# Tantalum Product - **TPS** Low ESR Series

## PRODUCT SPECIFICATIONS :

| | | |
|---|---|---|
| Nominal Capacitance @ 120Hz | 220 µF | |
| Capacitance Tolerance (*) | M = ±20% | |
| Rated Voltage DC ($V_R$) | ≤ 85°C | 16 V |
| Category Voltage DC ($V_C$) | ≤ 125°C | 10 V |
| Surge Voltage ($V_S$) | ≤ 85°C<br>≤ 125°C | 20 V<br>13 V |
| Temperature Range | -55°C to +125°C | |
| Direct Leakage Current max. @ $V_R$ | 35.2 µA | |
| Dissipation Factor max. @ 120Hz | 10 % | |
| ESR max. @ 100kHz | 0.2 Ohm | |
| Typical weight ( case) | 290 mg | |



RoHS COMPLIANT

LEAD-FREE

LEAD-FREE COMPATIBLE COMPONENT

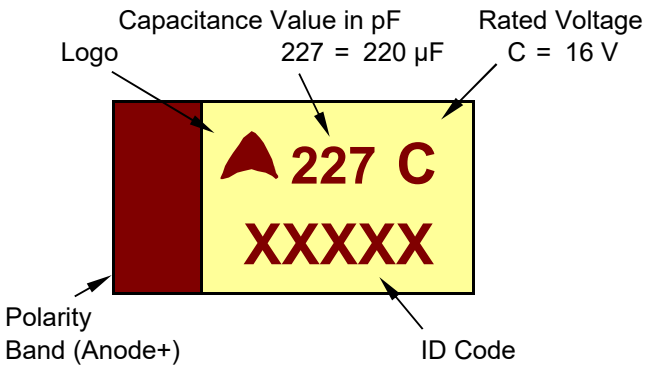
*Moisture sensitivity level: meets MSL 3*
*Reflow specification: meets J-STD-020 standard*
*100% surge current tested*
*All technical data relates to an ambient temperature of +25°C, Capacitance and DF are measured at 120Hz, 0.5RMS with DC bias of 2.2V. DCL is measured at rated voltage after 5 minutes*
*The EIA and CECC standards for low ESR solid Tantalum capacitors allow an ESR movement to 1.25 times catalogue limit post mounting*
*KYOCERA AVX reserves the rights to supply higher voltage rating in the same case size, to the same reliability standards*

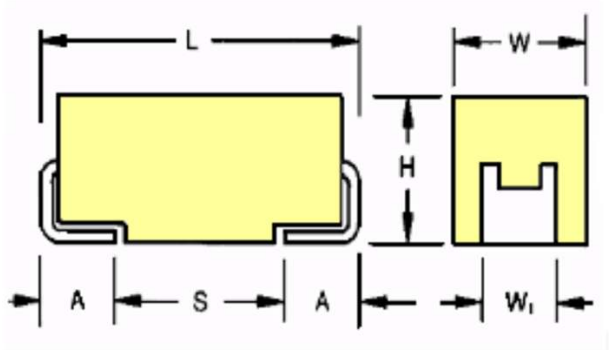
| RMS value of Ripple Current (mA) @100kHz | | | RMS value of Ripple Voltage (mV) @100kHz | | |
|---|---|---|---|---|---|
| 25°C | 85°C | 125°C | 25°C | 85°C | 125°C |
| 866 | 779 | 346 | 173 | 156 | 69 |

## HOW TO ORDER:

| TPS | D | 227 | M | 016 | # | 0200 | V |
|---|---|---|---|---|---|---|---|
| Type | Case code | Capacitance Value | Cap. Tolerance | Rated DC | Packaging | ESR in mOhms | Vacuum packing |

## DRAWING AND DIMENSIONS:



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## CASE DIMENSIONS: millimetres

| Case | | | | | | | |
|---|---|---|---|---|---|---|---|
| EIA | Size | L ±0.2 | W +0.2 –0.1 | H +0.2 –0.1 | A +0.3 –0.2 | S min. | W1 ±0.2 |
| 7343-31 | D | 7.3 | 4.3 | 2.9 | 1.3 | 4.4 | 2.4 |

## PACKAGING INFORMATION:

| Reel Size (#) | R = 7” Reel<br>Pure Tin Termination | S = 13” Reel<br>Pure Tin Termination | A = 7” Reel<br>Gold Plated Termination | B = 13” Reel<br>Gold Plated Termination |
|---|---|---|---|---|
| Quantity | 500 | 2500 | 500 | 2500 |
| Tape Width | 12 mm | 12 mm | 12 mm | 12 mm |

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