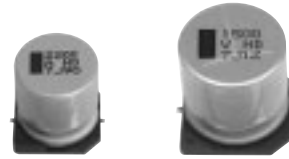


Surface Mount Type

Series: **Medium-size HD** Type: **V**
 HD High temperature Lead-Free reflow(suffix:A*)



■ Features

- Endurance: 5000 h at 105 °C
- Vibration-proof product is available upon request.
- RoHS directive compliant

■ Specifications

| | | |
|------------------------------|--|------------------------------------|
| Category Temp. Range | -55 °C to +105 °C | |
| Rated W.V.Range | 6.3 V.DC to 35 V.DC | |
| Nominal Cap.Range | 680 μF to 7500 μF | |
| Capacitance Tolerance | ±20 % (120 Hz/+20 °C) | |
| DC Leakage Current | I ≤ 0.01 CV (μA) After 2 minutes | |
| tan δ | Please see the attached High temperature lead-free reflow products list. | |
| Endurance | After applying rated working voltage for 5000 hours at +105 °C±2 °C and then being stabilized at +20 °C, Capacitors shall meet the following limits. | |
| | Capacitance change | ±30 % of initial measured value |
| | tan δ | ≤ 200 % of initial specified value |
| | DC leakage current | ≤ initial specified value |
| Shelf Life | After storage for 1000 hours at +105 °C±2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance (With voltage treatment) | |
| Resistance to Soldering Heat | After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits. | |
| | Capacitance change | ±10 % of initial measured value |
| | tan δ | ≤ initial specified value |
| | DC leakage current | ≤ initial specified value |

■ Marking

Example: 6.3 V 3300 μF Marking color : BLACK

Capacitance (μF)
 Series identification
 Mark for Lead-Free Products Black Dot (Square)
 Rated Voltage Mark
 Negative polarity marking (-)
 Lot number

| | |
|---|-------|
| j | 6.3 V |
| A | 10 V |
| C | 16 V |
| E | 25 V |
| V | 35 V |

■ Dimensions in mm (not to scale)

() reference size

| Size code | D | L | A, B | H max. | I | W | P | K |
|-----------|------|------|------|--------|-----|----------|-----|----------|
| H13 | 12.5 | 13.5 | 13.5 | 15.0 | 4.7 | 0.90±0.3 | 4.4 | 0.70±0.3 |
| J16 | 16.0 | 16.5 | 17.0 | 19.0 | 5.5 | 1.20±0.3 | 6.7 | 0.70±0.3 |
| K16 | 18.0 | 16.5 | 19.0 | 21.0 | 6.7 | 1.20±0.3 | 6.7 | 0.70±0.3 |

(mm)

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ High temperature Lead-Free reflow

Endurance : 105 °C 5000 h

| W.V. (V) | Cap. (±20 %) (µF) | Case size | | | Specification | | Part No. (RoHS:compliant) | Reflow | Min. Packaging Q'ty |
|-------------|-------------------------|--------------|----------------|--------------|---|-------------------------------|------------------------------|--------|------------------------|
| | | Dia. (mm) | Length (mm) | Size Code | Ripple Current (120 Hz) (+105 °C) (mA r.m.s.) | tan δ (120 Hz) (+20 °C) | | | Taping (pcs) |
| 6.3 | 3300 | 12.5 | 13.5 | H13 | 680 | 0.32 | EEEHD0J332AQ | (9) | 200 |
| | 6800 | 16 | 16.5 | J16 | 1280 | 0.38 | EEEHD0J682AM | (9) | 125 |
| | 7500 | 18 | 16.5 | K16 | 1540 | 0.40 | EEEHD0J752AM | (9) | 125 |
| 10 | 2200 | 12.5 | 13.5 | H13 | 620 | 0.24 | EEEHD1A222AQ | (9) | 200 |
| | 4700 | 16 | 16.5 | J16 | 1280 | 0.28 | EEEHD1A472AM | (9) | 125 |
| | 6800 | 18 | 16.5 | K16 | 1540 | 0.32 | EEEHD1A682AM | (9) | 125 |
| 16 | 1500 | 12.5 | 13.5 | H13 | 620 | 0.18 | EEEHD1C152AQ | (9) | 200 |
| | 3300 | 16 | 16.5 | J16 | 1280 | 0.22 | EEEHD1C332AM | (9) | 125 |
| | 4700 | 18 | 16.5 | K16 | 1540 | 0.24 | EEEHD1C472AM | (9) | 125 |
| 25 | 1000 | 12.5 | 13.5 | H13 | 580 | 0.16 | EEEHD1E102AQ | (9) | 200 |
| | 2200 | 16 | 16.5 | J16 | 1200 | 0.18 | EEEHD1E222AM | (9) | 125 |
| | 3300 | 18 | 16.5 | K16 | 1540 | 0.20 | EEEHD1E332AM | (9) | 125 |
| 35 | 680 | 12.5 | 13.5 | H13 | 580 | 0.14 | EEEHD1V681AQ | (9) | 200 |
| | 1500 | 16 | 16.5 | J16 | 1200 | 0.16 | EEEHD1V152AM | (9) | 125 |
| | 1800 | 18 | 16.5 | K16 | 1450 | 0.16 | EEEHD1V182AM | (9) | 125 |

The taping dimensions are explained on p.177 of our Catalog. Please use it as a reference guide.
Reflow Profile(Fig-1 to Fig-11) listed on p.175 of our Catalog.