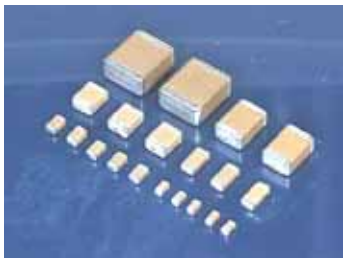


Multilayer Ceramic Chip Capacitors
[High Temperature Capacitor]
HTC Series

◆ Features

- ❑ Rated working voltage of 25 to 50Vdc
- ❑ High operation temperature up to 200 ℃
- ❑ Excellent bias,high temperature stability & low Tan δ
- ❑ RoHS compliant

◆ Application

- ❑ Suitable for oil exploration, automotive and avionics engine, and other harsh environments.
- ❑ Other high temperature circuit design

◆ Summary of Specification

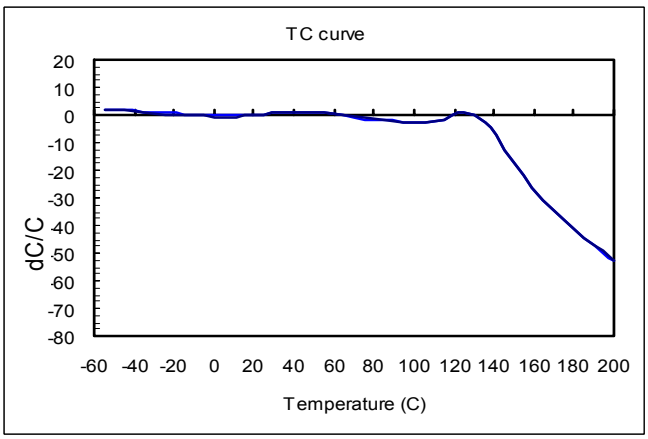
Operation Temperature	-55~+200 ℃
Rated Voltage	25V and 50Vdc
Temperature Coefficient	Cap drop ≤ + 4.7%~ -65% at -55~+200 ℃
Capacitance Range	1nF ~ 270nF
Dissipation Factor :	2.0% max. at 1KHz 25℃
Insulation Resistance	10GΩ or 500/C Ω whichever is smaller
	≧1G Ω or 10/C Ω at 200 ℃ Which is smaller
Dielectric Strength	250% Rated Voltage for 5 second @ 50mA max. current
Capacitance Tolerance	± 10% , ± 20%
Aging	1.0% per decade hr , Typical

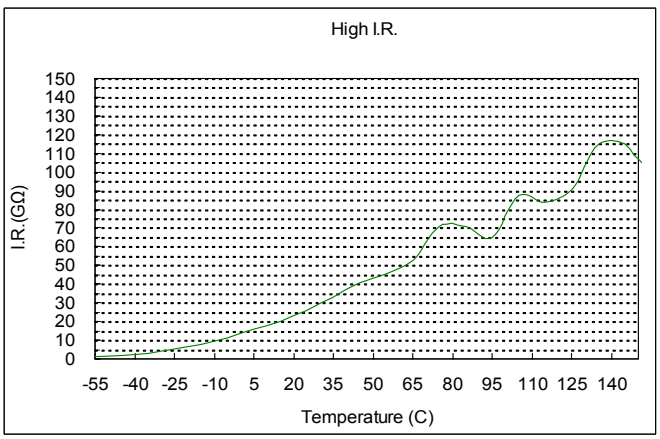
◆ How To Order

HTC	1812	X	104	K	050	T

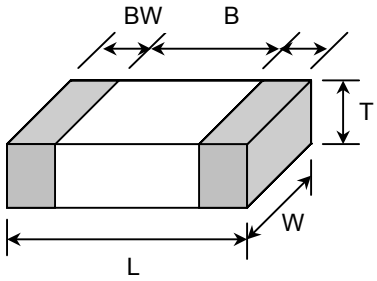
Product Code	**Chip Size**	**Dielectric**	**Capacitance Unit : pF**	**Tolerance**	**Rated Voltage**	**Packaging**
HTC: High Temperature Capacitor	Ex.: 0805 : 2.0×1.25 mm 1210 : 3.2×2.5 mm 1812 : 4.6×3.2 mm 2220 : 5.7×5.0 mm	X: X7R	Ex.: 102:10×10^2 224:22×10^4	Ex.: K: +/- 10% M: +/- 20%	Ex.: 025:25Vdc 050:50Vdc	T: Taping & Reel B: Bulk

◆ Characteristic





◆ Dimension



Unit : mm [inches]

TYPE	L	W	T (max)	B (min)	BW (min)
0603	1.60±0.1 [.063±.004]	0.80±0.1 [.031 ±.004]	0.90 [.035]	0.40 [.016]	0.15 [.006]
0805	2.00±0.2 [.079±.012]	1.25±0.2 [.049 ±.008]	1.45 [.057]	0.70 [.028]	0.20 [.008]
1206	3.20±0.3 [.126±.012]	1.60±0.2 [.126±.012]	1.80 [.071]	1.50 [.059]	0.30 [.012]
1210	3.20±0.3 [.126±.012]	2.50±0.2 [.098±.008]	1.80 [.071]	1.60 [.063]	0.30 [.012]
1812	4.60±0.3 [.181±.012]	3.20±0.3 [.126±.012]	2.20 [.087]	2.50 [.098]	0.30 [.012]
2220	5.70±0.4 [.220±.016]	5.00±0.4 [.197±.016]	2.20 [.087]	3.50 [.137]	0.30 [.012]

◆ Capacitance Range

Dielectric Characteristic	Size	Rated Voltage	Capacitance Range: 102	122	152	182	222	272	332	392	472	562	682	822	103	123	153	183	223	273	333	393	473	563	683	823	104	154	224	274
X7R	0603	50V	B	B	B	B	B	B	B	B	B	B	B	B	B															
	0805	50V							C	C	C	C	C	C	C	C	C	C	C											
	1206	25V													C	C	C	C	C	C	C	C	C	C	C	C				
		50V													C	C	C	C	C	C	C	C	C	C	C	C				
	1210	50V																						C	C	C	C	C	C	
	1812	50V																						D	D	D	D	D	D	
	2220	50V																												D

Symbol Code	S	O	A	B	C	D	E	F	G	H
Thickness(mm)	0.3±0.03	0.5±0.05	0.6±0.1	0.8±0.1	1.0±0.1	1.25±0.15	1.6±0.2	2.0±0.2	2.4±0.2	2.8±0.2

■ ***Other dimensions, capacitance values and voltages rating are available. Please contact HEC.***