

# EDCON-COMPONENTS



## Specifications

Miniature size wide capacitance  
 Ammo Tape available for automati-placement  
 Coating by epox resin, creates the excellent humidity resistance and prevent body from damaging during soldering and washing  
 Industry standard size and vanous load spacing available.

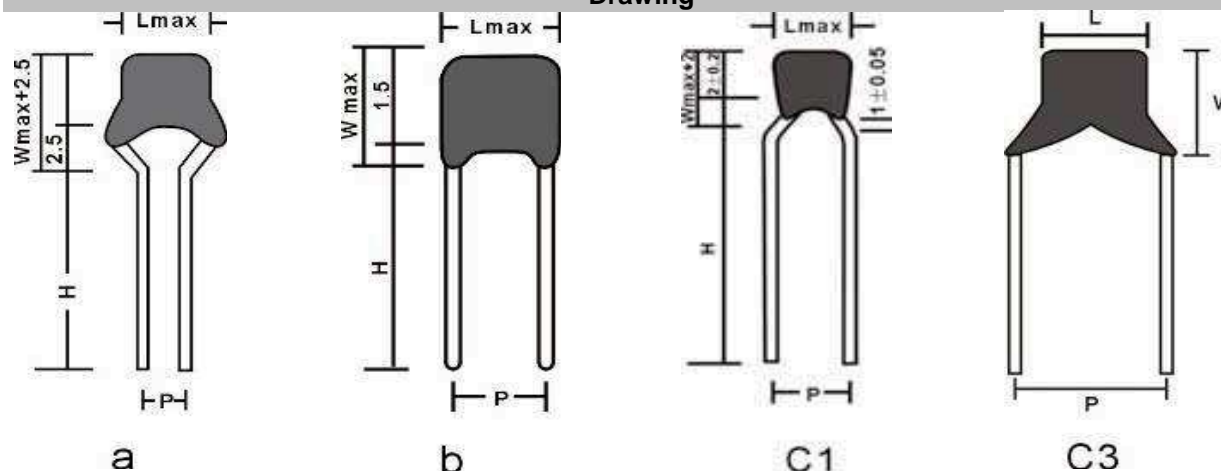
**Note 1:** Standard Lead length  $10 \pm 1$ mm it can be adjusted between 3,0~35mm per customer request

**Note 2:** The Diameter of lead is  $\varnothing 0,5$ mm  $\pm 0,05$ mm

**Note 3:** The standard shape b, C1, C3 a Shape and C2 shape are on customer request.

**Note 4:** High Voltage radial MLCC 200V, 500V, 1000V, 2000V etc. are on customer request.

## Drawing



Chip	Shape	Dimension				Volt	Capacitance Range (pf)		
		P $\pm 0,5$	Lmax.	Wmax	Tmax.		NPO	X7R	Y5V(Z5U)
O603	b	2,54	4,2	3,8	3,8	25	OR5 ~103	101 ~105	103 ~475
	C1	5,08				50	OR5 ~103	101 ~105	103 ~475
	C3	5,08				100	OR5 ~103	101 ~105	103 ~475

Chip	Shape	Dimension				Volt	Capacitance Range (pf)		
		P $\pm 0,5$	Lmax.	Wmax	Tmax.		NPO	X7R	Y5V(Z5U)
O805	b	2,54	4,2	3,8	3,8	25	OR5 ~103	101 ~105	103 ~475
	C1	5,08				50	OR5 ~103	101 ~474	103 ~105
	C3	5,08				100	OR5 ~103	101 ~104	103 ~104

<b>Multilayer Capacitor Radial Style</b>	
Part No.:	<b>I29002</b>
Customer:	

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	10.08.2015
APPD:	Schumi			FINISH	Jamy		Sheet No.		1 from 8

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Chip	Shape	Dimension				Volt	Capacitance Range (pf)			T.C	NPO / COG	X7R/B	Y5V(Y/F) Z5U/ E					
		P±0,5	Lmax.	Wmax	Tmax.		NPO	X7R	Y5V(Z5U)									
1206	a	2,54	5,5	4,5	3,8	25	0R5 ~104	101 ~225	103 ~106	Electrical properties	Stable Class I Dielectric	Stable Class II Dielectric	With predictable change of properties with temperature, voltage frequency and time this dielectric is ferroelectric and offer higher capacitance ranges than class I	With high twist dielectric constant and greater variation of properties with temperature and test conditions, very high capacitance per unit volume.				
	b	3,5				50	0R5 ~473	101 ~225	103 ~106									
	C1	5,08				100	0R5 ~473	101 ~105	103 ~155									
1210	a	2,54	5,5	5,5	3,8	25	0R5 ~104	101 ~106	103 ~106									
	b	3,5				50	0R5 ~473	101 ~475	103 ~106									
	C1	5,08				100	0R5 ~473	101 ~105	103 ~155									
1812	b	5,08	8,5	6,5	3,8	25	0R5 ~104	101 ~106	103 ~106						Application	Use in circuits reoring stable performance	Use as blocking, coupling, By-passing discriminating elements.	Suited for By-passing and coupling application such as store power and memory circuit
						50	0R5 ~104	101 ~106	103 ~106									
						100	0R5 ~473	101 ~105	103 ~155									
2225	b	5,5	10,5	9,5	3,8	25	0R5 ~104	101 ~106	103 ~106						Capacitance Range	1pf ~ 10nf	100pf ~ 5µF	1nf ~ 14,7µF
						50	0R5 ~104	101 ~106	103 ~106									
						100	0R5 ~473	101 ~105	103 ~155									
3035	b	7,5	12,5	10,5	4,5	25	0R5 ~104	101 ~106	103 ~106	Operating Temperature	0 ±30ppm/°C 55°C ~ +125°C	±15% 55°C ~ +125°C	+30% ~ -80% 25°C ~ +85°C	+22% ~ -56% 10°C ~ +85°C				
						50	0R5 ~104	101 ~106	103 ~106									
						100	0R5 ~473	101 ~105	103 ~155									

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**Electrical Properties standard**

Item	Test Standard			
	NPO/CG/GH/RH/UJ/SL	X7R (B)	Z5U / E	Y5V (Y/F)
Capacitance	±5%	±10%	.+80% ~ -20%	±20%
Dissipation Factor	<0,15%	<3,5%	<5%	<7,5% (200nf)
				<10% (200-470nf)
				<15% (470-1000nf)
Insulation Resistance	<10nf	<25nf	<25nf	<25nf
	IR<1000C0M Ω	IR>25nf	IR>25nf	IR>25nf
	C> 10nf	C> 25nf	C> 25nf	C> 25nf
	R * C >100S	R * C >100S	R * C >100S	R * C >100S
Withstanding Voltage	2,5 rated voltage	2,5 rated voltage	2,5 rated voltage	2,5 rated voltage

**Test Condition**

Test Frequency	1MHz ( C>1000pf 1KHz)	1KHz	1KHz	1KHz
Test Voltage of Cap & D.F.	1 ± 0,2V	1 ± 0,2V	0,3 ± 0,2V	0,3 ± 0,2V
Test Voltage of IR	Rated Voltage	Rated Voltage	Rated Voltage	Rated Voltage
Temperature	10 ~ 25°C	10 ~ 25°C	10 ~ 25°C	10 ~ 25°C
Humidity	<75%	<75%	<75%	<75%

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Customer:  
email: info@edcon-components.com



## Quality Item & Reliability inspection

Item	Test Specifications	Test Methods	
Solderability	Termination area shall be at least 75% covered with a new solder coating.	The lead wire of a capacitor shall be dipped into a 25% methanol solution of rosin and then into molten solder at 235°C for 2 + 0.5 seconds, in both cases the depth of dipping is up to about 2.5 to 3.0 mm from the root of lead.	
Resistance to soldering heat	There shall be no evidence of damage or flash over during the test and sign in focus.	The lead wire shall be immersed into the melted solder of 260 +5°C up to about 2.5 to 3.0 mm from the main body for 5 +0.5 sec and the specified items shall be measured after leaving for 24 +/- 2 hours	
	T.C.		$\Delta C/C <$
	CG/CH/R/H		0,5% or 0,5 pf
	UJ/SL		1% or 1 pf
	B		$\pm 10\%$
	Y (F) E	$\pm 20\%$	
Life Test	Appearance	There shall be no evidence of damage or flash over during the test and sign in focus	
	Capacitance change	NPO: <2%; X7R <20%; Y5V: <30%	
	D.F	NPO: <0,3	Condition
		X7R: <5%	Temperature
		Y5V: <7%	Time
	I.R	R.C. <258	Voltage
			Recovery time
		NPO   X7R   Y5V   Z5U	
		. +125°C   . +85°C	
		T=1000h	
		V=1,5Vr	
		24 ± 1h	

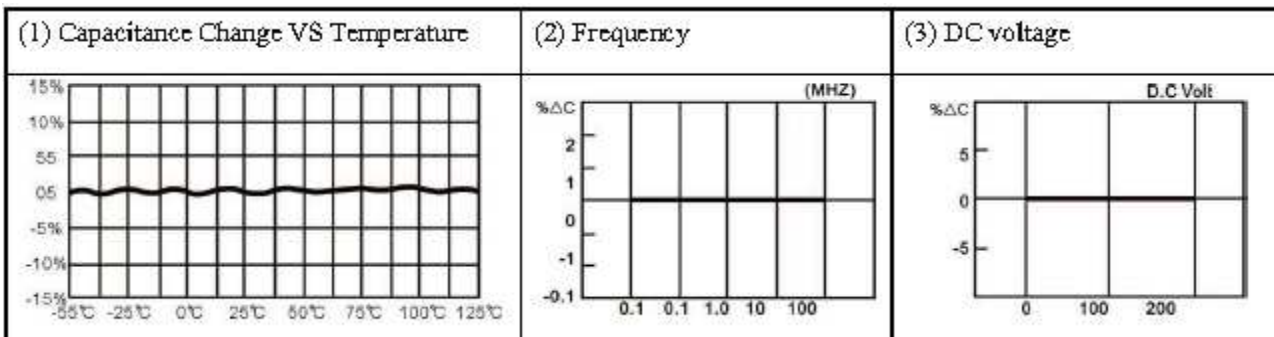
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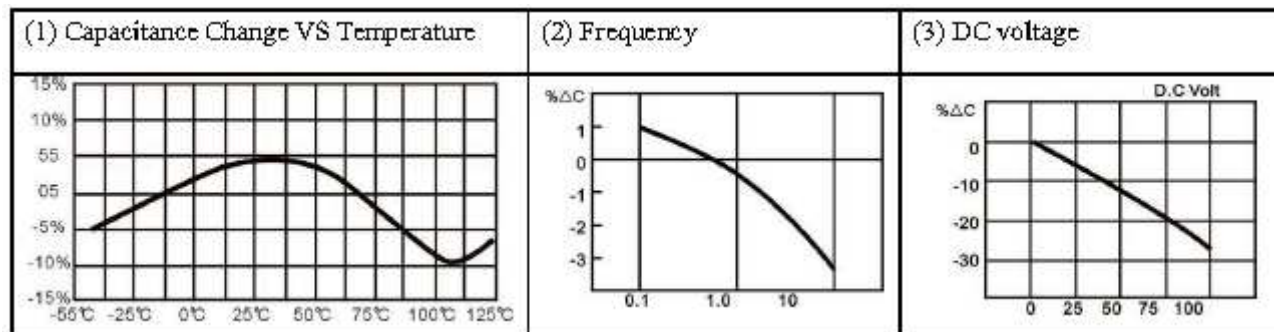


Capacitance Change: VS Temperature Characteristics; Voltage; Frequency Profiles

NPO



X7R



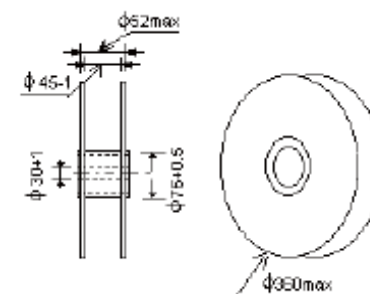
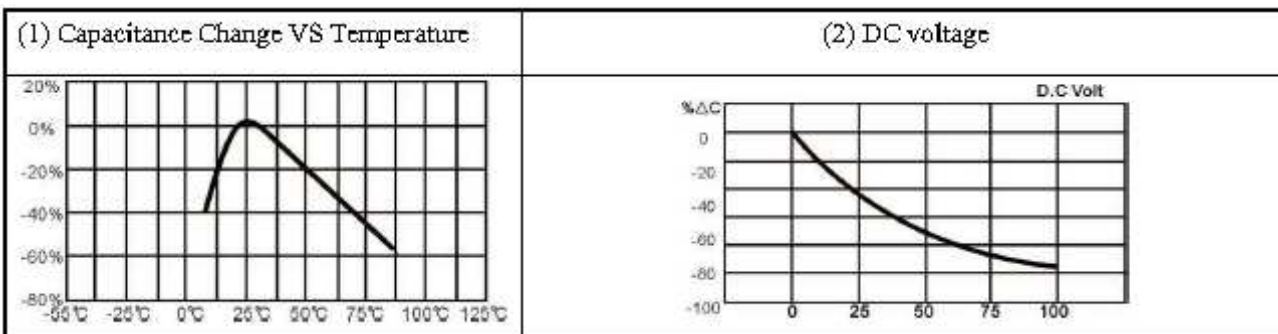
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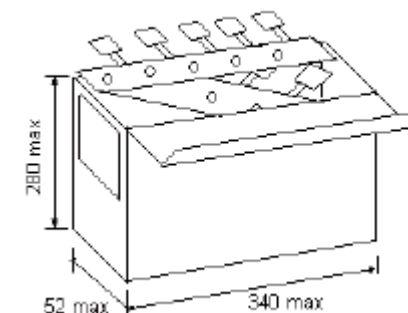
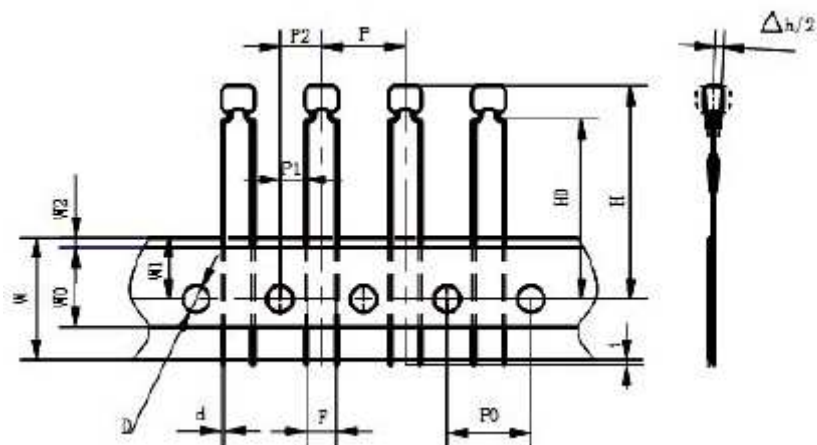


Capacitance Change: VS Temperature Characteristics; Voltage; Frequency Profiles

Z5U



Packing Information Tape/Reel Packing



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Ordering Informations

Serie	Voltage	Material	Range	Size Code	Tolerance	Lead Style	ROHS	Packing		
I29002	500	B	101	A	C	B	R	BU		

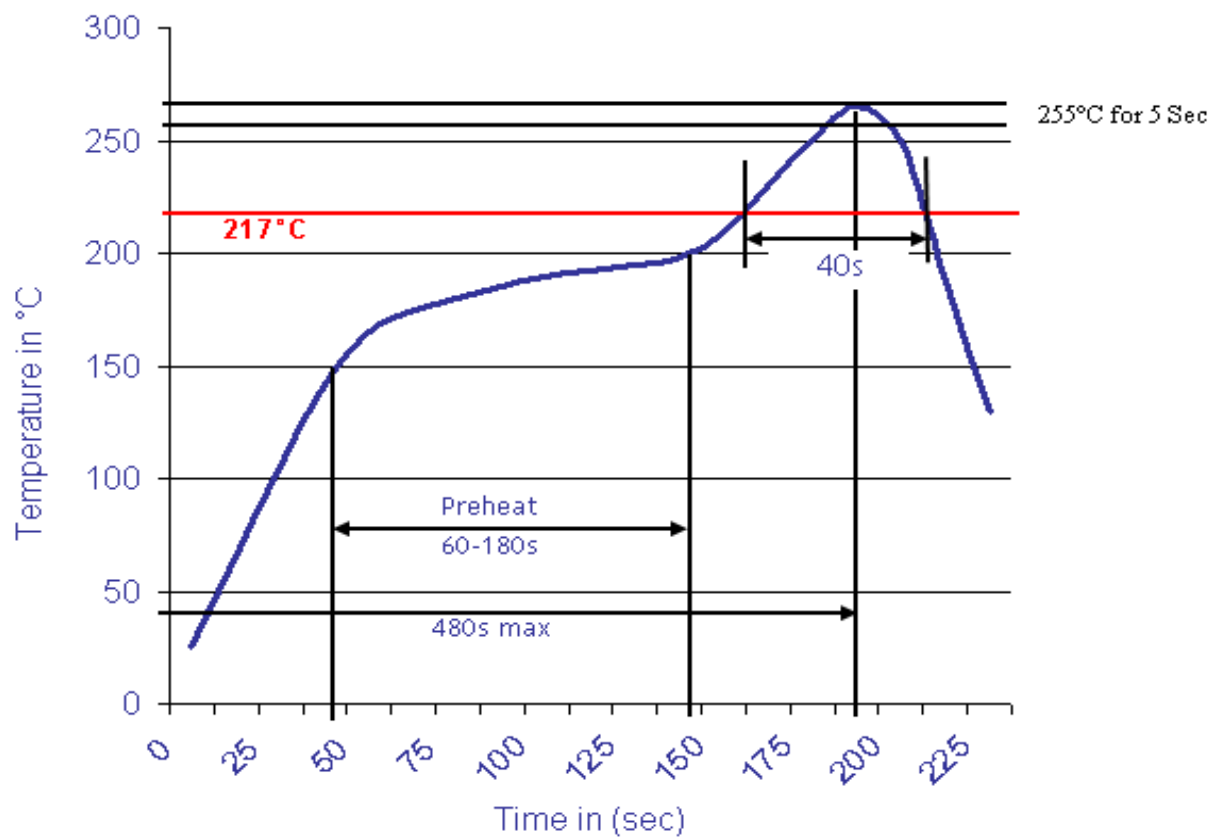
500= 50Volt	B= X7R	101= 100pf	A= Size 0603	C= ±0,25pf	B= Type	R= ROHS conform	BU= Bulk-Ware		
101= 100Volt	X= X5R	100= 10pf	B= Size 0805	D= ±0,5pf	A= Type	N= NON ROHS conform	TR= Tape Reel		
201= 200Volt		1R0= 1,0pf	C= Size 1206	J= ±5%	C= Type		TB= Tape Box (Ammo)		
501= 500Volt		Range from 0,5pf ~ 10µf	D= Size 1210	K= ±10%					
102= 1000Volt			E= Size 1812	M= ±20%					
202= 2000Volt			F= Size 2220	Z= +80% ~ -20%					
			G= Size 3035	V= +20% ~ -10%					

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### Classification Reflow Profile (JEDEC J-STD-020C)



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