



TMCC03 Radial Multilayer Ceramic Capacitor

Distributeur : JBG-METAFIX

Feature

- Miniature size,wide capacitance,tape and reel packing available for auto-placement.
- Coating with epoxy resin,creates the excellent humidity resistance and prevents body from damag during soldering and washing.
- Industry standard size and various lead spacing available



T.C	NPO/COG	X7R (B)	Y5V(Y/F)	Z5U (E)
Dielectric type	Stable class I Dielectric		Stable class II Dielectric	
Electrical properties	With negligible dependence of electrical properties on t-emperature voltage frequen cyand time	With predictable change of properties with tempera-ture voltage、frequency and time、this dielectric is ferroelectric and offers higher capacitance ranges than class I.		With high twistdielectric constant and gerater variation of properties with temperature and test conditions、very high capacitance per unit volume.
Application	Use in ciprcuits requiring stable performance	Use as blocking、by-passing discriminating element		Suited for by-passing and coupling application such as store power and memory circuit.

General Specification

	CC4(NPO)	CC4(X7R)	CT4(Y5V'Z5U)
Capacitance Range	OR5 to 104	221 to 225	103 to 106
Temperature Coefficient	0±30PPm/℃ 0±60PPm/℃ (-55 to+125)	±15%(-55℃ to 125℃)	+30%~-80%(-25℃ to +85℃) +22%~-56%(+10℃ to +85℃)
Insulation Resistance	C≤10nF R≥10000M C>10nF C.R≥100S	C≤25nF R≥4000M C>25nF C.R≥100S	
With Standing Voltage	2.5 rated voltage		
Dissipation Factor	0.15% max (20℃.1MHZ.1VDC)	2.5% max (20℃.1KHZ.1VDC)	5.0% max (20℃.1KHZ.0.3VDC)
Rated Voltage	25,50,63,100VDC		25 50 63VDC
Capacitance Tolerance	B=±0.1PF D=±0.5PF G=±2% K=±10%	C=±0.25PF F=±1% J=±5% M=±20% K=±10% M=±20%	K=±10% M=±20% S= +50 -20 % Z= -20 %
Life Test(1000hours)	200%rated voltage at +125℃ 1000h		150%rated voltage at +85℃ 1000h

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 of $235^{\circ}\text{C} \pm 5^{\circ}\text{C}$, 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 $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$, up to about 2.5 to 3.0 mm from the main body for 5 ± 0.5 sec and the specitied items shall be measured after leaving for 24 ± 2 hours.				
	T.C.	$\Delta C/C \leq$					
	CG/CH/RH	0.5% or 0.5pF					
	UJ/SL	1% or 1pF					
	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.	Condition	NPO	X7R	Y5V	Z5U
	$\Delta C/C \leq$ Capacitance change	NPO $\leq 2\%$; X7R $\leq 25\%$ Y5V:: $\leq 30\%$	Temperature	$+125^{\circ}\text{C}$		$+85^{\circ}\text{C}$	
	D.F.	NPO $\leq 0.3\%$; X7R $\leq 5\%$ Y5V:: $\leq 7\%$	Time	T=1000h			
	I.R	R.C>25S	Voltage	V=1.5VR			
			Recovery time	24 ± 1 h			



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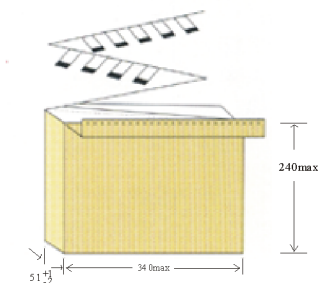
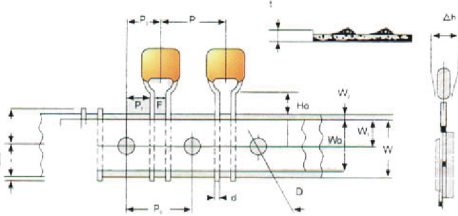
SIZE CODE,CAPACITANCE AND VOLTAGE

	Size code	shope	Dimensions:(mm)						Voltage	Capacitance(PF)		
			F (±0.5)	Hmin (±0.5)	Lmax	Wmax	Tmax	D		COG(NPO)	X7R	Y5V (Z5U)
	0805	A	2.54	5.0					25V	OR5~332	221~105	103~105
		B	2.54	10.0					50V	OR5~222	221~105	
		C	5.08	5.0 10.0	8.8	3.8	3.8	0.5	100V	O5R~102	221~683	103~684
		D	5.08	5.0								
	1206	A	2.54						25V	OR5~682	102~105	103~125
		B	3.50	10.0	5.0	4.5	3.8	0.5	50V	OR5~472	102~105	103~105
		C	5.08						100V	OR5~392	102~105	
	1210	B	3.50	10.0	5.0	5.5	3.8	0.5	25V	561~103	102~334	104~155
		C	5.08						50V	561~682	102~205	
									100V	561~472	102~105	
	1812	B	4.57	10.0	8.5	6.5	3.8	0.5	25V	102~153	103~474	154~335
									50V	102~103	103~334	
									100V	102~682	103~105	
	2225	B	5.50	10.0	10.5	9.5	4.2	0.5	25V	102~223	103~105	684~475
									50V	102~223	103~105	
									100V	102~103	103~474	
	3035	B	7.50	10.0	12.5	10.5	4.2	0.5	25V	102~104	103~225	105~106
									50V	102~473	103~225	105~685
									100V	102~333	103~105	

* Lead spacing determined by customer requirements

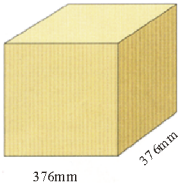
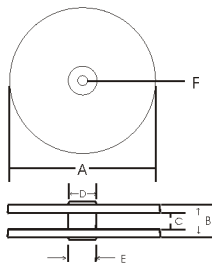
PACKAGING STYLE

Ammo Package



Code	P	P0	W	W0	H2	W2	H1	D	T	Δh	H	S	P1	P2	ΔP
Dim	12.7	12.7	18	5	9	0	32.5	4	0.5	0	16-18	5	3.85	6.35	1.3
ToI	±1	±0.3	+1 -0.51	MIN	±0.5	+1	MAX	±0.2	±2.0	±0.2	±0.5	±0.5	±0.7	±0.4	MAX

Reel Package



A	B	C	D	E	F
355-365	50.8max	86.36max	102.01max	86.36max	25.40-30.48max

Packaging Quantity

Ree Package	Ammo Package	Bulk Package
2500	4000	1000

Dimension of tope coiling package for radial lead capacitors