

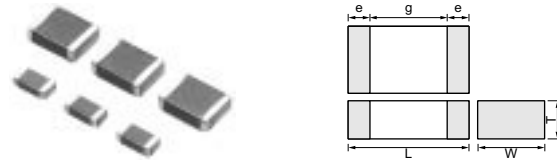
Chip Monolithic Ceramic Capacitors



Medium Voltage Low Dissipation Factor

■ Features

1. Low-loss and suitable for high frequency circuits
2. Murata's original internal electrode structure realizes high flash-over voltage.
3. A new monolithic structure for small, surface-mountable devices capable of operating at high voltage levels
4. Sn-plated external electrodes realize good solderability.
5. Use the GRM21/31 type with flow or reflow soldering, and other types with reflow soldering only.



Part Number	Dimensions (mm)				
	L	W	T	e min.	g min.
GRM21A	2.0±0.2	1.25±0.2	1.0+0.0-0.3	0.3	0.7
GRM31A	3.2±0.2	1.6±0.2	1.25+0.0-0.3		1.5*
GRM31B			1.0+0.0-0.3		
GRM32A	3.2±0.2	2.5±0.2	1.25+0.0-0.3		
GRM32B			1.0+0.0-0.3		
GRM42A	4.5±0.3	2.0±0.2	1.0+0.0-0.3		


*GRM31A7U3D, GRM32A7U3D, GRM32B7U3D : 1.8mm min.

■ Applications

Ideal for use on high frequency pulse circuits such as snubber circuits for switching power supplies, DC-DC converters, ballasts (inverter fluorescent lamps), etc.

Part Number	Rated Voltage (V)	TC Code (Standard)	Capacitance (pF)	Length L (mm)	Width W (mm)	Thickness T (mm)	Electrode g min. (mm)	Electrode e (mm)
GRM21A7U2E101JW31D	DC 250	U2J (EIA)	100±5%	2.0	1.25	1.0	0.7	0.3 min.
GRM21A7U2E151JW31D	DC 250	U2J (EIA)	150±5%	2.0	1.25	1.0	0.7	0.3 min.
GRM21A7U2E221JW31D	DC 250	U2J (EIA)	220±5%	2.0	1.25	1.0	0.7	0.3 min.
GRM21A7U2E331JW31D	DC 250	U2J (EIA)	330±5%	2.0	1.25	1.0	0.7	0.3 min.
GRM21A7U2E471JW31D	DC 250	U2J (EIA)	470±5%	2.0	1.25	1.0	0.7	0.3 min.
GRM21A7U2E681JW31D	DC 250	U2J (EIA)	680±5%	2.0	1.25	1.0	0.7	0.3 min.
GRM21A7U2E102JW31D	DC 250	U2J (EIA)	1000±5%	2.0	1.25	1.0	0.7	0.3 min.
GRM21A7U2E152JW31D	DC 250	U2J (EIA)	1500±5%	2.0	1.25	1.0	0.7	0.3 min.
GRM21A7U2E222JW31D	DC 250	U2J (EIA)	2200±5%	2.0	1.25	1.0	0.7	0.3 min.
GRM31A7U2E332JW31D	DC 250	U2J (EIA)	3300±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2E472JW31D	DC 250	U2J (EIA)	4700±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31B7U2E682JW31L	DC 250	U2J (EIA)	6800±5%	3.2	1.6	1.25	1.5	0.3 min.
GRM31B7U2E103JW31L	DC 250	U2J (EIA)	10000±5%	3.2	1.6	1.25	1.5	0.3 min.
GRM31A7U2J100JW31D	DC 630	U2J (EIA)	10±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J150JW31D	DC 630	U2J (EIA)	15±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J220JW31D	DC 630	U2J (EIA)	22±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J330JW31D	DC 630	U2J (EIA)	33±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J470JW31D	DC 630	U2J (EIA)	47±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J680JW31D	DC 630	U2J (EIA)	68±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J101JW31D	DC 630	U2J (EIA)	100±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J151JW31D	DC 630	U2J (EIA)	150±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J221JW31D	DC 630	U2J (EIA)	220±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J331JW31D	DC 630	U2J (EIA)	330±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J471JW31D	DC 630	U2J (EIA)	470±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J681JW31D	DC 630	U2J (EIA)	680±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U2J102JW31D	DC 630	U2J (EIA)	1000±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM32A7U2J152JW31D	DC 630	U2J (EIA)	1500±5%	3.2	2.5	1.0	1.5	0.3 min.
GRM32A7U2J222JW31D	DC 630	U2J (EIA)	2200±5%	3.2	2.5	1.0	1.5	0.3 min.
GRM31A7U3A100JW31D	DC1000	U2J (EIA)	10±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U3A150JW31D	DC1000	U2J (EIA)	15±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U3A220JW31D	DC1000	U2J (EIA)	22±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U3A330JW31D	DC1000	U2J (EIA)	33±5%	3.2	1.6	1.0	1.5	0.3 min.

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Part Number	Rated Voltage (V)	TC Code (Standard)	Capacitance (pF)	Length L (mm)	Width W (mm)	Thickness T (mm)	Electrode g min. (mm)	Electrode e (mm)
GRM31A7U3A470JW31D	DC1000	U2J (EIA)	47 ±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U3A680JW31D	DC1000	U2J (EIA)	68 ±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U3A101JW31D	DC1000	U2J (EIA)	100 ±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U3A151JW31D	DC1000	U2J (EIA)	150 ±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U3A221JW31D	DC1000	U2J (EIA)	220 ±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31A7U3A331JW31D	DC1000	U2J (EIA)	330 ±5%	3.2	1.6	1.0	1.5	0.3 min.
GRM31B7U3A471JW31L	DC1000	U2J (EIA)	470 ±5%	3.2	1.6	1.25	1.5	0.3 min.
GRM31A7U3D100JW31D	DC2000	U2J (EIA)	10 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM31A7U3D120JW31D	DC2000	U2J (EIA)	12 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM31A7U3D150JW31D	DC2000	U2J (EIA)	15 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM31A7U3D180JW31D	DC2000	U2J (EIA)	18 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM31A7U3D220JW31D	DC2000	U2J (EIA)	22 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM31A7U3D270JW31D	DC2000	U2J (EIA)	27 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM31A7U3D330JW31D	DC2000	U2J (EIA)	33 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM31A7U3D390JW31D	DC2000	U2J (EIA)	39 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM31A7U3D470JW31D	DC2000	U2J (EIA)	47 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM31A7U3D560JW31D	DC2000	U2J (EIA)	56 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM31A7U3D680JW31D	DC2000	U2J (EIA)	68 ±5%	3.2	1.6	1.0	1.8	0.3 min.
GRM32A7U3D820JW31D	DC2000	U2J (EIA)	82 ±5%	3.2	2.5	1.0	1.8	0.3 min.
GRM32A7U3D101JW31D	DC2000	U2J (EIA)	100 ±5%	3.2	2.5	1.0	1.8	0.3 min.
GRM32A7U3D121JW31D	DC2000	U2J (EIA)	120 ±5%	3.2	2.5	1.0	1.8	0.3 min.
GRM32A7U3D151JW31D	DC2000	U2J (EIA)	150 ±5%	3.2	2.5	1.0	1.8	0.3 min.
GRM32B7U3D181JW31L	DC2000	U2J (EIA)	180 ±5%	3.2	2.5	1.25	1.8	0.3 min.
GRM32B7U3D221JW31L	DC2000	U2J (EIA)	220 ±5%	3.2	2.5	1.25	1.8	0.3 min.
GRM42A7U3F270JW31L	DC3150	U2J (EIA)	27 ±5%	4.5	2.0	1.0	2.9	0.3 min.
GRM42A7U3F330JW31L	DC3150	U2J (EIA)	33 ±5%	4.5	2.0	1.0	2.9	0.3 min.
GRM42A7U3F390JW31L	DC3150	U2J (EIA)	39 ±5%	4.5	2.0	1.0	2.9	0.3 min.
GRM42A7U3F470JW31L	DC3150	U2J (EIA)	47 ±5%	4.5	2.0	1.0	2.9	0.3 min.
GRM42A7U3F560JW31L	DC3150	U2J (EIA)	56 ±5%	4.5	2.0	1.0	2.9	0.3 min.
GRM42A7U3F680JW31L	DC3150	U2J (EIA)	68 ±5%	4.5	2.0	1.0	2.9	0.3 min.
GRM42A7U3F820JW31L	DC3150	U2J (EIA)	82 ±5%	4.5	2.0	1.0	2.9	0.3 min.
GRM42A7U3F101JW31L	DC3150	U2J (EIA)	100 ±5%	4.5	2.0	1.0	2.9	0.3 min.