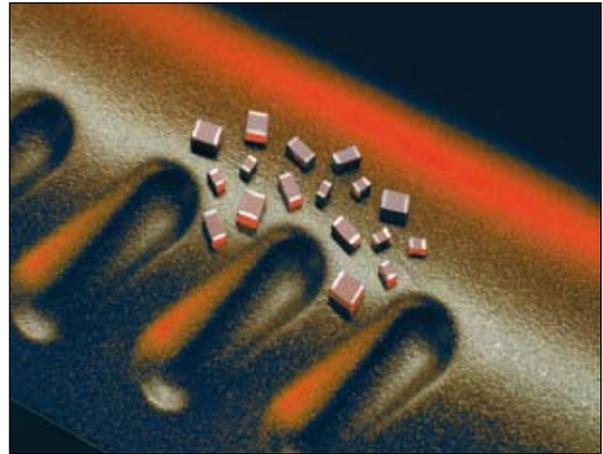


The X8R dielectric will operate from -55°C to +150°C, with a maximum capacitance change ±15% (without applied voltage).

The devices are available in sizes 0805 to 2225, with voltage ranges from 25V to 200V and capacitance values from 1nF to 1.8µF.

The capacitors have been developed by Syfer to meet demand from various applications in the automotive and industrial markets and in other electronic equipment exposed to high temperatures. The increased use of electronics in automotive "under the hood" applications has created demand for this product range.

The X8R range incorporates a specially formulated termination with a nickel barrier finish that has been designed to enhance the mechanical performance of these SMD chip capacitors in harsh environments typically present in automotive applications.



Capacitance Range

1.0nF to 1.8µF

Temperature Coefficient of Capacitance (TCC)

± 15% from -55°C to +150°C

Dissipation Factor (DF)

≤ 0.025

Insulation Resistance (IR)

100G Ω or 1000secs (whichever is the less).

Dielectric Withstand Voltage (DWV)

2.5 x rated voltage for 5±1 seconds, 50 mAmps charging current maximum.

Ageing Rate

1% per decade (typical)

Max cap. values according to the rated d.c. voltage

		0805	1206	1210	1812	2220	2225
Min Cap. value		1.0nF	2.2nF	4.7nF	6.8nF	10nF	10nF
Max. cap value according to the rated dc voltage	25V	56nF	180nF	330nF	680nF	1.5µF	1.8µF
	50V	33nF	120nF	220nF	470nF	680nF	1.0µF
	100V	15nF	56nF	120nF	220nF	470nF	560nF
	200/250V	10nF	33nF	68nF	120nF	220nF	330nF

Ordering information - High Temperature capacitors

1206	Y	100	0473	K	N	T
Chip size	Termination	Voltage d.c.	Capacitance in picofarads (pF)	Capacitance tolerance	Dielectric codes	Packaging
0805 1206 1210 1812 2220 2225	Y = Nickel barrier with polymeric silver termination	025 = 25V 050 = 50V 100 = 100V 200 = 200V 250 = 250V	First digit is 0. Second and third digits are significant figures of capacitance code. The fourth digit is number of zeros following. Example: 0473 = 47000pF = 47nF	J = ±5% K = ±10% M = ±20%	N = X8R	T = 178mm (7") reel R = 330mm (13") reel B = Bulk pack - tubs