

APPLICATION

Hi-K Dielectric suited for applications where PCB real estate is at a premium and usage is at near room temperature with low DC bias.



PERFORMANCE SPECIFICATIONS

Temperature Coefficient:

X5R +15% -15% ΔC , -55°C to 85°C
 Y5V +22% -82% ΔC , -30°C to 85°C

Dissipation Factor:

X5R	Y5V
Maximum DF; 6.3V~10V - 3.5%	Maximum DF; 6.3V~10V - 10%
16V~25V - 3.5%	16V~25V - 7%
50V - 2.5%	50V~100V - 5%

Insulation Resistance:

100 Ω F or 10G Ω , whichever is less @ Rated Voltage 25°C.

Dielectric Strength:

2.5 times rated voltage D.C.

Aging:

X5R Maximum 2.5% per decade hour.
 Y5V Maximum 7% per decade hour.

Test parameters:

(X5R) 1 kHz and 1 vms if capacitance $\leq 10\mu F$
 120 Hz and 0.5 vms if capacitance $> 10\mu F$
 (Y5V) 1 kHz and 1 vms if capacitance $\leq 10\mu F$
 120 Hz and 0.5 vms if capacitance $> 10\mu F$
 1 kHz and 1 vms

Capacitance Tolerance Available:

M, Z

HOW TO ORDER

C

L

0805

X5R

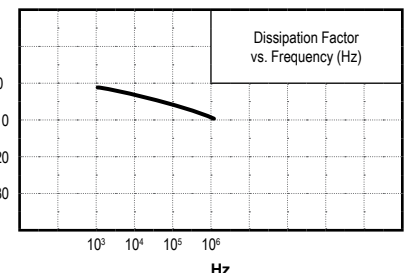
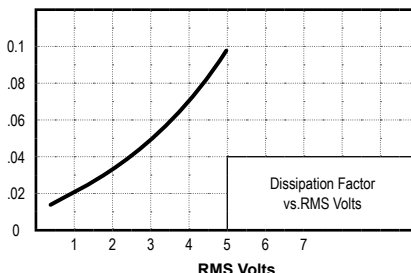
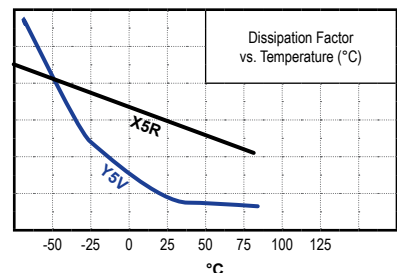
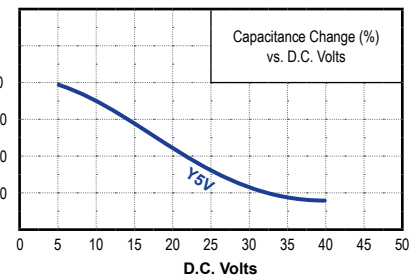
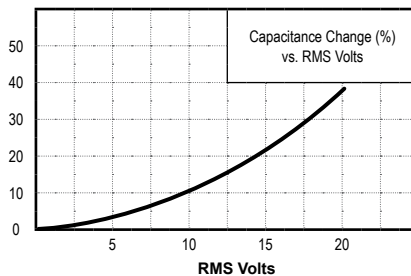
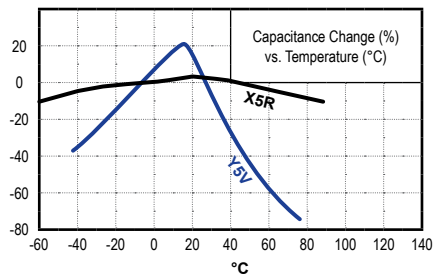
105

K

W

T

UTC P/N STYLE	VOLTAGE	BODY SIZE	TEMPERATURE COEFFICIENT	CAPACITANCE CODE	TOLERANCE	TERMINATION	PACKAGE STYLE
C = MLCC CHIP	A = 6.3V C = 10V E = 16V L = 25V G = 50V B = 100V	0402 0603 0805 1206 1210 1812	X5R Y5V	2 significant digits are used plus the third character then represents the number of zeros to follow	K = 10% M = 20% Z = -20% / +80%	W = 100% tin termination & RoHS - Lead Free compliant product B = Soft Termination [consult factory]	T = Tape & Reel



These typical curves are for 50 volt parts.

X5R																									
Size	0402					0603					0805					1206					1210				EIA Code
Rated Voltage (VDC)	6.3V	10V	6.3V	10V	16V	25V	50V	6.3V	10V	16V	25V	50V	6.3V	10V	16V	25V	50V	6.3V	10V	16V	25V	EIA Code			
Capacitance	0.010μF																				103				
	0.015μF																					153			
	0.022μF																					223			
	0.033μF																					333			
	0.047μF	N			S	S	S					D	D									473			
	0.068μF																						683		
	1.0μF	N			S	S	S		D	D	D	D		G			P					105			
	1.5μF																						155		
	2.2μF			S	S	S	S			D	D	D		G			P					225			
	3.3μF													G									335		
	4.7μF			S					D	D	D			P	P	P	P						475		
	6.8μF																						685		
	10μF	N			S	S			D	D	D			P	P	P	P	P	K				106		
	15μF																						156		
22μF	N							D	D				P	P	P				K	K		226			
47μF								D					P	P				K	K	K		476			
100μF													P					K				107			

Y5V																								
Size	0402					0603					0805				1206				1210		1812			EIA Code
Rated Voltage (VDC)	6.3V	10V	16V	25V	50V	10V	16V	25V	50V	16V	25V	50V	100V	10V	25V	50V	100V	50V	100V	10V	50V	100V	EIA Code	
Capacitance	0.010μF				N				S			A	B		B	B	B		C			D	103	
	0.015μF				N				S			A	B		B	B	B		C			D	153	
	0.022μF				N				S			A	B		B	B	B		C			D	223	
	0.033μF				N				S			A	B		B	B	B		C			D	333	
	0.047μF				N				S			A	B		B	B	B		C			D	473	
	0.068μF			N	N				S			A	B		B	B	B		C			D	683	
	0.10μF		N	N	N				S			A	B		B	B	B	C	C			D	D	104
	0.15μF		N						S			A	B		B	B	C	C	C			D	D	154
	0.22μF		N						S			A	B		B	B	C	C	C			D	D	224
	0.33μF	N	N						S			A			B	B			C	C		D	D	334
	0.47μF	N	N						S			B			B	B			C			D	D	474
	0.68μF	N						S			B	B			B	B			C			D	D	684
	1.0μF	N					S	X			B	D			B	B			C			D	D	105
	3.3μF						S	X			B	D			C	C			C			D	D	335
10μF																							106	
22μF														P									226	
47μF																				K			476	

Note: Please refer to the chart on page 3 for the corresponding thickness designation.