

VALUE PROPOSITION

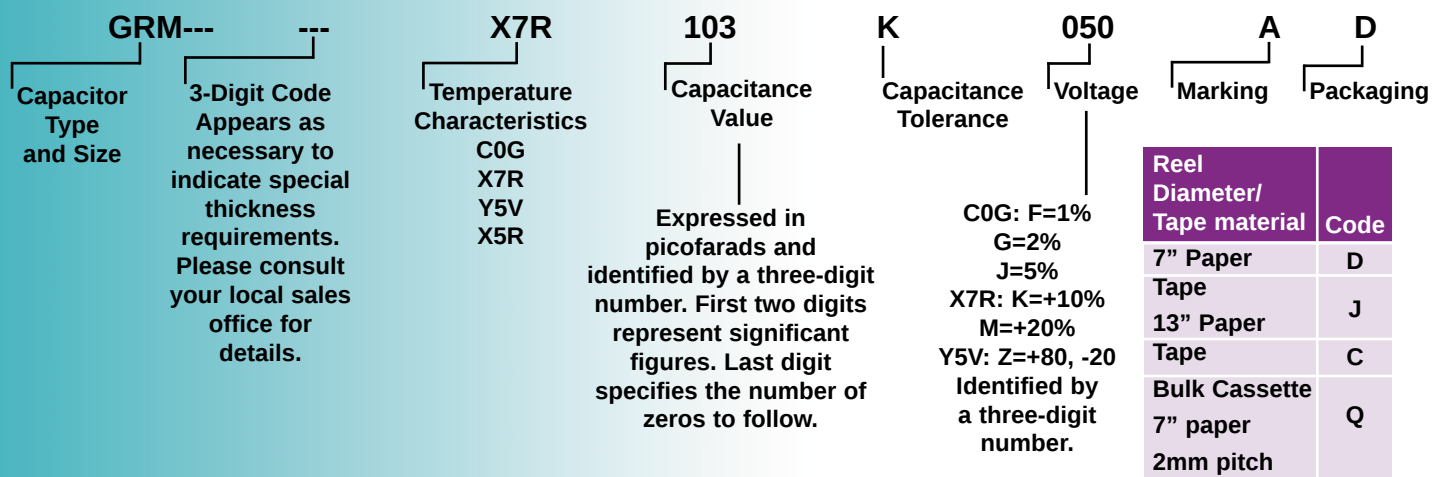
Innovators in Technology; Murata will be the Leading Edge Supplier of Passive Components to the world by providing exceptional customer service, unmatched quality, extensive product offering, advanced design capabilities, and competitive pricing.

Monolithic Ceramic Capacitors

FEATURES

- Miniature size
- No polarity
- Nickel Barrier Termination Standard-highly resistant to metal migration
- Uniform dimensions and configuration
- Suitable for reflow
- GRM39 (0603), GRM40 (0805), and GRM42-6 (1206), suitable for wave soldering
- Minimum series inductance
- Tape and Reel Packaging
- Wide selection of capacitance values and voltages

Part Numbering System



FEATURES

- Large capacitance at low cost because of the use of base-metal materials
- Terminations are made of metal highly resistant to migrations
- Heat generation is low at high frequency because of low dielectric loss
- Compared with aluminum electrolytic capacitors, capacitance can be lower to obtain the same smoothing performance
- Ceramic capacitor has no polarity and ensures long life time. Ideal replacement for tantalum capacitors.

APPLICATIONS

- DC-DC converter
- Noise elimination for LCD bias circuit (Use for only alumina paper or glass epoxy board.)

SMOOTHING BY-PASSING, DE-COUPLING CIRCUIT CAPABILITIES

Char.	Char.	Description			Murata P/N
		Cap.	WV	T(mm)	
Y5V	0805	10 μ F	6.3V	1.25	GRM225 Y5V 106Z 6.3
Y5V	1206	4.7 μ F	16V	1.15	GRM230 Y5V 475Z 16
Y5V	1206	10 μ F	10V	1.15	GRM230 Y5V 106Z 10
Y5V	1210	1 μ F	100V	2.0	GRM235 Y5V 105Z 100
Y5V	1210	4.7 μ F	50V	2.0	GRM235 Y5V 475Z 50
Y5V	1210	10 μ F	25V	2.0	GRM235 Y5V 106Z 25
Y5V	1210	10 μ F	35V	2.0	GRM235 Y5V 106Z 35
Y5V	1210	10 μ F	16V	1.5	GRM235 Y5V 106Z 16
Y5V	1210	22 μ F	10V	1.5	GRM235 Y5V 226Z 10

CIRCUIT TYPE BY CHARACTERISTIC

- X5R and X7R: Coupling, Time Constant, Filter
- Y5V: Smoothing, By-Passing, De-Coupling

Circuit	Char. X5R	Size	Description			Murata P/N
			Cap.	WV	T(mm)	
Coupling	X5R	0402	0.1 μ F	10V	0.5	GRM36 X5R 104K
Time constant	X7R	0805	1 μ F	16V	1.25	GRM40 X7R 105K
Filter	X5R	0805	2.2 μ F	6.3V	1.25	GRM40 X5R 225K
De-coupling	X7R	1206	1 μ F	16V	1.15	GRM42-6 X7R 105K
By-passing	X7R	1206	1 μ F	25V	1.15	GRM42-6 X7R 105K
Smoothing	X7R	1206	2.2 μ F	16V	1.15	GRM42-6 X5R 225K
	X5R	1206	4.7 μ F	10V	1.6	GRM42-6 X5R 475K
	X7R	1206	10 μ F	6.3V	1.6	GRM42-6 X7R 106K
	X7R	1206	1 μ F	50V	2.0	GRM42-2 X7R 105K
	Y5V	1210	4.7 μ F	16V	2.0	GRM42-2 Y5V 475K
By-passing	Y5V	0402	1 μ F	10V	0.5	GRM36 Y5V 105Z
De-coupling	Y5V	0603	1 μ F	10V	0.8	GRM39 Y5V 105Z
	Y5V	0805	1 μ F	25V	1.25	GRM40 Y5V 105Z
	Y5V	0805	2.2 μ F	16V	1.25	GRM40 Y5V 225Z
	Y5V	1206	2.2 μ F	25V	1.15	GRM42-6 Y5V 225Z
	Y5V	1206	4.7 μ F	16V	1.15	GRM42-6 Y5V 475Z
	Y5V	1206	10 μ F	6.3V	1.15	GRM42-6 Y5V 106Z
	Y5V	1206	10 μ F	10V	1.15	GRM42-6 Y5V 106Z

REFERENCES

Information on Murata's product offering can be found at www.murata.com or through our sales office.