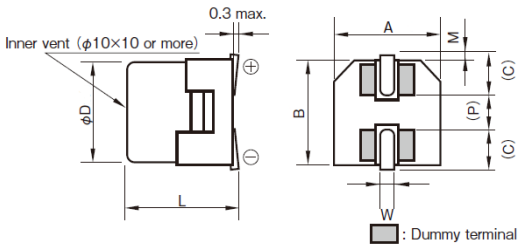
# Spec Sheet

Conductive Polymer Hybrid Aluminum Electrolytic Capacitors[HT1] for Automotive (AEC-Q200 Qualified)

# RAHT1221M1TEH0002E (Previous PN: HT-25V221MG10EQ-R2)




( ) : Reference size

## Features

- Item Summary

  220uF±20%, 25V, φ8x10mm, SMD
- Lifecycle Stage

  Mass Production (Preferred)
- AEC-Q200 qualified
- Standard packaging quantity (minimum)

  Embossed taping 500 pcs

## Products characteristics table

| | |
|---|---|
| Operating Temp. Range | -55 to +105 ℃ |
| Rated Voltage | 25 V |
| Rated Capacitance | 220 uF |
| Tolerance at rated capacitance | ± 20 % |
| Leakage current (max) | 55 uA at 2 min |
| Tangent of loss angle (tan δ ) (max) | 0.14 |
| ESR (max) | 27 mΩ at 100kHz / 20 ℃ |
| Rated Ripple (max) | 2300 mArms at 100kHz / 105 ℃ |
| Impedance ratio___[-25℃/+20℃] | 1.5 |
| Impedance ratio___[-55℃/+20℃] | 2 |
| Endurance (Applied ripple current) ___[Test time] | 10000 hours at 105 ℃ |
| Endurance___[Leakage current] | The initial specified value or less |
| Endurance___[Capacitance change] | Within ±30% of initial value |
| Endurance___[tan δ change] | 200% or less of the initial specified value |
| Endurance___[ESR change] | 200% or less of the initial specified value |
| Shelf life___Test time | 1000 hours at 105℃ ; Other items are same as the endurance. How ever, the performance shall be after voltage app lication treatment (JIS C5101-4). |
| RoHS Compliance (10 subst.) | Yes |
| REACH Compliance (253 subst.) | Yes |
| Soldering | Reflow |

## External Dimensions

| | |
|---|---|
| Dimension φD | φ8 ±0.5 mm |
| Dimension L | 10 ±0.5 mm |
| Dimension A | 8.4 ±0.2 mm |
| Dimension B | 8.4 ±0.2 mm |
| Dimension (C) | 3 mm |
| Dimension (P) | 3.1 mm |
| Dimension W | 0.7 to 1.1 mm |
| Dimension M | 0.4 ±0.3 mm |

2026.08.03

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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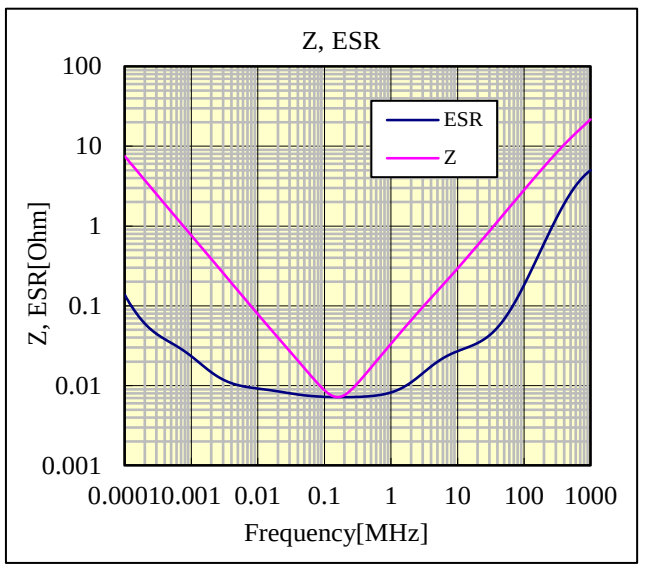
# Aluminum Electrolytic Capacitor -Electrical Characteristics Data- 201214

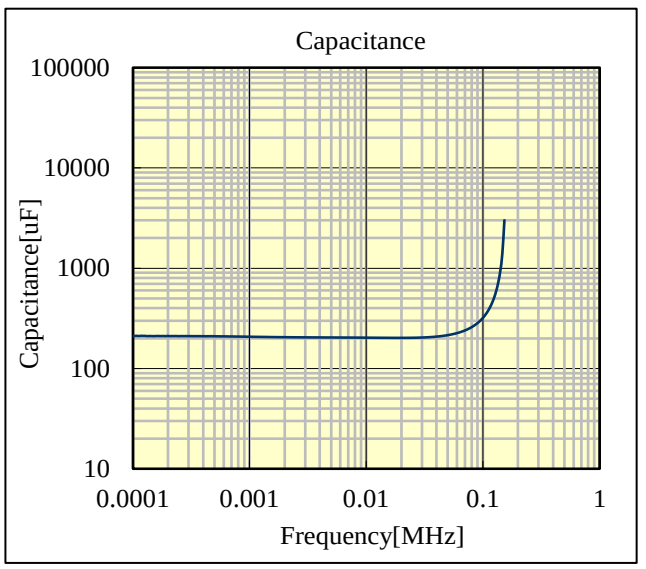
*RoHS compliance product*

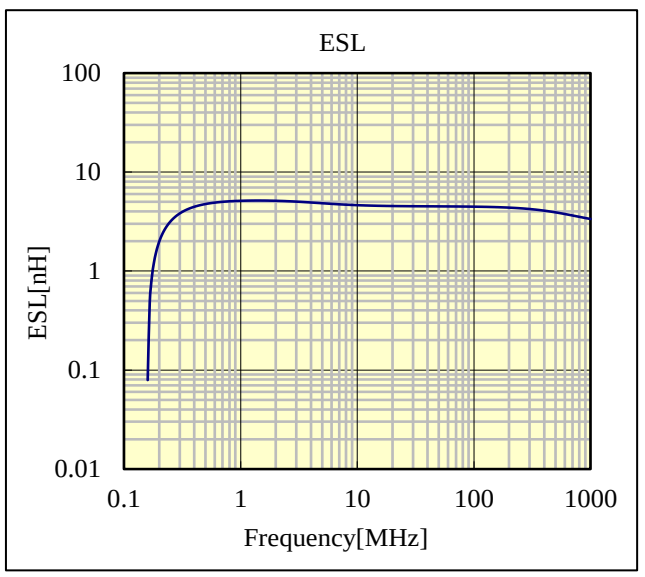
## ○*RAHT1221M1TEH0002E*

***220uF+/-20% 25V φ8 x 10mm SMD***
***220uF+/-20% 25V φ0.315 x 0.394inch SMD***






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## ⚠ REMINDERS

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Product information in this catalog is as of January 2026. All of the contents specified herein and production status of the products listed in this catalog are subject to change without notice due to technical improvement of our products, etc. Therefore, please check for the latest information carefully before practical application or use of our products.

Please note that TAIYO YUDEN shall not be in any way responsible for any damages and defects in products or equipment incorporating our products, which are caused under the conditions other than those specified in this catalog or individual product specification sheets.

**■ Approval of Product Specifications**

Please contact TAIYO YUDEN for further details of product specifications as the individual product specification sheets are available. When using our products, please be sure to approve our product specifications or make a written agreement on the product specification with TAIYO YUDEN in advance.

**■ Pre-Evaluation in the Actual Equipment and Conditions**

Please conduct validation and verification of our products in actual conditions of mounting and operating environment before using our products.

**■ Limited Application**

**1. Equipment Intended for Use**

The products listed in this catalog are intended for general-purpose and standard use in the equipment specified in this catalog or the individual product specification sheets, or the equipment approved separately by TAIYO YUDEN. TAIYO YUDEN has the product series intended for use in each equipment. Therefore, when using our products for each equipment, please check available applications specified in this catalog or the individual product specification sheets and use the corresponding products. Please be sure to contact TAIYO YUDEN before using our products for equipment other than those specified in this catalog or the individual product specification sheets.

**2. Equipment Requiring Inquiry**

Please be sure to contact TAIYO YUDEN for further information before using the products listed in this catalog for the following equipment (excluding intended equipment as specified in this catalog or the individual product specification sheets) which may cause loss of human life, bodily injury, serious property damage and/or serious public impact due to a failure or defect of the products and/or malfunction attributed thereto.

(1) Aviation equipment
(2) Aerospace equipment (artificial satellite, rocket, etc.)
(3) Undersea equipment (submarine repeating equipment, etc.)
(4) Power generation control equipment (nuclear power, hydroelectric power, thermal power plant control system, etc.)
(5) Transportation equipment (train control system, and ship control system, etc.)
(6) Traffic signal equipment
(7) Disaster prevention equipment, crime prevention equipment
(8) Combustion control equipment, explosion control equipment
(9) Military equipment (excluding lethal weapons, weapons of mass destruction and conventional weapons)
(10) Any other equipment requiring high levels of quality and/or reliability equal to the equipment listed above

**3. Equipment Prohibited for Use**

Please do not incorporate our products into (i) the following equipment requiring extremely high levels of safety and/or reliability, and/or (ii) the following equipment that may hinder the maintenance of international peace and security.

(1) Medical devices classified as GHTF Class D (Japan Class IV), implantable medical devices *
(2) lethal weapons, weapons of mass destruction, conventional weapons
(3) Any other equipment requiring extremely high levels of safety and/or reliability equal to the equipment listed in (1) above

*Notes: Implantable medical devices contain not only internal unit which is implanted in a body, but also external unit which is connected to the internal unit.

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**■ Safety Design**

When using our products for high safety and/or reliability-required equipment or circuits, please fully perform safety and/or reliability evaluation. In addition, please install (i) systems equipped with a protection circuit and a protection device and/or (ii) systems equipped with a redundant circuit or other system to prevent an unsafe status in the event of a single fault for a failsafe design to ensure safety.

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