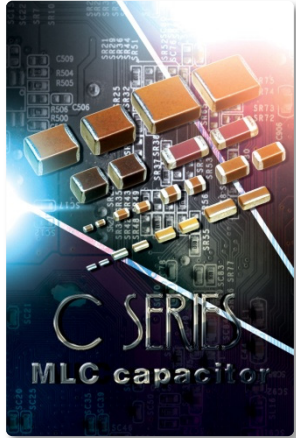


C SERIES | High Temperature Capacitor

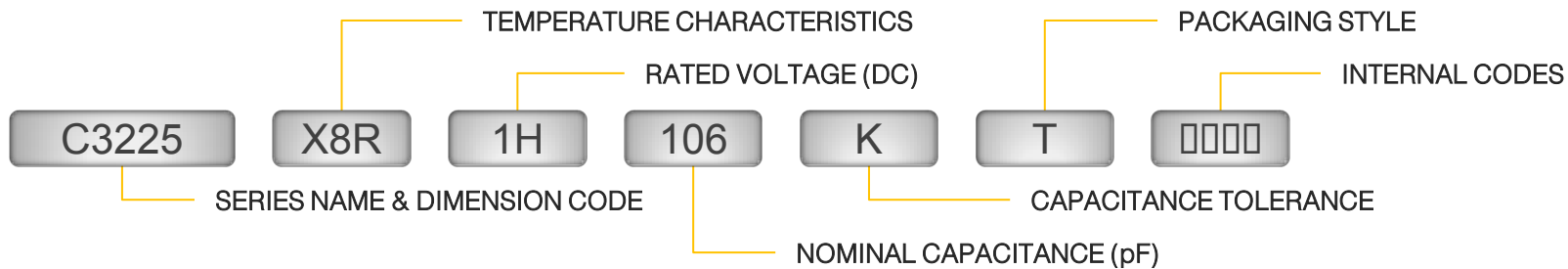


TDK X8R High Temperature Series features stable temperature characteristics and higher reliability performance up to 150°C. This series is designed to meet the needs of automotive applications and/or applications which require operating conditions beyond 125°C of X7R temperature characteristics.

Temperature characteristics of capacitance for this series is stable ($\pm 15\%$) even at the higher temperature ($\sim 150^\circ\text{C}$). Temperature characteristics of capacitance shows highly precise performance (capacitance change of $\pm 7.5\%$) up to 125°C. With precise temperature characteristics, these capacitor are ideal for various high temperature applications such as solar panel inverters, measurement instruments used in high temperature environments as well as smart meter/smart grid application where extreme temperatures are common.

Case Code	L (mm)	W (mm)	T max (mm)
C1005/0402	1.00	0.50	0.50
C1608/0603	1.60	0.80	0.80
C2012/0805	2.00	1.25	1.25
C3216/1206	3.20	1.60	1.60
C3225/1210	3.20	2.50	2.50

Part Number Description



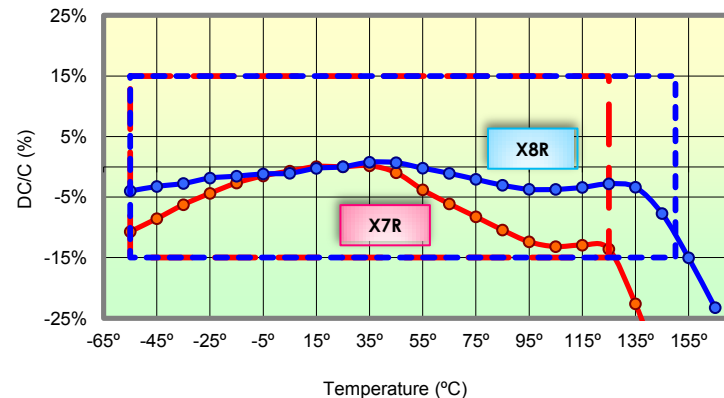
Features:

- ❖ No polarity
- ❖ Stable temperature characteristics (15%) up to 150°C
- ❖ Highly precise temperature characteristics ($\pm 7.5\%$) up to 125°C

Applications:

- ❖ Lighting application
- ❖ Measurement instruments used at high temperature environments
- ❖ Smart Meter/Smart Grid
- ❖ LCD/LED backlighting display
- ❖ Industrial application
- ❖ Solar panel micro-inverter

Temperature Characteristic Curve (X7R vs. X8R)



- Temperature characteristics of capacitance is stable ($\pm 15\%$) even at the higher temperature ($\sim 150^\circ\text{C}$)
- Temperature characteristics of capacitance shows highly precise performance (capacitance change of $\pm 7.5\%$) up to 125°C

C SERIES | High Temperature / X8R

Capacitance (pF)	Cap Code	C1005 0402			C1608 0603				C2012 0805				C3216 1206				C3225 1210	
		1H (50V)	1E (25V)	1C (16V)	2A (100V)	1H (50V)	1E (25V)	1C (16V)	2A (100V)	1H (50V)	1E (25V)	1C (16V)	2A (100V)	1H (50V)	1E (25V)	1C (16V)	1E (25V)	1C (16V)
150	151	X8R																
220	221	X8R																
330	331	X8R																
470	471	X8R																
680	681	X8R																
1,000	102	X8R			X8R	X8R												
1,500	152	X8R			X8R	X8R												
2,200	222	X8R			X8R	X8R												
3,300	332	X8R			X8R	X8R												
4,700	472	X8R			X8R	X8R												
6,800	682	X8R	X8R		X8R	X8R												
10,000	103	X8R	X8R		X8R	X8R												
15,000	153	X8R	X8R		X8R	X8R		X8R										
22,000	223	X8R	X8R		X8R	X8R		X8R										
33,000	333	X8R	X8R	X8R	X8R	X8R		X8R				X8R						
47,000	473	X8R	X8R	X8R	X8R	X8R		X8R				X8R						
68,000	683	X8R	X8R	X8R	X8R	X8R	X8R	X8R				X8R						
100,000	104	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R			X8R						
150,000	154	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R		X8R	X8R					
220,000	224	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R					
330,000	334	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R				
470,000	474	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R			
680,000	684	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R		
1,000,000	105	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	
1,500,000	155	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R
2,200,000	225	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R
3,300,000	335	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R
4,700,000	475	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R
6,800,000	685	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R
10,000,000	106	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R	X8R

 X8R