Spec Sheet

Multilayer Ceramic Capacitors (High dielectric type) UMK316B7105KL-T



Features

- Item Summary
- 1uF±10%, 50V,
- X7R, 1206/3216 (EIA/JIS)
- Lifecycle Stage
- Non-preferred
- Standard packaging quantity (minimum)
 - Taping Embossed 2000pcs

Products characteristics table

Capacitance	1 uF ± 10 %
Case Size (EIA/JIS)	1206/3216
Rated Voltage	50 V
tanδ (max)	3.5 %
Temperature Characteristic (EIA)	X7R
Operating Temp. Range (EIA)	-55 to +125 ℃
High Temperature Loading (% Rated Voltage)	200 %
Insulation Resistance (min)	100 ΜΩ·μF
RoHS Compliance (10 subst.)	Yes
REACH Compliance (205 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

External Dimensions

Dimension L	3.2 ± 0.15 mm
Dimension W	1.6 ±0.15 mm
Dimension T	1.6 ±0.20 mm
Dimension e	0.50 +0.35/-0.25 mm

The data is reference only. Electrical characteristics vary depending on environment or measurement condition. TAIYO YUDEN reserves the right to make change to the data at any time without notice. Before making final selection, please check product specification.

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Multi Layer Ceramic Capacitor TAIYO YUE -Electrical Characteristics Data-

OUMK316B7105KL

-30

-55 -35 -15

5

Temperature[degreeC]

25 45 65 85 105 125

RoHS compliance product

UMK316B7105KL 50V 3216 X7R 1uF +/- 10% t=1.8mmMAX Capacitance Freq 1000 50V 1206 X7R 1uF +/- 10% t=0.071inchMAX 100 Capacitance[uF] 10 1 0.1 0.001 0.01 0.1 10 1 Frequency[MHz] UMK316B7105KL DC Bias Char. 1000 20 10 100 0 -10 Z,ESR[OHM] 1.0 2,011 -20 dC/C[%] -30 -40 -50 -60 0.01 -70 0.001 -80 0.001 0.01 0 10 20 30 40 50 0.1 1 10 DC Bias Voltage[V] Frequency[MHz] UMK316B7105KL UMK316B7105KL Capacitance Temp. Ripple Current 10 100 0 dTemp.[degreeC] dC/C[%] 10 -20

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1

0

0.5

1 1.5 2 2.5 3 3.5 4

Ripple Current[Arms]

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100 100010000 UMK316B7105KL Impedance,ESR Freq. ESR Z 100 1000 10000

> 10kHz 100kHz

1MHz

16U1A03

Please read this notice before using the TAIYO YUDEN products.

REMINDERS

- Please conduct validation and verification of our products in actual condition of mounting and operating environment before using our products.
- The product listed in this spec sheet is intended for use in general electronic equipment (e.g., AV equipment, OA equipment, home electric appliances, office equipment, information and communication equipment including, without limitation, mobile phone, and PC) and medical equipment classified as Class I or II by IMDRF. Please be sure to contact TAIYO YUDEN for further information before using the products for any equipment which may directly cause loss of human life or bodily injury (e.g., transportation equipment including, without limitation, automotive powertrain control system, train control system, and ship control system, traffic signal equipment, disaster prevention equipment, medical equipment classified as Class III by IMDRF, highly public information network equipment including, without limitation, telephone exchange, and base station).

Please do not incorporate our products into any equipment requiring high levels of safety and/or reliability (e.g., aerospace equipment, aviation equipment*, medical equipment classified as Class IV by IMDRF, nuclear control equipment, undersea equipment, military equipment).

*Note: There is a possibility that our products can be used only for aviation equipment that does not directly affect the safe operation of aircraft (e.g., in-flight entertainment, cabin light, electric seat, cooking equipment) if such use meets requirements specified separately by TAIYO YUDEN. Please be sure to contact TAIYO YUDEN for further information before using our products for such aviation equipment.

When our products are used even for high safety and/or reliability-required devices or circuits of general electronic equipment, it is strongly recommended to perform a thorough safety evaluation prior to use of our products and to install a protection circuit as necessary.

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