

EDCON-COMPONENTS



Specifications

Radial Solid Tantalum Electrolytic Capacitor THT Type
 Rated Voltage from 6,3 ~ 50Volt
 Capacitance Range from 0,1 μ F ~ 470 μ F
 Tolerance 10% or 20%
 Highly reliable resin dipped type
 Excellent frequency and temperature characteristics
 Non flammable epoxy resin

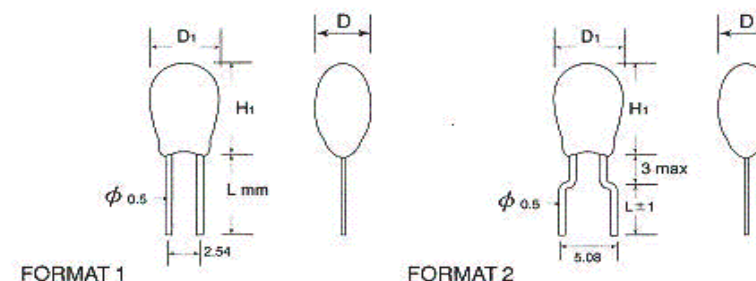
Technical

Performance Characteristics

Operating Temperature Range . -55 to +125°C (-55 to +85° for 4 & 6,3 V)
 Rated Working Voltage Range 6,3 ~ 50 VDC
 Nominal Capacitance Range 0,1 ~ 33 μ F
 Capacitance Tolerance .+/-20% (+/-10% is available) (120Hz +/-20%)
 Leakage Current Not more than 0,008CV (μ A) or 0,5 μ A whichever is greater

| Characteristics at high and low Temperature | Cap. μ F | Capacit. Change (%) | | | DF max. % | | | | DCL max. (μ F) | | |
|---|--------------|---------------------|-------------|--------------|-----------|--------|--------|---------|---------------------|---------|---------|
| | | -.50% °C | +.85% °C | +.125% °C | -.50°C | +.20°C | +.85°C | +.125°C | +.20°C | +.85°C | +.125°C |
| | ≤ 1.0 | .+-10 | .+-15 | .+-25 | 6 | 4 | 6 | 6 | 10 lo | 12,5 lo | 10 lo |
| | 1,5~68 | | | | 8 | 6 | 8 | 8 | | | |
| | 100~330 | | | | 10 | 8 | 10 | 10 | | | |

Technical Drawing



Dimensions (mm)

| Case Size | A | B | C | D | E | F |
|---------------------|-----|-----|-----|-----|------|------|
| Formats 1/2/H1 max. | 7 | 8 | 9,5 | 11 | 13,5 | 16,5 |
| D1 max. | 4,5 | 5,0 | 5,5 | 6,5 | 8,5 | 9,5 |
| D max. | 4,2 | 4,7 | 5,5 | 6,5 | 8,5 | 9,5 |

| | | |
|-----------------|----------|------------|
| Wire length (L) | 5,7 +/-1 | 16,18 +/-1 |
| Code | A | B |

Standard Radial Tantalum Capacitor 50V

Part No.: I16001

Customer:

| | | | | | | | | | |
|-------|--------|------|--------|--------|--------|-----------|-----------|------|------------|
| DRW: | Jason | CHKD | Wilson | MATL: | Wilson | TOLERANCE | Mason | DATE | 20.05.2010 |
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Moisture Resistance

Test conditions

| | |
|--------------------------------|---|
| Relative humidity | : 90 to 95% without load |
| Ambient Temperature: | : + 40°C |
| Duration: | : 500hours |
| Post test requirements at 20°C | |
| Leakager current | : $\leq 0,012CV$ or $0,75(\mu F)$ wichever is greater |
| Capacitance Change | : +/-10% of initial measured value |
| tan | : $\leq 150\%$ of initial spevified value |

Shelf Life

| | | |
|---------------------|-------------|---------------------------------|
| Test conditions | | Post test requirements at +20°C |
| Duration | :2000 hours | Same limits for "Endurance" |
| Ambient temperature | : +85°C | |
| Applied Voltage | : none | |

Tinned radial leads Ø 0,5min.

Temperature: 260°C

| | |
|---|--|
| Time of immersions: 3s | Time of immersions: 3S |
| Standard lead spacing :2,54/5,08 +/-0,5mm | The tin should cover 95% of wire surface |
| Solderability | Permissible pull test: 10N |
| Recommended soldering bath | |

Endurance

Test conditions

| | | |
|---------------------|------------------------------|-----------------------|
| Conditions Item | Derating (for 10 to 50V only | Rating |
| Duration | 1000hours | 2000 hours |
| Ambient Temperature | .+105°C | .+ 85°C |
| Applied voltage | Derated working voltage | Rated working voltage |
| Source impedance | 1 Ω/V | 1 Ω/V |

Derating Voltage +125°C for 10~50V working

| | | | | | | | | |
|---------------------|-----|-----|------|------|------|------|------|------|
| Rated Voltage | 4,0 | 6,3 | 10,0 | 16 | 20 | 25 | 35,0 | 50,0 |
| Voltage Derating | 2,5 | 4,0 | 6,3 | 10,0 | 13,0 | 16,0 | 23,0 | 33,0 |
| Surge Voltage +85°C | 5,0 | 8,0 | 13,0 | 20,0 | 26,0 | 32,0 | 36,0 | 65,0 |
| Surge Voltage +0°C | 3,4 | 5,0 | 9,0 | 12,0 | 16,0 | 20,0 | 26,0 | 38,0 |

Post test requirements at +20°C

| | |
|--------------------|---|
| Leakage current | $\leq 0,01\% CV$ or $0,0625 (\mu A)$, whichever is greater |
| Capacitance change | .+10% of initial measured value |
| tan | \leq initial specified value |

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| | | | | | | | | | | |
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| APPD: | Schumi | | | FINISH | Jamy | | Sheet No. | 2 from 5 | | |

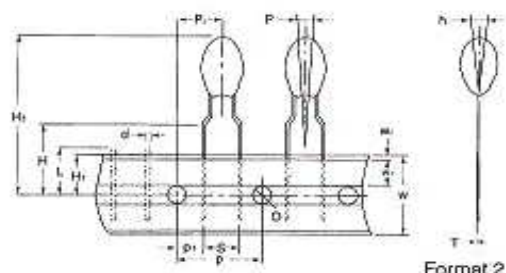
www.edcon-components.com

email: info@edcon-components.com

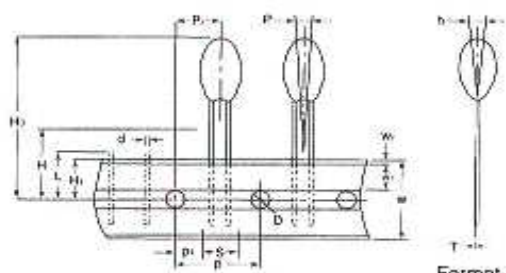
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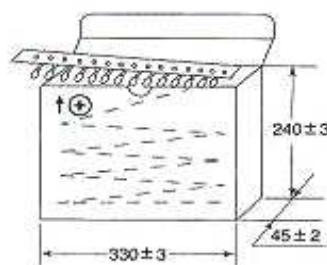
Packing Specification Tape & Ammo Packing (conform to IEC288-2)



Format 2



Format 1



(mm)

| Item | Code | Dimension (mm) |
|---------------------------------|------------|--|
| Carrier tape width | W | 18,0 |
| Hold down tape width | W | 6,0 +/-0,5 |
| Hold down tape position | W | 1,0max. |
| Feed hold diameter | D | 4,0 +/-0,2 |
| Feed hole pitch | P | 12,7 +/-0,3 |
| Hold center to lead | P | Format 1: 5,05 +/-0.7 Format 2: 3,85 +/-0.7 |
| Hole center to component center | P | 6,35 +/-1.0 |
| Lead wire clench height | H | 16,0 +/-0,5 |
| Hole position | H1 | 9,0 +/-0,5 |
| Base of component height | H | 0,8 min. |
| Component height | H | 32,2max. |
| Components alignment | ΔP | 0 +/-1.3 |
| | Δh | 0 +/-2.0 |
| Lead spacing | S | `S` wires 2.5 `B` wires 5.0 |
| Lead diameter | d | 0,5 +/-0,05 |
| length of snipping lead | L | 11,0 max. |
| Carrier tape thickness | T | 0,5 +/-0,1 |

| Quantity of Tape Ammo Packing type | | | |
|------------------------------------|------|------|------|
| Case Code | A~B | C~D | E~F |
| QTY (PCS/box) | 2500 | 2000 | 1000 |

| CASE Size FORMAT | Qty per bag (cut ≤7mm) | CASE Size FORMAT | Qty per bag (cut ≤18mm) |
|---------------------|---------------------------|---------------------|----------------------------|
| from A to B | 1000 | from A to B | 1000 |
| from C to D | 1000 | from C to D | 500 |
| from E to F | 500 | from E to F | 500 |

**Standard Radial Tantalum
Capacitor 50V**

Part No.: **I16001**

| | | | | | | | | | | |
|-------|--------|------|--------|--------|--------|-----------|-----------|----------|------------|-----------|
| DRW: | Jason | CHKD | Wilson | MATL: | Wilson | TOLERANCE | Mason | DATE | 20.05.2010 | Customer: |
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| Capacitance | DCL (µA) max. | DF % max. | ESR max. (Ω) @ 100KHz |
|-------------|---------------|-----------|--------------------------|
| 0,33µF | 0,5µA | 4% | 15,0Ω |

Ordering Informations

| Serie | Voltage Code | Tol. Code | Range Code | Case Code | Lead function | ROHS | Package | | | |
|---------------|--------------|-----------|------------|-----------|---------------|----------|-----------|--|--|--|
| I16001 | 500 | M | 334 | A | LL | R | BU | | | |

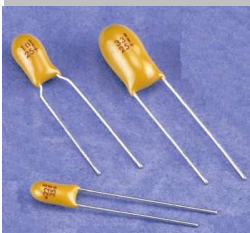
| | | | | | | |
|--------------------|--------------------|--------------------|---------------------|------------------------------------|----------------------------|------------------------|
| 500= 50Volt | M= Tol. 20% | 334= 0,33µF | A= Size Code | LL= Long Lead | R= ROHS Conform | BU= Bulk / Ware |
| | K= Tol. 10% | | | L6= Lead length 5,7 +/- 1mm | N= NON ROHS Conform | TR= Tape / Reel |

Standard Radial Tantalum Capacitor 50V

Part No.: **I16001**

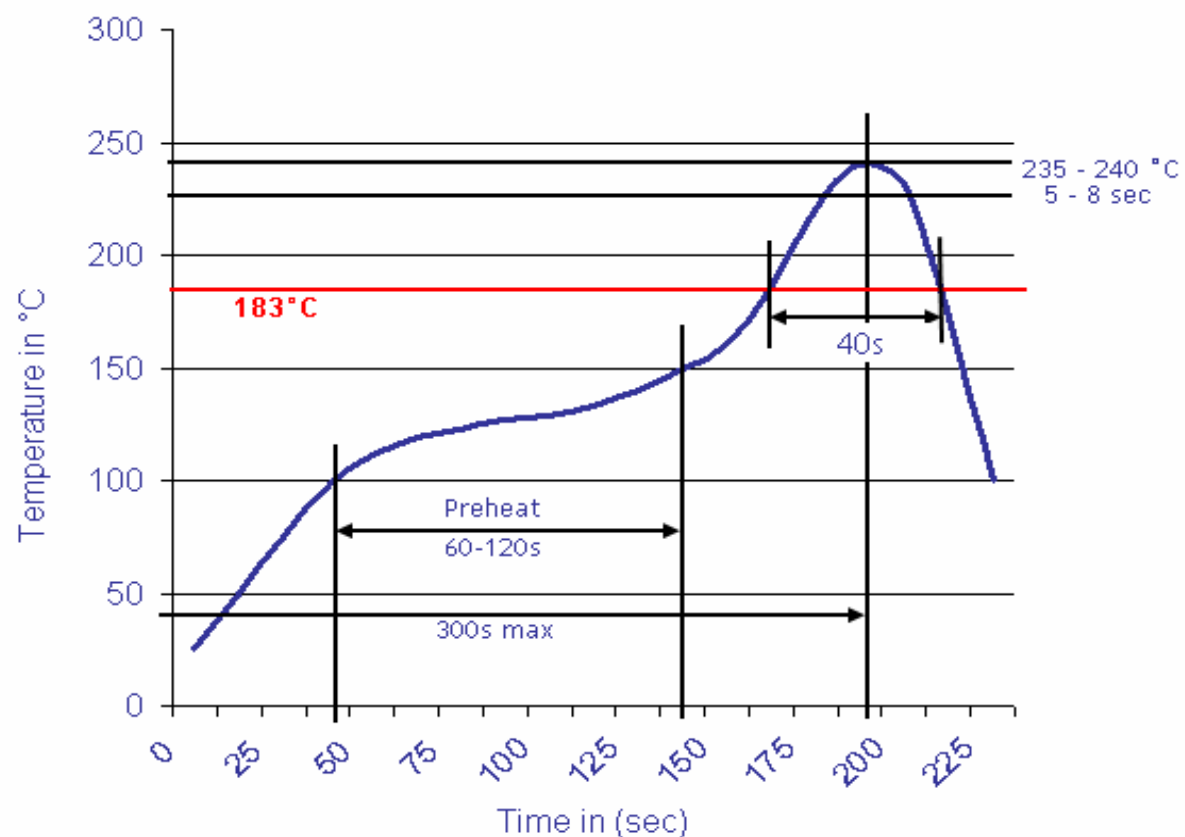
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Customer:



Soldering Profile Curve

Classification Reflow Profile (JEDEC J-STD-020C)


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| APPD: | Schumi | | | FINISH | Jamy | | Sheet No. | 5 from 5 | |