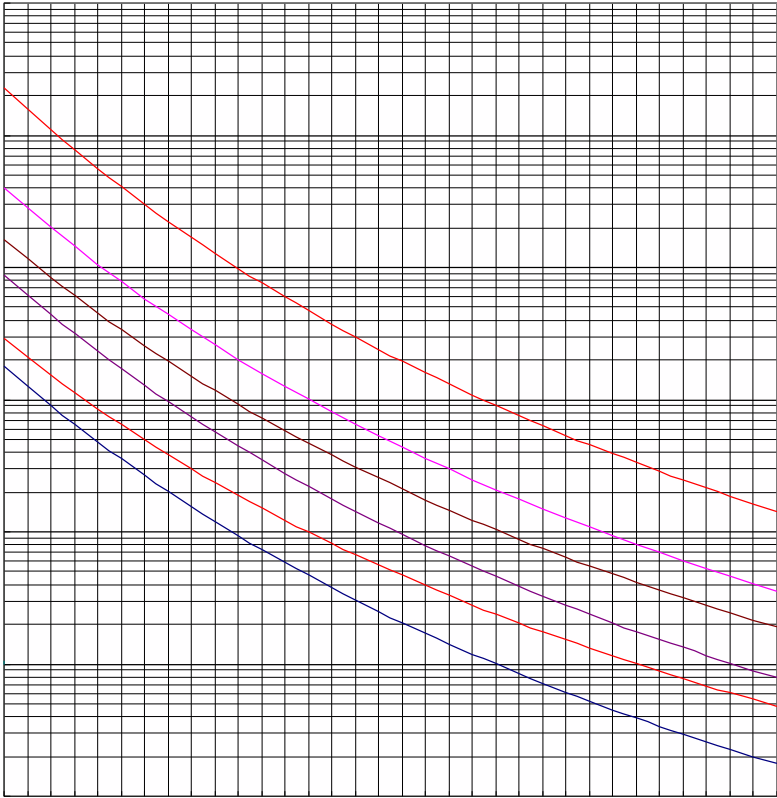
0603 Series

TYPE	$R_{25}$ (K $\Omega$ )	$B_{(25/50^{\circ}\text{C})}$ (K)
CMFA102□3200 HANT	1.0	3200
CMFA202□3400 HANT	2.0	3400
CMFA222□3450 HANT	2.2	3450
CMFA332□3380 HANT	3.3	3300
CMFA472□3380 HANT	4.7	3380
CMFA472□3450 HANT	4.7	3450
CMFA472□3500 HANT	4.7	3500
CMFA472□3900 HANT	4.7	3900
CMFA502□3380 HANT	5.0	3950
CMFA502□3450 HANT	5.0	3950
CMFA502□3500 HANT	5.0	3950
CMFA502□3900 HANT	5.0	3950
CMFA103□3380 HANT	10	3380
CMFA103□3500 HANT	10	3500
CMFA103□3600 HANT	10	3600
CMFA153□3600 HANT	15	3600
CMFA223□3300 HANT	22	3300
CMFA303□3950 HANT	30	3950
CMFA333□3950 HANT	33	3950
CMFA473□3950 HANT	47	3950
CMFA503□3950 HANT	50	3950
CMFA683□4050 HANT	68	4050
CMFA104□3950 HANT	100	3950





- **Resistance temperature Characteristic Curve**



TEMPERATURE (°C)

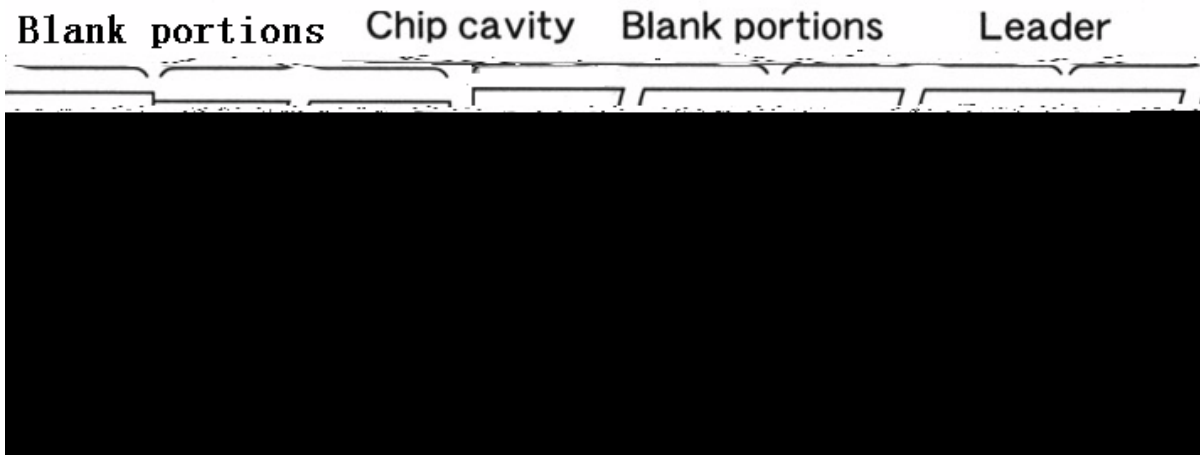
## Reliability Testing

Item	Specified value	Test methods
Solderability	95% At least 95% of terminals should be covered with solder.	Immersion into the colophony flux for: 2sec. Solder temperature: $245 \pm 5^\circ\text{C}$ Duration: $5 \pm 1\text{ s}$
Resistance to Soldering	$10^{-3} \Omega$	

- Packaging



- Leader and blank portion



- Peeling off force: 0.05 to 0.7N in the direction show below.

