

## Data Sheet

# Monolithic Ceramic Capacitors

## GRM188R61H223KA01□ (0603, X5R, 22000pF, 50Vdc)

□: packaging code

RoHS regulation conformity parts



(in mm)

### ■ Dimensions

Length L	1.6mm±0.1mm
Width W	0.8mm±0.1mm
Thickness T	0.8mm±0.1mm
Electrode e	0.2 to 0.5mm
Electrode Gap g (min.)	0.5mm

### ■ Packaging

Code	Packaging	Minimum Quantity
D	180mm Paper Tape	4000
J	330mm Paper Tape	10000
C	Bulk Case	15000
B	Bulk(Bag)	1000

### ■ Rated Value

	Murata PN Code	Spec
Temperature Char.	R6	X5R (EIA), ±15%
Capacitance	223	22000pF
Capacitance Tol.	K	±10%
Rated Voltage	1H	50Vdc

### ■ Specifications

Please refer to 'GRM Series Specifications and Test Methods (1)' PDF file.

- This data sheet is applied for CHIP MONOLITHIC CERAMIC CAPACITOR used for General Electronics equipment for your design.

#### <Notice>

- Solderability of Tin plating termination chip might be deteriorated when low temperature soldering profile where peak solder temperature is below the Tin melting point is used. Please confirm the solderability of Tin plating termination chip before use.
- Use of Sn-Zn based solder will deteriorate reliability of MLCC. Please check with our sales representatives for the use of Sn-Zn based solder in advance.

- The RoHS compliance means that we judge from EU Directive 2002/95/EC the products do not contain lead, cadmium, mercury, hexavalent chromium, PBB and PBDE, except exemptions stated in EU Directive 2002/95/EC annex and impurities existing in natural world.
- This statement does not insure the compliance of any of the listed parts with any laws or legal imperatives developed by any EU members individually with regards to the RoHS Directive.

#### ⚠ Note:

1. This datasheet is downloaded from the website of Murata Manufacturing co., Ltd. Therefore, it's specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.
2. This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.