

## Multilayer Ceramic Capacitors

[Automotive Grade MLCCs]

# ACC Series



### ◆ Features

- AEC-Q200 & IATF16949 qualified.
- Suitable for harsh Automotive environments without additional qualification testing
- Available with Polymer Termination (Super Term) to prevent mechanical cracking
- High Reliability
- RoHS compliant
- 250Vac, X1/Y2 Safety capacitors available

### ◆ Applications

- Power supplies
- Lighting
- Isolation
- Powertrain
- Safety equipment
- Custom applications , BMS ,On board charger

### ◆ Summary of Specifications

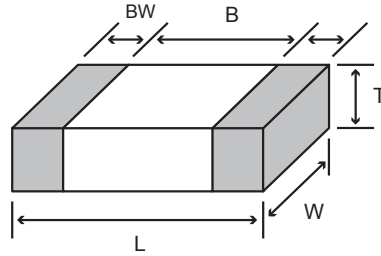
Operation Temperature	-55 °C to +125 °C	
Rated Voltage	16Vdc ~ 1000Vdc , 250Vac X1/Y2 Safety capacitors	
Temperature Coefficient	NP0 : $\leq \pm 30\text{ppm}/^\circ\text{C}$	-55 °C to +125 °C (EIA Class I )
	X7R : $\pm 15\%$	-55 °C to +125 °C (EIA Class II)
Capacitance Range	NP0 : 10pF ~ 47nF ; X7R : 330pF ~ 4.7uF	
Dissipation Factor	NP0 : More than 30pF $Q \geq 1000$ ; 30pF & below $Q \geq 400+20C$ X7R : Range 2.5% to 10%	
Insulation Resistance	10GΩ or 500/C Ω, whichever is smaller (C in Farad)	
Aging	NP0 : 0% ; X7R : 2.5% per decade of time	
Dielectric Withstanding	V=100V (Cap<10uF)	250% rated voltage
	V < 100V	250% rated voltage
	100V ≤ V < 500V	200% rated voltage
	500V ≤ V < 1000V	150% rated voltage
	1000V ≤ V	120% rated voltage

### ◆ How To Order

ACC
2220
N
333
K
102
T
I
X
Y

Product Code	Chip Size	Dielectric	Capacitance Unit : pF	Tolerance	Rated Voltage	Packaging	Thickness (mm) (Optional)	Special Requirement	Suffix Code
ACC : Automotive Grade Capacitors	EX : 0805 1206 1210 1812 1825 2222	EX : N : NP0 X : X7R	EX : 100 : 10 x 10 <sup>0</sup> 221 : 22 x 10 <sup>1</sup> 332 : 33 x 10 <sup>2</sup> 473 : 47 x 10 <sup>3</sup> 684 : 68 x 10 <sup>4</sup>	Ex: J: +/- 5% K: +/-10% M: +/-20%	EX : 025 : 25Vdc 050 : 50Vdc 101 : 100Vdc 251 : 250Vdc 501 : 500Vdc 102 : 1000Vdc 202 : 2000Vdc	EX : T : T&R 7" R : T&R 13" B : Bulk	Ex: D: 1.25±0.20 E: 1.60±0.20 I : 3.2±0.20	EX: X: Polymer Termination (Super Term) O: Arc Prevention Coating Z: Coating & Polymer Termination	Y

◆ Dimensions



Unit : mm

SIZE	L	W	T (max)	B (min)	BW (min)
0402	1.00±0.05	0.50±0.05	0.70	0.30	0.15
0603	1.60±0.10	0.80±0.10	1.00	0.40	0.15
0805	2.00±0.20	1.25±0.20	1.55	0.70	0.20
1206	3.20±0.25	1.60±0.20	1.90	1.50	0.30
1210	3.20±0.25	2.50±0.20	3.00	1.60	0.30
1808	4.60±0.30	2.00±0.20	1.55	2.50	0.30
1812	4.60±0.30	3.20±0.30	3.10	2.50	0.30
1825	4.60±0.30	6.35±0.40	3.00	2.50	0.30
2220	5.70±0.40	5.00±0.40	3.10	3.50	0.30
2225	5.70±0.40	6.35±0.40	3.00	3.50	0.30

◆ Thickness Dimensions

Symbol Code	O	B	C	D	E	F	G	M	H	I
Thickness(mm)	0.50±0.05	0.85±0.15	1.0+0.1/-0.05	1.25±0.20	1.6±0.20	2.0±0.20	2.4±0.20	2.50±0.20	2.8±0.20	3.20±0.20

- Other dimensions, capacitance values and voltage ratings are available on request. Please contact Holy Stone.
- Specifications & Test Conditions for 0603 and larger sizes, please see P56~P60.
- Specifications & Test Conditions for 0402, please contact Holy Stone.





