



Capacitors - High Temperature Capacitors (HTC)  
**Chips 200°C, SMT**



**Features:**

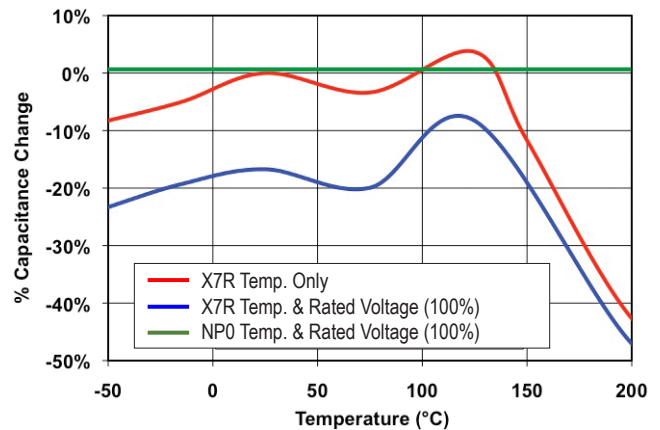
- Stable 200°C Operation
- Compact SMD Chip
- DC Voltage Ratings 50, 100, 200V
- Polyterm® Termination Option
- Sn-Pb Termination Option
- Class I and Class II Available
- Operating Temperature Range: -55°C to +200°C
- RoHs Compliant

**Common Applications:**

- Down Hole / Drilling Electronics
- High Temperature Modules
- Industrial Equipment

**Electrical Characteristics**

Type	NP0	X7R
Operating Range:	-55 to +200°C	-55 to +200°C
Temperature Coefficient:	0±30ppm/°C (-55to+125°C)	0±15% (-55to+125°C)
200°C Cap. Drop:	-0.5% max.	-45% max.
Dissipation Factor:	0.001 (0.1%) max.	0.020 (2.0%) max.
Aging Rate:	None	<1.0% per decade
Insulation Resistance:	25°C IR >100GΩ or 1000ΩF (whichever 200°C IR >1ΩF or 100MΩ is less)	
Withstanding Voltage:	2.5 X WVDC for ratings ≤ 200 VDC 1.5 X WVDC for ratings 201-500 VDC	
Test Conditions:	C > 100 pF; 1kHz ±50Hz; 1.0±0.2 VRMS C ≤ 100 pF; 1Mhz ±50kHz; 1.0±0.2 VRMS	



**HOW TO ORDER**

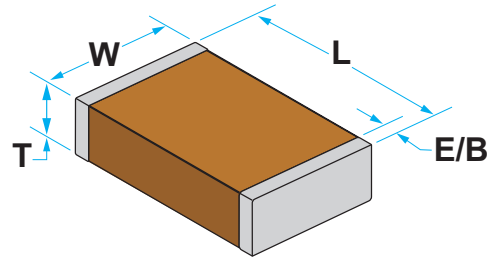
HU	CP	500	W	103	K	1	GV	001	B
Subfamily	Size	Voltage	DTC	Capacitance	Tol	Mark	Termination	Special Code	Pack
HU = High Temp Chips 200°	CF = 0402 CP = 0603 CT = 0805 DD = 1206 DF = 1210 DR = 1812 DV = 1825 EH = 2225	250 = 25 V 500 = 50 V 101 = 100 V 201 = 200 V	G = NP0/COG W = X7R	1st two digits are significant; third digit denotes number of zeros. 102 = 1000 pF 103 = 0.01 μF 104 = 0.10 μF	NP0 J = ± 5% K = ± 10% X7R K = ± 10% M = ± 20%	1 = No Mark	GV = Ni/Sn (RoHS) NT = Ni/SnPb GP = Pd/Ag (RoHS)	001 = Special Code	E = 7" Reel Emb Tape T = 7" Reel Paper Tape









Example: HUCP500W103K1GV001B Capacitors High-Temp Chips 200°, 0603, X7R, 50V, 0.01μF±10%, Ni/Sn (RoHS), Bulk



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**Mechanical Characteristics**



EIA	RATED VOLTAGE	NP0 DIELECTRIC		X7R DIELECTRIC	
		MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
 <b>0402</b>	25 VDC	10 pF	270 pF	100 pF	4700 pF
	50 VDC	10 pF	120 pF	100 pF	1500 pF
	100 VDC	10 pF	82 pF	10 pF	390 pF
	200 VDC	10 pF	50 pF	10 pF	100 pF
 <b>0603</b>	25 VDC	10 pF	820 pF	1000 pF	0.022 pF
	50 VDC	10 pF	330 pF	1000 pF	0.010 pF
	100 VDC	10 pF	220 pF	100 pF	2200 pF
	200 VDC	10 pF	120 pF	100 pF	560 pF
 <b>0805</b>	25 VDC	100 pF	2200 pF	1000 pF	0.100 μF
	50 VDC	100 pF	1500 pF	1000 pF	0.033 μF
	100 VDC	100 pF	1000 pF	1000 pF	0.010 μF
	200 VDC	10 pF	680 pF	100 pF	2200 pF
 <b>1206</b>	25 VDC	100 pF	6800 pF	1000 pF	0.220 μF
	50 VDC	100 pF	3300 pF	1000 pF	0.100 μF
	100 VDC	100 pF	2200 pF	1000 pF	0.022 μF
	200 VDC	100 pF	1500 pF	1000 pF	5600 pF
 <b>1210</b>	25 VDC	1000 pF	0.015 μF	0.047 μF	0.470 μF
	50 VDC	1000 pF	5600 pF	0.047 μF	0.220 μF
	100 VDC	100 pF	4700 pF	0.047 μF	0.056 μF
	200 VDC	100 pF	3300 pF	0.0047 μF	0.015 μF
 <b>1812</b>	25 VDC	1000 pF	0.033 μF	0.033 μF	1.000 μF
	50 VDC	1000 pF	0.012 μF	0.012 μF	0.470 μF
	100 VDC	1000 pF	0.010 μF	0.010 μF	0.180 μF
	200 VDC	1000 pF	8200 pF	8200 μF	0.047 μF
 <b>1825</b>	25 VDC	1000 pF	0.033 μF	0.10 μF	2.200 μF
	50 VDC	1000 pF	0.027 μF	0.10 μF	1.000 μF
	100 VDC	1000 pF	0.022 μF	0.10 μF	0.560 μF
	200 VDC	1000 pF	0.018 μF	0.10 μF	0.150 μF
 <b>2225</b>	25 VDC	1000 pF	0.100 μF	0.10 μF	3.300 μF
	50 VDC	1000 pF	0.039 μF	0.10 μF	1.500 μF
	100 VDC	1000 pF	0.033 μF	0.10 μF	0.820 μF
	200 VDC	1000 pF	0.022 μF	0.10 μF	0.220 μF