# TPS Series

## Low ESR

## FEATURES

- Low ESR series of robust $MnO_2$ solid electrolyte capacitors
- CV range: 0.15-1500µF / 2.5-50V
- 14 case sizes available
- Power supply applications

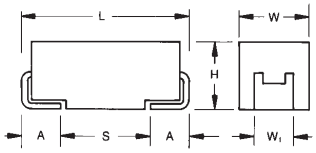
LEAD-FREE
LEAD-FREE COMPATIBLE COMPONENT

RoHS COMPLIANT

*SnPb termination option is not RoHS compliant.*

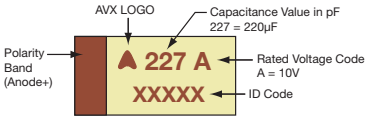
## APPLICATIONS

- General medium power DC/DC convertors

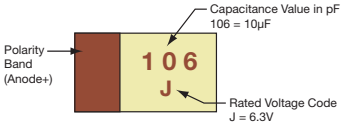



## MARKING

### A, B, C, D, E, F, S, T, V, W, X, Y CASE




### P, R CASE




## CASE DIMENSIONS: millimeters (inches)

| Code | EIA Code | EIA Metric | L±0.20 (0.008) | W+0.20 (0.008) -0.10 (0.004) | H+0.20 (0.008) -0.10 (0.004) | $W_1$±0.20 (0.008) | A+0.30 (0.012) -0.20 (0.008) | S Min. |
|---|---|---|---|---|---|---|---|---|
| A | 1206 | 3216-18 | 3.20 (0.126) | 1.60 (0.063) | 1.60 (0.063) | 1.20 (0.047) | 0.80 (0.031) | 1.10 (0.043) |
| B | 1210 | 3528-21 | 3.50 (0.138) | 2.80 (0.110) | 1.90 (0.075) | 2.20 (0.087) | 0.80 (0.031) | 1.40 (0.055) |
| C | 2312 | 6032-28 | 6.00 (0.236) | 3.20 (0.126) | 2.60 (0.102) | 2.20 (0.087) | 1.30 (0.051) | 2.90 (0.114) |
| D | 2917 | 7343-31 | 7.30 (0.287) | 4.30 (0.169) | 2.90 (0.114) | 2.40 (0.094) | 1.30 (0.051) | 4.40 (0.173) |
| E | 2917 | 7343-43 | 7.30 (0.287) | 4.30 (0.169) | 4.10 (0.162) | 2.40 (0.094) | 1.30 (0.051) | 4.40 (0.173) |
| F | 2312 | 6032-20 | 6.00 (0.236) | 3.20 (0.126) | 2.00 (0.079) max. | 2.20 (0.087) | 1.30 (0.051) | 2.90 (0.114) |
| P | 0805 | 2012-15 | 2.05 (0.081) | 1.35 (0.053) | 1.50 (0.059) max. | 1.00 ±0.10 (0.039 ±0.004) | 0.50 (0.020) | 0.85 (0.033) |
| R | 0805 | 2012-12 | 2.05 (0.081) | 1.30 (0.051) | 1.20 (0.047) max. | 1.00 ±0.10 (0.039 ±0.004) | 0.50 (0.020) | 0.85 (0.033) |
| S | 1206 | 3216-12 | 3.20 (0.126) | 1.60 (0.063) | 1.20 (0.047) max. | 1.20 (0.047) | 0.80 (0.031) | 1.10 (0.043) |
| T | 1210 | 3528-12 | 3.50 (0.138) | 2.80 (0.110) | 1.20 (0.047) max. | 2.20 (0.087) | 0.80 (0.031) | 1.40 (0.055) |
| V | 2924 | 7361-38 | 7.30 (0.287) | 6.10 (0.240) | 3.55 (0.140) | 3.10 (0.120) | 1.30 (0.051) | 4.40 (0.173) |
| W | 2312 | 6032-15 | 6.00 (0.236) | 3.20 (0.126) | 1.50 (0.059) max. | 2.20 (0.087) | 1.30 (0.051) | 2.90 (0.114) |
| X | 2917 | 7343-15 | 7.30 (0.287) | 4.30 (0.169) | 1.50 (0.059) max. | 2.40 (0.094) | 1.30 (0.051) | 4.40 (0.173) |
| Y | 2917 | 7343-20 | 7.30 (0.287) | 4.30 (0.169) | 2.00 (0.079) max. | 2.40 (0.094) | 1.30 (0.051) | 4.40 (0.173) |

W1 dimension applies to the termination width for A dimensional area only.

## HOW TO ORDER

| TPS | C | 107 | M | 010 | R | 0100 | — |
|---|---|---|---|---|---|---|---|
| **Type** | **Case Size** See table above | **Capacitance Code** pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow) | **Tolerance** K = ±10% M = ±20% | **Rated DC Voltage** 002 = 2.5Vdc 004 = 4Vdc 006 = 6.3Vdc 010 = 10Vdc 016 = 16Vdc 020 = 20Vdc 025 = 25Vdc 035 = 35Vdc 050 = 50Vdc | **Packaging** R = Pure Tin 7" Reel S = Pure Tin 13" Reel A = Gold Plating 7" Reel B = Gold Plating 13" Reel H = Tin Lead 7" Reel (Contact Manufacturer) K = Tin Lead 13" Reel (Contact Manufacturer) H, K = Non RoHS | **ESR in mΩ** | **Additional characters may be added for special requirements** V = Dry pack Option (selected codes only) |

## TECHNICAL SPECIFICATIONS

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Technical Data: | All technical data relate to an ambient temperature of +25°C | | | | | | | | | |
| Capacitance Range: | 0.15 µF to 1500 µF | | | | | | | | | |
| Capacitance Tolerance: | ±10%; ±20% | | | | | | | | | |
| Rated Voltage ($V_R$) | ≤ +85°C: | 2.5 | 4 | 6.3 | 10 | 16 | 20 | 25 | 35 | 50 |
| Category Voltage ($V_C$) | ≤ +125°C: | 1.7 | 2.7 | 4 | 7 | 10 | 13 | 17 | 23 | 33 |
| Surge Voltage ($V_S$) | ≤ +85°C: | 3.3 | 5.2 | 8 | 13 | 20 | 26 | 32 | 46 | 65 |
| Surge Voltage ($V_S$) | ≤ +125°C: | 2.2 | 3.4 | 5 | 8 | 13 | 16 | 20 | 28 | 40 |
| Temperature Range: | -55°C to +125°C | | | | | | | | | |
| Environmental Classification: | 55/125/56 (IEC 68-2) | | | | | | | | | |
| Reliability: | 1% per 1000 hours at 85°C, $V_R$ with 0.1Ω/V series impedance, 60% confidence level | | | | | | | | | |
| Termination Finished: | Sn Plating (standard), Gold and SnPb Plating upon request | | | | | | | | | |
| | For AEC-Q200 availability, please contact AVX | | | | | | | | | |

# TPS Series

## Low ESR

### CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

| Capacitance | | Rated Voltage DC ($V_R$) to 85°C | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| µF | Code | 2.5V (e) | 4V (G) | 6.3V (J) | 10V (A) | 16V (C) | 20V (D) | 25V (E) | 35V (V) | 50V (T) |
| 0.15 | 154 | | | | | | | | | A(9000) |
| 0.22 | 224 | | | | | | | | A(6000) | A(7000) |
| 0.33 | 334 | | | | | | | | A(6000) | A(7000) |
| 0.47 | 474 | | | | | | | A(7000) | A(6000)<br>B(4000) | A(6500), B(6000)<br>C(2300) |
| 0.68 | 684 | | | | | | | A(6000) | A(6000) | B(4000) |
| 1.0 | 105 | | | | R(9000) | A(6200) | A(3000), R(6000)<br>S(6000), T(2000) | A(4000)<br>R(2500,4000) | A(3000)<br>B(2000) | B(3000)<br>C(2500) |
| 1.5 | 155 | | | | | | A(3000) | A(3000)<br>B(1800) | A(3000)<br>B(2500) | C(1500,2000) |
| 2.2 | 225 | | | R(7000) | A(1800) | A(1800,3500)<br>T(2000) | A(3000), B(1700) | A(2500)<br>B(900,1200,2500) | A(1500), B(750,<br>1500,2000), C(1000) | C(1500)<br>D(1200) |
| 3.3 | 335 | | | A(2100) | T(1500) | A(3500), B(2500) | A(2500)<br>B(1300) | A(1000,1500)<br>B(750,1500,2000) | B(1000)<br>C(700) | C(1000)<br>D(800) |
| 4.7 | 475 | | | S(4000) | A(1400), B(1400)<br>R(3000,5000) | A(2000)<br>B(800,1500) | A(1800)<br>B(750,1000) | B(700,900,1500)<br>C(700) | B(700,1500)<br>C(600), D(700) | C(800)<br>D(250,300,<br>500,700) |
| 6.8 | 685 | | | A(1800) | A(1800), B(1300)<br>T(1800) | A(1500)<br>B(600,1200) | A(1000)<br>B(600,1000)<br>C(700) | B(700)<br>C(500,600,700) | C(350)<br>D(150,400,500) | D(200, 300,<br>500,600) |
| 10 | 106 | | R(3000) | A(1500), B(1500)<br>R(1000,1500,3000)<br>T(1000) | A(900,1800), B(1000)<br>P(2000)(M), S(900)<br>T(1000,2000) | A(1000), B(500,800)<br>C(500), T(800,1000)<br>W(500,600) | B(500,1000)<br>C(500,700)<br>W(250, 500) | B(1800)<br>C(300,500)<br>D(500) | C(600)<br>D(125,300)<br>E(200), Y(250) | D(500)<br>E(250,300,<br>400,500) |
| 15 | 156 | | | A(700,1500) | A(1000)<br>B(450,600), C(700)<br>T(1200) | B(500,800)<br>C(300,700) | B(500)<br>C(400,450) | C(220,300)<br>D(100,300) | C(350,450)<br>D(100,300)<br>Y(250) | E(250)<br>V(250) |
| 22 | 226 | | | A(500,900)<br>B(375,600)<br>C(500), S(900) | A(900)<br>B(400,500,700)<br>C(300), T(800) | B(400,600)<br>C(150,250,300,375)<br>D(700), W(500) | B(400,600)<br>C(100,150,400)<br>D(200,300) | C(275,400)<br>D(100,200,300) | D(125,200,300,400)<br>E(125,200,300)<br>Y(200) | |
| 33 | 336 | | | A(600)<br>B(250,350,450,600)<br>T(800) | A(700)<br>B(250,425,500,650)<br>C(150,375,500)<br>W(350) | B(350,500)<br>C(100,150,225,300)<br>D(200), W(140,175,<br>250,400,500)<br>Y(300,400) | C(300)<br>D(100,200) | D(100,200,300)<br>E(100,175,<br>200,300)<br>Y(200) | D(200,300)<br>E(100,250,300)<br>V(200) | |
| 47 | 476 | | A(500) | A(800)<br>B(250,350,500)<br>C(300), T(1200) | B(250,350,500,650)<br>C(200,350)<br>D(100,300)<br>W(125,150,250) | C(110,350)<br>D(80,100,150,200)<br>W(200)<br>X(180), Y(250) | D(75,100,200)<br>E(70,125,150,<br>200,250)<br>X(200) | D(125,150,250)<br>E(80,100,125)<br>(Y250) | E(200,250)<br>V(150,200) | |
| 68 | 686 | | | B(250,350,500)<br>C(150,200)<br>W(110,125,250) | B(600)<br>C(80,100,200,300)<br>D(100,150), W(100,150)<br>Y(100,200) | C(125,200)<br>D(70,100,150)<br>F(200), X(150)<br>Y(150,200,250) | D(70,150,<br>200,300)<br>E(125,150,200)<br>Y(200) | E(125,200)<br>V(80,95,150,200) | V(150,200) | |
| 100 | 107 | B(200) | B(200,250,<br>350,500)<br>W(100) | B(250,400)<br>C(75,150), D(300)<br>W(100,150)<br>Y(100) | B(400)(M)<br>C(75,100,150,200)<br>D(50,65,80,100,125,<br>150), E(125) W(150)<br>X(85,150,200)<br>Y(100,150,200) | C(200)<br>D(60,100,125,150)<br>E(55,100,125,150)<br>F(150,200)(M)<br>Y(100,150,200) | D(85,100,150)<br>E(100,150,200)<br>V(60,85,100,200) | E(150)(M), V(100) | | |
| 150 | 157 | B(150) | B(250)<br>C(70,80) | C(50,90,150,200,250)<br>D(50,125),<br>Y(40,50) | C(150), D(50,85,100),<br>E(100), F(200), X(100)(M)<br>Y(100,150,200) | D(60,85,100,125,150)<br>E(100), V(45,75)<br>Y(200)(M) | V(80) | V(150)(M) | | |
| 220 | 227 | B(150,<br>200,600)<br>D(45) | D(40,50,100)<br>Y(40,50,75) | C(70,100,125,250)<br>D(50,100,125)<br>E(100), F(200)<br>Y(100,150) | D(40,50,100,150)<br>E(50,60,70,100,<br>125,150)<br>Y(100,150,200) | E(100,150)<br>V(50,75,100,150) | | | | |
| 330 | 337 | Y(40) | C(100)<br>D(35,45,100)<br>F(200)<br>X(100) | C(80,100)<br>D(45,50,70,100)<br>E(50,100,125,150)<br>V(100), Y(75,100,150) | D(50,65,100,150)<br>E(40,50,60,100)<br>V(40,60,100) | E(200)(M) | | | | |
| 470 | 477 | D(35)<br>F(200)<br>Y(100) | D(45,100)<br>E(35,45,100) | D(45,60,100,200)<br>E(45,50,60,100,200)<br>V(40,55,100), Y(150) | E(45,50,60,100,200)<br>V(40,60,100) | | | | | |
| 680 | 687 | D(35,50)<br>E(35,50)<br>Y(100) | D(45,60,100)<br>E(40,60,100) | E(45,60,100)<br>V(35,40,50) | | | | | | |
| 1000 | 108 | E(30,40)<br>Y(100)(M) | E(40,60)<br>V(25,35,40,50) | E(100)(M), V(40,50)(M) | | | | | | |
| 1500 | 158 | D(100)<br>E(50)<br>V(30,40)(M) | E(50,75)<br>V(50,75)(M) | | | | | | | |

Not recommended for new designs, higher voltage or smaller case size substitution are offered.

Released codes (M tolerance only)

Engineering samples - please contact manufacturer

*Codes under development - subject to change

ESR limits quoted in brackets (milliohms)

NOTE: Voltage ratings are minimum values. AVX reserves the right to supply higher ratings in the same case size, to the same reliability standards.

## RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| **2.5 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSB107*002#0200 | B | 100 | 2.5 | 85 | 1.7 | 125 | 2.5 | 8 | 200 | 1 | 0.652 | 0.587 | 0.261 |
| TPSB157*002#0150 | B | 150 | 2.5 | 85 | 1.7 | 125 | 3 | 10 | 150 | 1 | 0.753 | 0.677 | 0.301 |
| TPSB227*002#0150 | B | 220 | 2.5 | 85 | 1.7 | 125 | 4.4 | 16 | 150 | 1 | 0.753 | 0.677 | 0.301 |
| TPSB227*002#0200 | B | 220 | 2.5 | 85 | 1.7 | 125 | 4.4 | 16 | 200 | 1 | 0.652 | 0.587 | 0.261 |
| TPSB227*002#0600 | B | 220 | 2.5 | 85 | 1.7 | 125 | 4.4 | 16 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSD227*002#0045 | D | 220 | 2.5 | 85 | 1.7 | 125 | 5.5 | 8 | 45 | 1 | 1.826 | 1.643 | 0.730 |
| TPSY337*002#0040 | Y | 330 | 2.5 | 85 | 1.7 | 125 | 8.2 | 8 | 40 | 1[1)] | 1.768 | 1.591 | 0.707 |
| TPSD477*002#0035 | D | 470 | 2.5 | 85 | 1.7 | 125 | 11.6 | 8 | 35 | 1 | 2.070 | 1.863 | 0.828 |
| TPSF477*002#0200 | F | 470 | 2.5 | 85 | 1.7 | 125 | 11.8 | 12 | 200 | 1 | 0.707 | 0.636 | 0.283 |
| TPSY477*002#0100 | Y | 470 | 2.5 | 85 | 1.7 | 125 | 11 | 12 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSD687*002#0035 | D | 680 | 2.5 | 85 | 1.7 | 125 | 17 | 16 | 35 | 1 | 2.070 | 1.863 | 0.828 |
| TPSD687*002#0050 | D | 680 | 2.5 | 85 | 1.7 | 125 | 17 | 16 | 50 | 1 | 1.732 | 1.559 | 0.693 |
| TPSE687*002#0035 | E | 680 | 2.5 | 85 | 1.7 | 125 | 17 | 10 | 35 | 1[1)] | 2.171 | 1.954 | 0.868 |
| TPSE687*002#0050 | E | 680 | 2.5 | 85 | 1.7 | 125 | 17 | 10 | 50 | 1[1)] | 1.817 | 1.635 | 0.727 |
| TPSY687*002#0100 | Y | 680 | 2.5 | 85 | 1.7 | 125 | 17 | 12 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSE108*002#0030 | E | 1000 | 2.5 | 85 | 1.7 | 125 | 25 | 14 | 30 | 1[1)] | 2.345 | 2.111 | 0.938 |
| TPSE108*002#0040 | E | 1000 | 2.5 | 85 | 1.7 | 125 | 25 | 14 | 40 | 1[1)] | 2.031 | 1.828 | 0.812 |
| TPSY108M002#0100 | Y | 1000 | 2.5 | 85 | 1.7 | 125 | 25 | 30 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSD158*002#0100 | D | 1500 | 2.5 | 85 | 1.7 | 125 | 37.5 | 60 | 100 | 1 | 1.125 | 1.102 | 0.490 |
| TPSE158*002#0050 | E | 1500 | 2.5 | 85 | 1.7 | 125 | 37.5 | 20 | 50 | 1[1)] | 1.817 | 1.635 | 0.727 |
| TPSV158M002#0030 | V | 1500 | 2.5 | 85 | 1.7 | 125 | 30 | 20 | 30 | 1[1)] | 2.887 | 2.598 | 1.155 |
| TPSV158M002#0040 | V | 1500 | 2.5 | 85 | 1.7 | 125 | 30 | 20 | 40 | 1[1)] | 2.500 | 2.250 | 1.000 |
| **4 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSR106*004#3000 | R | 10 | 4 | 85 | 2.7 | 125 | 0.5 | 6 | 3000 | 1 | 0.135 | 0.122 | 0.054 |
| TPSA476*004#0500 | A | 47 | 4 | 85 | 2.7 | 125 | 1.9 | 8 | 500 | 1 | 0.387 | 0.349 | 0.155 |
| TPSB107*004#0200 | B | 100 | 4 | 85 | 2.7 | 125 | 4 | 8 | 200 | 1 | 0.652 | 0.587 | 0.261 |
| TPSB107*004#0250 | B | 100 | 4 | 85 | 2.7 | 125 | 4 | 8 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB107*004#0350 | B | 100 | 4 | 85 | 2.7 | 125 | 4 | 8 | 350 | 1 | 0.493 | 0.444 | 0.197 |
| TPSB107*004#0500 | B | 100 | 4 | 85 | 2.7 | 125 | 4 | 8 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSW107*004#0100 | W | 100 | 4 | 85 | 2.7 | 125 | 4 | 6 | 100 | 1 | 0.949 | 0.854 | 0.379 |
| TPSB157*004#0250 | B | 150 | 4 | 85 | 2.7 | 125 | 6 | 10 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSC157*004#0070 | C | 150 | 4 | 85 | 2.7 | 125 | 6 | 6 | 70 | 1 | 1.254 | 1.128 | 0.501 |
| TPSC157*004#0080 | C | 150 | 4 | 85 | 2.7 | 125 | 6 | 6 | 80 | 1 | 1.173 | 1.055 | 0.469 |
| TPSD227*004#0040 | D | 220 | 4 | 85 | 2.7 | 125 | 8.8 | 8 | 40 | 1 | 1.936 | 1.743 | 0.775 |
| TPSD227*004#0050 | D | 220 | 4 | 85 | 2.7 | 125 | 8.8 | 8 | 50 | 1 | 1.732 | 1.559 | 0.693 |
| TPSD227*004#0100 | D | 220 | 4 | 85 | 2.7 | 125 | 8.8 | 8 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSY227*004#0040 | Y | 220 | 4 | 85 | 2.7 | 125 | 8.8 | 8 | 40 | 1[1)] | 1.768 | 1.591 | 0.707 |
| TPSY227*004#0050 | Y | 220 | 4 | 85 | 2.7 | 125 | 8.8 | 8 | 50 | 1[1)] | 1.581 | 1.423 | 0.632 |
| TPSY227*004#0075 | Y | 220 | 4 | 85 | 2.7 | 125 | 8.8 | 8 | 75 | 1[1)] | 1.291 | 1.162 | 0.516 |
| TPSC337*004#0100 | C | 330 | 4 | 85 | 2.7 | 125 | 13.2 | 8 | 100 | 1 | 1.049 | 0.944 | 0.420 |
| TPSD337*004#0035 | D | 330 | 4 | 85 | 2.7 | 125 | 13.2 | 8 | 35 | 1 | 2.070 | 1.863 | 0.828 |
| TPSD337*004#0045 | D | 330 | 4 | 85 | 2.7 | 125 | 13.2 | 8 | 45 | 1 | 1.826 | 1.643 | 0.730 |
| TPSD337*004#0100 | D | 330 | 4 | 85 | 2.7 | 125 | 13.2 | 8 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSF337*004#0200 | F | 330 | 4 | 85 | 2.7 | 125 | 13.2 | 10 | 200 | 1 | 0.707 | 0.636 | 0.283 |
| TPSX337*004#0100 | X | 330 | 4 | 85 | 2.7 | 125 | 13.2 | 8 | 100 | 1[1)] | 1.000 | 0.900 | 0.400 |
| TPSD477*004#0045 | D | 470 | 4 | 85 | 2.7 | 125 | 18.8 | 12 | 45 | 1 | 1.826 | 1.643 | 0.730 |
| TPSD477*004#0100 | D | 470 | 4 | 85 | 2.7 | 125 | 18.8 | 12 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSE477*004#0035 | E | 470 | 4 | 85 | 2.7 | 125 | 18.8 | 10 | 35 | 1[1)] | 2.171 | 1.954 | 0.868 |
| TPSE477*004#0045 | E | 470 | 4 | 85 | 2.7 | 125 | 18.8 | 10 | 45 | 1[1)] | 1.915 | 1.723 | 0.766 |
| TPSE477*004#0100 | E | 470 | 4 | 85 | 2.7 | 125 | 18.8 | 10 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSD687*004#0045 | D | 680 | 4 | 85 | 2.7 | 125 | 27.2 | 14 | 45 | 1 | 1.826 | 1.643 | 0.730 |
| TPSD687*004#0060 | D | 680 | 4 | 85 | 2.7 | 125 | 27.2 | 14 | 60 | 1 | 1.581 | 1.423 | 0.632 |
| TPSD687*004#0100 | D | 680 | 4 | 85 | 2.7 | 125 | 27.2 | 14 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSE687*004#0040 | E | 680 | 4 | 85 | 2.7 | 125 | 27.2 | 10 | 40 | 1[1)] | 2.031 | 1.828 | 0.812 |
| TPSE687*004#0060 | E | 680 | 4 | 85 | 2.7 | 125 | 27.2 | 10 | 60 | 1[1)] | 1.658 | 1.492 | 0.663 |
| TPSE687*004#0100 | E | 680 | 4 | 85 | 2.7 | 125 | 27.2 | 10 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSE108*004#0040 | E | 1000 | 4 | 85 | 2.7 | 125 | 40 | 14 | 40 | 1[1)] | 2.031 | 1.828 | 0.812 |
| TPSE108*004#0060 | E | 1000 | 4 | 85 | 2.7 | 125 | 40 | 14 | 60 | 1[1)] | 1.658 | 1.492 | 0.663 |
| TPSV108*004#0025 | V | 1000 | 4 | 85 | 2.7 | 125 | 40 | 16 | 25 | 1[1)] | 3.162 | 2.846 | 1.265 |
| TPSV108*004#0035 | V | 1000 | 4 | 85 | 2.7 | 125 | 40 | 16 | 35 | 1[1)] | 2.673 | 2.405 | 1.069 |
| TPSV108*004#0040 | V | 1000 | 4 | 85 | 2.7 | 125 | 40 | 16 | 40 | 1[1)] | 2.500 | 2.250 | 1.000 |
| TPSV108*004#0050 | V | 1000 | 4 | 85 | 2.7 | 125 | 40 | 16 | 50 | 1[1)] | 2.236 | 2.012 | 0.894 |
| TPSE158*004#0050 | E | 1500 | 4 | 85 | 2.7 | 125 | 60 | 30 | 50 | 1[1)] | 1.817 | 1.635 | 0.727 |
| TPSE158*004#0075 | E | 1500 | 4 | 85 | 2.7 | 125 | 60 | 30 | 75 | 1[1)] | 1.483 | 1.335 | 0.593 |
| TPSV158M004#0050 | V | 1500 | 4 | 85 | 2.7 | 125 | 60 | 30 | 50 | 1[1)] | 2.236 | 2.012 | 0.894 |
| TPSV158M004#0075 | V | 1500 | 4 | 85 | 2.7 | 125 | 60 | 30 | 75 | 1[1)] | 1.826 | 1.643 | 0.730 |
| **6.3 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSR225*006#7000 | R | 2.2 | 6.3 | 85 | 4 | 125 | 0.5 | 6 | 7000 | 1 | 0.089 | 0.080 | 0.035 |
| TPSA335*006#2100 | A | 3.3 | 6.3 | 85 | 4 | 125 | 0.5 | 6 | 2100 | 1 | 0.189 | 0.170 | 0.076 |
| TPSS475*006#4000 | S | 4.7 | 6.3 | 85 | 4 | 125 | 0.5 | 6 | 4000 | 1 | 0.127 | 0.115 | 0.051 |

# TPS Series

## Low ESR

### RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| TPSA685*006#1800 | A | 6.8 | 6.3 | 85 | 4 | 125 | 0.5 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPSA106*006#1500 | A | 10 | 6.3 | 85 | 4 | 125 | 0.6 | 6 | 1500 | 1 | 0.224 | 0.201 | 0.089 |
| TPSB106*006#1500 | B | 10 | 6.3 | 85 | 4 | 125 | 0.6 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSR106*006#1000 | R | 10 | 6.3 | 85 | 4 | 125 | 0.6 | 8 | 1000 | 1 | 0.235 | 0.211 | 0.094 |
| TPSR106*006#1500 | R | 10 | 6.3 | 85 | 4 | 125 | 0.6 | 8 | 1500 | 1 | 0.191 | 0.172 | 0.077 |
| TPSR106*006#3000 | R | 10 | 6.3 | 85 | 4 | 125 | 0.6 | 8 | 3000 | 1 | 0.135 | 0.122 | 0.054 |
| TPST106*006#1000 | T | 10 | 6.3 | 85 | 4 | 125 | 0.6 | 6 | 1000 | 1 | 0.283 | 0.255 | 0.113 |
| TPSA156*006#0700 | A | 15 | 6.3 | 85 | 4 | 125 | 0.9 | 6 | 700 | 1 | 0.327 | 0.295 | 0.131 |
| TPSA156*006#1500 | A | 15 | 6.3 | 85 | 4 | 125 | 0.9 | 6 | 1500 | 1 | 0.224 | 0.201 | 0.089 |
| TPSA226*006#0500 | A | 22 | 6.3 | 85 | 4 | 125 | 1.4 | 6 | 500 | 1 | 0.387 | 0.349 | 0.155 |
| TPSA226*006#0900 | A | 22 | 6.3 | 85 | 4 | 125 | 1.4 | 6 | 900 | 1 | 0.289 | 0.260 | 0.115 |
| TPSB226*006#0375 | B | 22 | 6.3 | 85 | 4 | 125 | 1.4 | 6 | 375 | 1 | 0.476 | 0.428 | 0.190 |
| TPSB226*006#0600 | B | 22 | 6.3 | 85 | 4 | 125 | 1.4 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSC226*006#0500 | C | 22 | 6.3 | 85 | 4 | 125 | 1.4 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSS226*006#0900 | S | 22 | 6.3 | 85 | 4 | 125 | 1.3 | 10 | 900 | 1 | 0.269 | 0.242 | 0.107 |
| TPSA336*006#0600 | A | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 8 | 600 | 1 | 0.354 | 0.318 | 0.141 |
| TPSB336*006#0250 | B | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 6 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB336*006#0350 | B | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 6 | 350 | 1 | 0.493 | 0.444 | 0.197 |
| TPSB336*006#0450 | B | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 6 | 450 | 1 | 0.435 | 0.391 | 0.174 |
| TPSB336*006#0600 | B | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPST336*006#0800 | T | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 10 | 800 | 1 | 0.316 | 0.285 | 0.126 |
| TPSA476*006#0800 | A | 47 | 6.3 | 85 | 4 | 125 | 2.8 | 10 | 800 | 1 | 0.306 | 0.276 | 0.122 |
| TPSB476*006#0250 | B | 47 | 6.3 | 85 | 4 | 125 | 3 | 6 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB476*006#0350 | B | 47 | 6.3 | 85 | 4 | 125 | 3 | 6 | 350 | 1 | 0.493 | 0.444 | 0.197 |
| TPSB476*006#0500 | B | 47 | 6.3 | 85 | 4 | 125 | 3 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSC476*006#0300 | C | 47 | 6.3 | 85 | 4 | 125 | 3 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPST476*006#1200 | T | 47 | 6.3 | 85 | 4 | 125 | 2.8 | 10 | 1200 | 1 | 0.258 | 0.232 | 0.103 |
| TPSB686*006#0250 | B | 68 | 6.3 | 85 | 4 | 125 | 4 | 8 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB686*006#0350 | B | 68 | 6.3 | 85 | 4 | 125 | 4 | 8 | 350 | 1 | 0.493 | 0.444 | 0.197 |
| TPSB686*006#0500 | B | 68 | 6.3 | 85 | 4 | 125 | 4 | 8 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSC686*006#0150 | C | 68 | 6.3 | 85 | 4 | 125 | 4.3 | 6 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSC686*006#0200 | C | 68 | 6.3 | 85 | 4 | 125 | 4.3 | 6 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSW686*006#0110 | W | 68 | 6.3 | 85 | 4 | 125 | 4.3 | 6 | 110 | 1 | 0.905 | 0.814 | 0.362 |
| TPSW686*006#0125 | W | 68 | 6.3 | 85 | 4 | 125 | 4.3 | 6 | 125 | 1 | 0.849 | 0.764 | 0.339 |
| TPSW686*006#0250 | W | 68 | 6.3 | 85 | 4 | 125 | 4.3 | 6 | 250 | 1 | 0.600 | 0.540 | 0.240 |
| TPSB107*006#0250 | B | 100 | 6.3 | 85 | 4 | 125 | 6.3 | 10 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB107*006#0400 | B | 100 | 6.3 | 85 | 4 | 125 | 6.3 | 10 | 400 | 1 | 0.461 | 0.415 | 0.184 |
| TPSC107*006#0075 | C | 100 | 6.3 | 85 | 4 | 125 | 6.3 | 6 | 75 | 1 | 1.211 | 1.090 | 0.484 |
| TPSC107*006#0150 | C | 100 | 6.3 | 85 | 4 | 125 | 6.3 | 6 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSD107*006#0300 | D | 100 | 6.3 | 85 | 4 | 125 | 6.3 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSW107*006#0100 | W | 100 | 6.3 | 85 | 4 | 125 | 6.3 | 6 | 100 | 1 | 0.949 | 0.854 | 0.379 |
| TPSW107*006#0150 | W | 100 | 6.3 | 85 | 4 | 125 | 6.3 | 6 | 150 | 1 | 0.775 | 0.697 | 0.310 |
| TPSY107*006#0100 | Y | 100 | 6.3 | 85 | 4 | 125 | 6.3 | 6 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSC157*006#0050 | C | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 50 | 1 | 1.483 | 1.335 | 0.593 |
| TPSC157*006#0090 | C | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 90 | 1 | 1.106 | 0.995 | 0.442 |
| TPSC157*006#0150 | C | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSC157*006#0200 | C | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSC157*006#0250 | C | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 250 | 1 | 0.663 | 0.597 | 0.265 |
| TPSD157*006#0050 | D | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 50 | 1 | 1.732 | 1.559 | 0.693 |
| TPSD157*006#0125 | D | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 125 | 1 | 1.095 | 0.986 | 0.438 |
| TPSY157*006#0040 | Y | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 40 | 1[1)] | 1.768 | 1.591 | 0.707 |
| TPSY157*006#0050 | Y | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 50 | 1[1)] | 1.581 | 1.423 | 0.632 |
| TPSC227*006#0070 | C | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 70 | 1 | 1.254 | 1.128 | 0.501 |
| TPSC227*006#0100 | C | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 100 | 1 | 1.049 | 0.944 | 0.420 |
| TPSC227*006#0125 | C | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 125 | 1 | 0.938 | 0.844 | 0.375 |
| TPSC227*006#0250 | C | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 250 | 1 | 0.663 | 0.597 | 0.265 |
| TPSD227*006#0050 | D | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 50 | 1 | 1.732 | 1.559 | 0.693 |
| TPSD227*006#0100 | D | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD227*006#0125 | D | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 125 | 1 | 1.095 | 0.986 | 0.438 |
| TPSE227*006#0100 | E | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSF227*006#0200 | F | 220 | 6.3 | 85 | 4 | 125 | 13.2 | 10 | 200 | 1 | 0.707 | 0.636 | 0.283 |
| TPSY227*006#0100 | Y | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSY227*006#0150 | Y | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 150 | 1[1)] | 0.913 | 0.822 | 0.365 |
| TPSC337*006#0080 | C | 330 | 6.3 | 85 | 4 | 125 | 19.8 | 12 | 80 | 1 | 1.173 | 1.055 | 0.469 |
| TPSC337*006#0100 | C | 330 | 6.3 | 85 | 4 | 125 | 19.8 | 12 | 100 | 1 | 1.049 | 0.944 | 0.420 |
| TPSD337*006#0045 | D | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 45 | 1 | 1.826 | 1.643 | 0.730 |
| TPSD337*006#0050 | D | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 50 | 1 | 1.732 | 1.559 | 0.693 |
| TPSD337*006#0070 | D | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 70 | 1 | 1.464 | 1.317 | 0.586 |
| TPSD337*006#0100 | D | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSE337*006#0050 | E | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 50 | 1[1)] | 1.817 | 1.635 | 0.727 |
| TPSE337*006#0100 | E | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |

# TPS Series

## Low ESR

### RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| TPSE337*006#0125 | E | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 125 | 1[1)] | 1.149 | 1.034 | 0.460 |
| TPSE337*006#0150 | E | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 150 | 1[1)] | 1.049 | 0.944 | 0.420 |
| TPSV337*006#0100 | V | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 100 | 1[1)] | 1.581 | 1.423 | 0.632 |
| TPSY337*006#0075 | Y | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 12 | 75 | 1[1)] | 1.291 | 1.162 | 0.516 |
| TPSY337*006#0100 | Y | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 12 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSY337*006#0150 | Y | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 12 | 150 | 1[1)] | 0.913 | 0.822 | 0.365 |
| TPSD477*006#0045 | D | 470 | 6.3 | 85 | 4 | 125 | 28 | 12 | 45 | 1 | 1.826 | 1.643 | 0.730 |
| TPSD477*006#0060 | D | 470 | 6.3 | 85 | 4 | 125 | 28 | 12 | 60 | 1 | 1.581 | 1.423 | 0.632 |
| TPSD477*006#0100 | D | 470 | 6.3 | 85 | 4 | 125 | 28 | 12 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD477*006#0200 | D | 470 | 6.3 | 85 | 4 | 125 | 28 | 12 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSE477*006#0045 | E | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 45 | 1[1)] | 1.915 | 1.723 | 0.766 |
| TPSE477*006#0050 | E | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 50 | 1[1)] | 1.817 | 1.635 | 0.727 |
| TPSE477*006#0060 | E | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 60 | 1[1)] | 1.658 | 1.492 | 0.663 |
| TPSE477*006#0100 | E | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSE477*006#0200 | E | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| TPSV477*006#0040 | V | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 40 | 1[1)] | 2.500 | 2.250 | 1.000 |
| TPSV477*006#0055 | V | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 55 | 1[1)] | 2.132 | 1.919 | 0.853 |
| TPSV477*006#0100 | V | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 100 | 1[1)] | 1.581 | 1.423 | 0.632 |
| TPSY477*006#0150 | Y | 470 | 6.3 | 85 | 4 | 125 | 28.2 | 20 | 150 | 1[1)] | 0.913 | 0.822 | 0.365 |
| TPSE687*006#0045 | E | 680 | 6.3 | 85 | 4 | 125 | 42.8 | 10 | 45 | 1[1)] | 1.915 | 1.723 | 0.766 |
| TPSE687*006#0060 | E | 680 | 6.3 | 85 | 4 | 125 | 42.8 | 10 | 60 | 1[1)] | 1.658 | 1.492 | 0.663 |
| TPSE687*006#0100 | E | 680 | 6.3 | 85 | 4 | 125 | 42.8 | 10 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSV687*006#0035 | V | 680 | 6.3 | 85 | 4 | 125 | 42.8 | 14 | 35 | 1[1)] | 2.673 | 2.405 | 1.069 |
| TPSV687*006#0040 | V | 680 | 6.3 | 85 | 4 | 125 | 42.8 | 10 | 40 | 1[1)] | 2.500 | 2.250 | 1.000 |
| TPSV687*006#0050 | V | 680 | 6.3 | 85 | 4 | 125 | 42.8 | 10 | 50 | 1[1)] | 2.236 | 2.012 | 0.894 |
| TPSE108M006#0100 | E | 1000 | 6.3 | 85 | 4 | 125 | 60 | 20 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSV108M006#0040 | V | 1000 | 6.3 | 85 | 4 | 125 | 60 | 16 | 40 | 1[1)] | 2.500 | 2.250 | 1.000 |
| TPSV108M006#0050 | V | 1000 | 6.3 | 85 | 4 | 125 | 60 | 16 | 50 | 1[1)] | 2.236 | 2.012 | 0.894 |
| **10 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSR105*010#9000 | R | 1 | 10 | 85 | 7 | 125 | 0.5 | 4 | 9000 | 1 | 0.078 | 0.070 | 0.031 |
| TPSA225*010#1800 | A | 2.2 | 10 | 85 | 7 | 125 | 0.5 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPST335*010#1500 | T | 3.3 | 10 | 85 | 7 | 125 | 0.5 | 6 | 1500 | 1 | 0.231 | 0.208 | 0.092 |
| TPSA475*010#1400 | A | 4.7 | 10 | 85 | 7 | 125 | 0.5 | 6 | 1400 | 1 | 0.231 | 0.208 | 0.093 |
| TPSB475*010#1400 | B | 4.7 | 10 | 85 | 7 | 125 | 0.5 | 6 | 1400 | 1 | 0.246 | 0.222 | 0.099 |
| TPSR475*010#3000 | R | 4.7 | 10 | 85 | 7 | 125 | 0.5 | 6 | 3000 | 1 | 0.135 | 0.122 | 0.054 |
| TPSR475*010#5000 | R | 4.7 | 10 | 85 | 7 | 125 | 0.5 | 6 | 5000 | 1 | 0.105 | 0.094 | 0.042 |
| TPSA685*010#1800 | A | 6.8 | 10 | 85 | 7 | 125 | 0.7 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPSB685*010#1300 | B | 6.8 | 10 | 85 | 7 | 125 | 0.7 | 6 | 1300 | 1 | 0.256 | 0.230 | 0.102 |
| TPST685*010#1800 | T | 6.8 | 10 | 85 | 7 | 125 | 0.7 | 6 | 1800 | 1 | 0.211 | 0.190 | 0.084 |
| TPSA106*010#0900 | A | 10 | 10 | 85 | 7 | 125 | 1 | 6 | 900 | 1 | 0.289 | 0.260 | 0.115 |
| TPSA106*010#1800 | A | 10 | 10 | 85 | 7 | 125 | 1 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPSB106*010#1000 | B | 10 | 10 | 85 | 7 | 125 | 1 | 6 | 1000 | 1 | 0.292 | 0.262 | 0.117 |
| TPSP106M010#2000 | P | 10 | 10 | 85 | 7 | 125 | 1 | 8 | 2000 | 1 | 0.173 | 0.156 | 0.069 |
| TPSS106*010#0900 | S | 10 | 10 | 85 | 7 | 125 | 1 | 8 | 900 | 1 | 0.269 | 0.242 | 0.107 |
| TPST106*010#1000 | T | 10 | 10 | 85 | 7 | 125 | 1 | 6 | 1000 | 1 | 0.283 | 0.255 | 0.113 |
| TPST106*010#2000 | T | 10 | 10 | 85 | 7 | 125 | 1 | 6 | 2000 | 1 | 0.200 | 0.180 | 0.080 |
| TPSA156*010#1000 | A | 15 | 10 | 85 | 7 | 125 | 1.5 | 6 | 1000 | 1 | 0.274 | 0.246 | 0.110 |
| TPSB156*010#0450 | B | 15 | 10 | 85 | 7 | 125 | 1.5 | 6 | 450 | 1 | 0.435 | 0.391 | 0.174 |
| TPSB156*010#0600 | B | 15 | 10 | 85 | 7 | 125 | 1.5 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSC156*010#0700 | C | 15 | 10 | 85 | 7 | 125 | 1.5 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPST156*010#1200 | T | 15 | 10 | 85 | 7 | 125 | 1.5 | 8 | 1200 | 1 | 0.258 | 0.232 | 0.103 |
| TPSA226*010#0900 | A | 22 | 10 | 85 | 7 | 125 | 2.2 | 8 | 900 | 1 | 0.289 | 0.260 | 0.115 |
| TPSB226*010#0400 | B | 22 | 10 | 85 | 7 | 125 | 2.2 | 6 | 400 | 1 | 0.461 | 0.415 | 0.184 |
| TPSB226*010#0500 | B | 22 | 10 | 85 | 7 | 125 | 2.2 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB226*010#0700 | B | 22 | 10 | 85 | 7 | 125 | 2.2 | 6 | 700 | 1 | 0.348 | 0.314 | 0.139 |
| TPSC226*010#0300 | C | 22 | 10 | 85 | 7 | 125 | 2.2 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPST226*010#0800 | T | 22 | 10 | 85 | 7 | 125 | 2.2 | 8 | 800 | 1 | 0.316 | 0.285 | 0.126 |
| TPSA336*010#0700 | A | 33 | 10 | 85 | 7 | 125 | 3.3 | 8 | 700 | 1 | 0.327 | 0.295 | 0.131 |
| TPSB336*010#0250 | B | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB336*010#0425 | B | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 425 | 1 | 0.447 | 0.402 | 0.179 |
| TPSB336*010#0500 | B | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB336*010#0650 | B | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 650 | 1 | 0.362 | 0.325 | 0.145 |
| TPSC336*010#0150 | C | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSC336*010#0375 | C | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 375 | 1 | 0.542 | 0.487 | 0.217 |
| TPSC336*010#0500 | C | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSW336*010#0350 | W | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 350 | 1 | 0.507 | 0.456 | 0.203 |
| TPSB476*010#0250 | B | 47 | 10 | 85 | 7 | 125 | 4.7 | 8 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB476*010#0350 | B | 47 | 10 | 85 | 7 | 125 | 4.7 | 8 | 350 | 1 | 0.493 | 0.444 | 0.197 |
| TPSB476*010#0500 | B | 47 | 10 | 85 | 7 | 125 | 4.7 | 8 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB476*010#0650 | B | 47 | 10 | 85 | 7 | 125 | 4.7 | 8 | 650 | 1 | 0.362 | 0.325 | 0.145 |
| TPSC476*010#0200 | C | 47 | 10 | 85 | 7 | 125 | 4.7 | 6 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSC476*010#0350 | C | 47 | 10 | 85 | 7 | 125 | 4.7 | 6 | 350 | 1 | 0.561 | 0.505 | 0.224 |

# TPS Series

## Low ESR

### RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| TPSD476*010#0100 | D | 47 | 10 | 85 | 7 | 125 | 4.7 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD476*010#0300 | D | 47 | 10 | 85 | 7 | 125 | 4.7 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSW476*010#0125 | W | 47 | 10 | 85 | 7 | 125 | 4.7 | 6 | 125 | 1 | 0.849 | 0.764 | 0.339 |
| TPSW476*010#0150 | W | 47 | 10 | 85 | 7 | 125 | 4.7 | 6 | 150 | 1 | 0.775 | 0.697 | 0.310 |
| TPSW476*010#0250 | W | 47 | 10 | 85 | 7 | 125 | 4.7 | 6 | 250 | 1 | 0.600 | 0.540 | 0.240 |
| TPSB686*010#0600 | B | 68 | 10 | 85 | 7 | 125 | 6.8 | 8 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSC686*010#0080 | C | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 80 | 1 | 1.173 | 1.055 | 0.469 |
| TPSC686*010#0100 | C | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 100 | 1 | 1.049 | 0.944 | 0.420 |
| TPSC686*010#0200 | C | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSC686*010#0300 | C | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSD686*010#0100 | D | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD686*010#0150 | D | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSY686*010#0100 | Y | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSY686*010#0200 | Y | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 200 | 1[1)] | 0.791 | 0.712 | 0.316 |
| TPSW686*010#0100 | W | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 100 | 1 | 0.949 | 0.854 | 0.379 |
| TPSW686*010#0150 | W | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 150 | 1 | 0.775 | 0.697 | 0.310 |
| TPSB107M010#0400 | B | 100 | 10 | 85 | 7 | 125 | 10 | 8 | 400 | 1 | 0.461 | 0.415 | 0.184 |
| TPSC107*010#0075 | C | 100 | 10 | 85 | 7 | 125 | 10 | 8 | 75 | 1 | 1.211 | 1.090 | 0.484 |
| TPSC107*010#0100 | C | 100 | 10 | 85 | 7 | 125 | 10 | 8 | 100 | 1 | 1.049 | 0.944 | 0.420 |
| TPSC107*010#0150 | C | 100 | 10 | 85 | 7 | 125 | 10 | 8 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSC107*010#0200 | C | 100 | 10 | 85 | 7 | 125 | 10 | 8 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSD107*010#0050 | D | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 50 | 1 | 1.732 | 1.559 | 0.693 |
| TPSD107*010#0065 | D | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 65 | 1 | 1.519 | 1.367 | 0.608 |
| TPSD107*010#0080 | D | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 80 | 1 | 1.369 | 1.232 | 0.548 |
| TPSD107*010#0100 | D | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD107*010#0125 | D | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 125 | 1 | 1.095 | 0.986 | 0.438 |
| TPSD107*010#0150 | D | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSE107*010#0125 | E | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 125 | 1[1)] | 1.149 | 1.034 | 0.460 |
| TPSW107*010#0150 | W | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 150 | 1 | 0.775 | 0.697 | 0.310 |
| TPSX107*010#0085 | X | 100 | 10 | 85 | 7 | 125 | 10 | 8 | 85 | 1[1)] | 1.085 | 0.976 | 0.434 |
| TPSX107*010#0150 | X | 100 | 10 | 85 | 7 | 125 | 10 | 8 | 150 | 1[1)] | 0.816 | 0.735 | 0.327 |
| TPSX107*010#0200 | X | 100 | 10 | 85 | 7 | 125 | 10 | 8 | 200 | 1[1)] | 0.707 | 0.636 | 0.283 |
| TPSY107*010#0100 | Y | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSY107*010#0150 | Y | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 150 | 1[1)] | 0.913 | 0.822 | 0.365 |
| TPSY107*010#0200 | Y | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 200 | 1[1)] | 0.791 | 0.712 | 0.316 |
| TPSC157*010#0150 | C | 150 | 10 | 85 | 7 | 125 | 15 | 8 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSD157*010#0050 | D | 150 | 10 | 85 | 7 | 125 | 15 | 8 | 50 | 1 | 1.732 | 1.559 | 0.693 |
| TPSD157*010#0085 | D | 150 | 10 | 85 | 7 | 125 | 15 | 8 | 85 | 1 | 1.328 | 1.196 | 0.531 |
| TPSD157*010#0100 | D | 150 | 10 | 85 | 7 | 125 | 15 | 8 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSE157*010#0100 | E | 150 | 10 | 85 | 7 | 125 | 15 | 8 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSF157*010#0200 | F | 150 | 10 | 85 | 7 | 125 | 15 | 10 | 200 | 1 | 0.707 | 0.636 | 0.283 |
| TPSX157M010#0100 | X | 150 | 10 | 85 | 7 | 125 | 15 | 6 | 100 | 1[1)] | 1.000 | 0.900 | 0.400 |
| TPSY157*010#0100 | Y | 150 | 10 | 85 | 7 | 125 | 15 | 6 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSY157*010#0150 | Y | 150 | 10 | 85 | 7 | 125 | 15 | 6 | 150 | 1[1)] | 0.913 | 0.822 | 0.365 |
| TPSY157*010#0200 | Y | 150 | 10 | 85 | 7 | 125 | 15 | 6 | 200 | 1[1)] | 0.791 | 0.712 | 0.316 |
| TPSD227*010#0040 | D | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 40 | 1 | 1.936 | 1.743 | 0.775 |
| TPSD227*010#0050 | D | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 50 | 1 | 1.732 | 1.559 | 0.693 |
| TPSD227*010#0100 | D | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD227*010#0150 | D | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSE227*010#0050 | E | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 50 | 1[1)] | 1.817 | 1.635 | 0.727 |
| TPSE227*010#0060 | E | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 60 | 1[1)] | 1.658 | 1.492 | 0.663 |
| TPSE227*010#0070 | E | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 70 | 1[1)] | 1.535 | 1.382 | 0.614 |
| TPSE227*010#0100 | E | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSE227*010#0125 | E | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 125 | 1[1)] | 1.149 | 1.034 | 0.460 |
| TPSE227*010#0150 | E | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 150 | 1[1)] | 1.049 | 0.944 | 0.420 |
| TPSY227*010#0100 | Y | 220 | 10 | 85 | 7 | 125 | 22 | 10 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSY227*010#0150 | Y | 220 | 10 | 85 | 7 | 125 | 22 | 10 | 150 | 1[1)] | 0.913 | 0.822 | 0.365 |
| TPSY227*010#0200 | Y | 220 | 10 | 85 | 7 | 125 | 22 | 10 | 200 | 1[1)] | 0.791 | 0.712 | 0.316 |
| TPSD337*010#0050 | D | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 50 | 1 | 1.732 | 1.559 | 0.693 |
| TPSD337*010#0065 | D | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 65 | 1 | 1.519 | 1.367 | 0.608 |
| TPSD337*010#0100 | D | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD337*010#0150 | D | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSE337*010#0040 | E | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 40 | 1[1)] | 2.031 | 1.828 | 0.812 |
| TPSE337*010#0050 | E | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 50 | 1[1)] | 1.817 | 1.635 | 0.727 |
| TPSE337*010#0060 | E | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 60 | 1[1)] | 1.658 | 1.492 | 0.663 |
| TPSE337*010#0100 | E | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSV337*010#0040 | V | 330 | 10 | 85 | 7 | 125 | 33 | 10 | 40 | 1[1)] | 2.500 | 2.250 | 1.000 |
| TPSV337*010#0060 | V | 330 | 10 | 85 | 7 | 125 | 33 | 10 | 60 | 1[1)] | 2.041 | 1.837 | 0.816 |
| TPSV337*010#0100 | V | 330 | 10 | 85 | 7 | 125 | 33 | 10 | 100 | 1[1)] | 1.581 | 1.423 | 0.632 |
| TPSE477*010#0045 | E | 470 | 10 | 85 | 7 | 125 | 47 | 10 | 45 | 1[1)] | 1.915 | 1.723 | 0.766 |
| TPSE477*010#0050 | E | 470 | 10 | 85 | 7 | 125 | 47 | 10 | 50 | 1[1)] | 1.817 | 1.635 | 0.727 |

## RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| TPSE477*010#0060 | E | 470 | 10 | 85 | 7 | 125 | 47 | 10 | 60 | 1[1)] | 1.658 | 1.492 | 0.663 |
| TPSE477*010#0100 | E | 470 | 10 | 85 | 7 | 125 | 47 | 10 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSE477*010#0200 | E | 470 | 10 | 85 | 7 | 125 | 47 | 10 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| TPSV477*010#0040 | V | 470 | 10 | 85 | 7 | 125 | 47 | 10 | 40 | 1[1)] | 2.500 | 2.250 | 1.000 |
| TPSV477*010#0060 | V | 470 | 10 | 85 | 7 | 125 | 47 | 10 | 60 | 1[1)] | 2.041 | 1.837 | 0.816 |
| TPSV477*010#0100 | V | 470 | 10 | 85 | 7 | 125 | 47 | 10 | 100 | 1[1)] | 1.581 | 1.423 | 0.632 |
| **16 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA105*016#6200 | A | 1 | 16 | 85 | 10 | 125 | 0.5 | 4 | 6200 | 1 | 0.110 | 0.099 | 0.044 |
| TPSA225*016#1800 | A | 2.2 | 16 | 85 | 10 | 125 | 0.5 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPSA225*016#3500 | A | 2.2 | 16 | 85 | 10 | 125 | 0.5 | 6 | 3500 | 1 | 0.146 | 0.132 | 0.059 |
| TPST225*016#2000 | T | 2.2 | 16 | 85 | 10 | 125 | 0.5 | 6 | 2000 | 1 | 0.200 | 0.180 | 0.080 |
| TPSA335*016#3500 | A | 3.3 | 16 | 85 | 10 | 125 | 0.5 | 6 | 3500 | 1 | 0.146 | 0.132 | 0.059 |
| TPSB335*016#2500 | B | 3.3 | 16 | 85 | 10 | 125 | 0.5 | 6 | 2500 | 1 | 0.184 | 0.166 | 0.074 |
| TPSA475*016#2000 | A | 4.7 | 16 | 85 | 10 | 125 | 0.8 | 6 | 2000 | 1 | 0.194 | 0.174 | 0.077 |
| TPSB475*016#0800 | B | 4.7 | 16 | 85 | 10 | 125 | 0.8 | 6 | 800 | 1 | 0.326 | 0.293 | 0.130 |
| TPSB475*016#1500 | B | 4.7 | 16 | 85 | 10 | 125 | 0.8 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSA685*016#1500 | A | 6.8 | 16 | 85 | 10 | 125 | 1.1 | 6 | 1500 | 1 | 0.224 | 0.201 | 0.089 |
| TPSB685*016#0600 | B | 6.8 | 16 | 85 | 10 | 125 | 1.1 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSB685*016#1200 | B | 6.8 | 16 | 85 | 10 | 125 | 1.1 | 6 | 1200 | 1 | 0.266 | 0.240 | 0.106 |
| TPSA106*016#1000 | A | 10 | 16 | 85 | 10 | 125 | 1.6 | 6 | 1000 | 1 | 0.274 | 0.246 | 0.110 |
| TPSB106*016#0500 | B | 10 | 16 | 85 | 10 | 125 | 1.6 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB106*016#0800 | B | 10 | 16 | 85 | 10 | 125 | 1.6 | 6 | 800 | 1 | 0.326 | 0.293 | 0.130 |
| TPSC106*016#0500 | C | 10 | 16 | 85 | 10 | 125 | 1.6 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPST106*016#0800 | T | 10 | 16 | 85 | 10 | 125 | 1.6 | 8 | 800 | 1 | 0.316 | 0.285 | 0.126 |
| TPST106*016#1000 | T | 10 | 16 | 85 | 10 | 125 | 1.6 | 8 | 1000 | 1 | 0.283 | 0.255 | 0.113 |
| TPSW106*016#0500 | W | 10 | 16 | 85 | 10 | 125 | 1.6 | 6 | 500 | 1 | 0.424 | 0.382 | 0.170 |
| TPSW106*016#0600 | W | 10 | 16 | 85 | 10 | 125 | 1.6 | 6 | 600 | 1 | 0.387 | 0.349 | 0.155 |
| TPSB156*016#0500 | B | 15 | 16 | 85 | 10 | 125 | 2.4 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB156*016#0800 | B | 15 | 16 | 85 | 10 | 125 | 2.4 | 6 | 800 | 1 | 0.326 | 0.293 | 0.130 |
| TPSC156*016#0300 | C | 15 | 16 | 85 | 10 | 125 | 2.4 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSC156*016#0700 | C | 15 | 16 | 85 | 10 | 125 | 2.4 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSB226*016#0400 | B | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 400 | 1 | 0.461 | 0.415 | 0.184 |
| TPSB226*016#0600 | B | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSC226*016#0150 | C | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSC226*016#0250 | C | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 250 | 1 | 0.663 | 0.597 | 0.265 |
| TPSC226*016#0300 | C | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSC226*016#0375 | C | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 375 | 1 | 0.542 | 0.487 | 0.217 |
| TPSD226*016#0700 | D | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 700 | 1 | 0.463 | 0.417 | 0.185 |
| TPSW226*016#0500 | W | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 500 | 1 | 0.424 | 0.382 | 0.170 |
| TPSB336*016#0350 | B | 33 | 16 | 85 | 10 | 125 | 5.3 | 8 | 350 | 1 | 0.493 | 0.444 | 0.197 |
| TPSB336*016#0500 | B | 33 | 16 | 85 | 10 | 125 | 5.3 | 8 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSC336*016#0100 | C | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 100 | 1 | 1.049 | 0.944 | 0.420 |
| TPSC336*016#0150 | C | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSC336*016#0225 | C | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 225 | 1 | 0.699 | 0.629 | 0.280 |
| TPSC336*016#0300 | C | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSD336*016#0200 | D | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSW336*016#0140 | W | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 140 | 1 | 0.802 | 0.722 | 0.321 |
| TPSW336*016#0175 | W | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 175 | 1 | 0.717 | 0.645 | 0.287 |
| TPSW336*016#0250 | W | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 250 | 1 | 0.600 | 0.540 | 0.240 |
| TPSW336*016#0400 | W | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 400 | 1 | 0.474 | 0.427 | 0.190 |
| TPSW336*016#0500 | W | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 500 | 1 | 0.424 | 0.382 | 0.170 |
| TPSY336*016#0300 | Y | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 300 | 1[1)] | 0.645 | 0.581 | 0.258 |
| TPSY336*016#0400 | Y | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 400 | 1[1)] | 0.559 | 0.503 | 0.224 |
| TPSC476*016#0110 | C | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 110 | 1 | 1.000 | 0.900 | 0.400 |
| TPSC476*016#0350 | C | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 350 | 1 | 0.561 | 0.505 | 0.224 |
| TPSD476*016#0080 | D | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 80 | 1 | 1.369 | 1.232 | 0.548 |
| TPSD476*016#0100 | D | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD476*016#0150 | D | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSD476*016#0200 | D | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSW476*016#0200 | W | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 200 | 1 | 0.671 | 0.604 | 0.268 |
| TPSX476*016#0180 | X | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 180 | 1[1)] | 0.745 | 0.671 | 0.298 |
| TPSY476*016#0250 | Y | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 250 | 1[1)] | 0.707 | 0.636 | 0.283 |
| TPSC686*016#0125 | C | 68 | 16 | 85 | 10 | 125 | 10.9 | 6 | 125 | 1 | 0.938 | 0.844 | 0.375 |
| TPSC686*016#0200 | C | 68 | 16 | 85 | 10 | 125 | 10.9 | 6 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSD686*016#0070 | D | 68 | 16 | 85 | 10 | 125 | 10.9 | 6 | 70 | 1 | 1.464 | 1.317 | 0.586 |
| TPSD686*016#0100 | D | 68 | 16 | 85 | 10 | 125 | 10.9 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD686*016#0150 | D | 68 | 16 | 85 | 10 | 125 | 10.9 | 6 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSF686*016#0200 | F | 68 | 16 | 85 | 10 | 125 | 10.9 | 10 | 200 | 1 | 0.707 | 0.636 | 0.283 |
| TPSX686*016#0150 | X | 68 | 16 | 85 | 10 | 125 | 10.9 | 8 | 150 | 1[1)] | 0.816 | 0.735 | 0.327 |
| TPSY686*016#0150 | Y | 68 | 16 | 85 | 10 | 125 | 10.9 | 6 | 150 | 1[1)] | 0.913 | 0.822 | 0.365 |
| TPSY686*016#0200 | Y | 68 | 16 | 85 | 10 | 125 | 10.9 | 6 | 200 | 1[1)] | 0.791 | 0.712 | 0.316 |
| TPSY686*016#0250 | Y | 68 | 16 | 85 | 10 | 125 | 10.9 | 6 | 250 | 1[1)] | 0.707 | 0.636 | 0.283 |

# TPS Series

## Low ESR

### RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| TPSC107*016#0200 | C | 100 | 16 | 85 | 10 | 125 | 16 | 8 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSD107*016#0060 | D | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 60 | 1 | 1.581 | 1.423 | 0.632 |
| TPSD107*016#0100 | D | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD107*016#0125 | D | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 125 | 1 | 1.095 | 0.986 | 0.438 |
| TPSD107*016#0150 | D | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSE107*016#0055 | E | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 55 | 1[1)] | 1.732 | 1.559 | 0.693 |
| TPSE107*016#0100 | E | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSE107*016#0125 | E | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 125 | 1[1)] | 1.149 | 1.034 | 0.460 |
| TPSE107*016#0150 | E | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 150 | 1[1)] | 1.049 | 0.944 | 0.420 |
| TPSF107M016#0150 | F | 100 | 16 | 85 | 10 | 125 | 16 | 10 | 150 | 1 | 0.816 | 0.735 | 0.327 |
| TPSF107M016#0200 | F | 100 | 16 | 85 | 10 | 125 | 16 | 10 | 200 | 1 | 0.707 | 0.636 | 0.283 |
| TPSY107*016#0100 | Y | 100 | 16 | 85 | 10 | 125 | 16 | 8 | 100 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSY107*016#0150 | Y | 100 | 16 | 85 | 10 | 125 | 16 | 8 | 150 | 1[1)] | 0.913 | 0.822 | 0.365 |
| TPSY107*016#0200 | Y | 100 | 16 | 85 | 10 | 125 | 16 | 8 | 200 | 1[1)] | 0.791 | 0.712 | 0.316 |
| TPSD157*016#0060 | D | 150 | 16 | 85 | 10 | 125 | 24 | 6 | 60 | 1 | 1.581 | 1.423 | 0.632 |
| TPSD157*016#0085 | D | 150 | 16 | 85 | 10 | 125 | 24 | 6 | 85 | 1 | 1.328 | 1.196 | 0.531 |
| TPSD157*016#0100 | D | 150 | 16 | 85 | 10 | 125 | 24 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD157*016#0125 | D | 150 | 16 | 85 | 10 | 125 | 24 | 6 | 125 | 1 | 1.095 | 0.986 | 0.438 |
| TPSD157*016#0150 | D | 150 | 16 | 85 | 10 | 125 | 23 | 8 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSE157*016#0100 | E | 150 | 16 | 85 | 10 | 125 | 24 | 6 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSV157*016#0045 | V | 150 | 16 | 85 | 10 | 125 | 24 | 8 | 45 | 1[1)] | 2.357 | 2.121 | 0.943 |
| TPSV157*016#0075 | V | 150 | 16 | 85 | 10 | 125 | 24 | 8 | 75 | 1[1)] | 1.826 | 1.643 | 0.730 |
| TPSY157M016#0200 | Y | 150 | 16 | 85 | 10 | 125 | 24 | 15 | 200 | 1[1)] | 0.791 | 0.712 | 0.316 |
| TPSE227*016#0100 | E | 220 | 16 | 85 | 10 | 125 | 35.2 | 10 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSE227*016#0150 | E | 220 | 16 | 85 | 10 | 125 | 35.2 | 10 | 150 | 1[1)] | 1.049 | 0.944 | 0.420 |
| TPSV227*016#0050 | V | 220 | 16 | 85 | 10 | 125 | 35.2 | 8 | 50 | 1[1)] | 2.236 | 2.012 | 0.894 |
| TPSV227*016#0075 | V | 220 | 16 | 85 | 10 | 125 | 35.2 | 8 | 75 | 1[1)] | 1.826 | 1.643 | 0.730 |
| TPSV227*016#0100 | V | 220 | 16 | 85 | 10 | 125 | 35.2 | 8 | 100 | 1[1)] | 1.581 | 1.423 | 0.632 |
| TPSV227*016#0150 | V | 220 | 16 | 85 | 10 | 125 | 35.2 | 8 | 150 | 1[1)] | 1.291 | 1.162 | 0.516 |
| TPSE337M016#0200 | E | 330 | 16 | 85 | 10 | 125 | 52.8 | 30 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| **20 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA105*020#3000 | A | 1 | 20 | 85 | 13 | 125 | 0.5 | 4 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSR105*020#6000 | R | 1 | 20 | 85 | 13 | 125 | 0.5 | 4 | 6000 | 1 | 0.096 | 0.086 | 0.038 |
| TPSS105*020#6000 | S | 1 | 20 | 85 | 13 | 125 | 0.5 | 4 | 6000 | 1 | 0.104 | 0.094 | 0.042 |
| TPST105*020#2000 | T | 1 | 20 | 85 | 13 | 125 | 0.5 | 4 | 2000 | 1 | 0.200 | 0.180 | 0.080 |
| TPSA155*020#3000 | A | 1.5 | 20 | 85 | 13 | 125 | 0.5 | 6 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSA225*020#3000 | A | 2.2 | 20 | 85 | 13 | 125 | 0.5 | 6 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSB225*020#1700 | B | 2.2 | 20 | 85 | 13 | 125 | 0.5 | 6 | 1700 | 1 | 0.224 | 0.201 | 0.089 |
| TPSA335*020#2500 | A | 3.3 | 20 | 85 | 13 | 125 | 0.7 | 6 | 2500 | 1 | 0.173 | 0.156 | 0.069 |
| TPSB335*020#1300 | B | 3.3 | 20 | 85 | 13 | 125 | 0.7 | 6 | 1300 | 1 | 0.256 | 0.230 | 0.102 |
| TPSA475*020#1800 | A | 4.7 | 20 | 85 | 13 | 125 | 0.9 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPSB475*020#0750 | B | 4.7 | 20 | 85 | 13 | 125 | 0.9 | 6 | 750 | 1 | 0.337 | 0.303 | 0.135 |
| TPSB475*020#1000 | B | 4.7 | 20 | 85 | 13 | 125 | 0.9 | 6 | 1000 | 1 | 0.292 | 0.262 | 0.117 |
| TPSA685*020#1000 | A | 6.8 | 20 | 85 | 13 | 125 | 1.4 | 6 | 1000 | 1 | 0.274 | 0.246 | 0.110 |
| TPSB685*020#0600 | B | 6.8 | 20 | 85 | 13 | 125 | 1.4 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSB685*020#1000 | B | 6.8 | 20 | 85 | 13 | 125 | 1.4 | 6 | 1000 | 1 | 0.292 | 0.262 | 0.117 |
| TPSC685*020#0700 | C | 6.8 | 20 | 85 | 13 | 125 | 1.4 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSB106*020#0500 | B | 10 | 20 | 85 | 13 | 125 | 2 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB106*020#1000 | B | 10 | 20 | 85 | 13 | 125 | 2 | 6 | 1000 | 1 | 0.292 | 0.262 | 0.117 |
| TPSC106*020#0500 | C | 10 | 20 | 85 | 13 | 125 | 2 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSC106*020#0700 | C | 10 | 20 | 85 | 13 | 125 | 2 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSW106*020#0250 | W | 10 | 20 | 85 | 13 | 125 | 2 | 6 | 250 | 1 | 0.600 | 0.540 | 0.240 |
| TPSW106*020#0500 | W | 10 | 20 | 85 | 13 | 125 | 2 | 6 | 500 | 1 | 0.424 | 0.382 | 0.170 |
| TPSB156*020#0500 | B | 15 | 20 | 85 | 13 | 125 | 3 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSC156*020#0400 | C | 15 | 20 | 85 | 13 | 125 | 3 | 6 | 400 | 1 | 0.524 | 0.472 | 0.210 |
| TPSC156*020#0450 | C | 15 | 20 | 85 | 13 | 125 | 3 | 6 | 450 | 1 | 0.494 | 0.445 | 0.198 |
| TPSB226*020#0400 | B | 22 | 20 | 85 | 13 | 125 | 4.4 | 6 | 400 | 1 | 0.461 | 0.415 | 0.184 |
| TPSB226*020#0600 | B | 22 | 20 | 85 | 13 | 125 | 4.4 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSC226*020#0100 | C | 22 | 20 | 85 | 13 | 125 | 4.4 | 6 | 100 | 1 | 1.049 | 0.944 | 0.420 |
| TPSC226*020#0150 | C | 22 | 20 | 85 | 13 | 125 | 4.4 | 6 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSC226*020#0400 | C | 22 | 20 | 85 | 13 | 125 | 4.4 | 6 | 400 | 1 | 0.524 | 0.472 | 0.210 |
| TPSD226*020#0200 | D | 22 | 20 | 85 | 13 | 125 | 4.4 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSD226*020#0300 | D | 22 | 20 | 85 | 13 | 125 | 4.4 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSC336*020#0300 | C | 33 | 20 | 85 | 13 | 125 | 6.6 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSD336*020#0100 | D | 33 | 20 | 85 | 13 | 125 | 6.6 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD336*020#0200 | D | 33 | 20 | 85 | 13 | 125 | 6.6 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSD476*020#0075 | D | 47 | 20 | 85 | 13 | 125 | 9.4 | 6 | 75 | 1 | 1.414 | 1.273 | 0.566 |
| TPSD476*020#0100 | D | 47 | 20 | 85 | 13 | 125 | 9.4 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD476*020#0200 | D | 47 | 20 | 85 | 13 | 125 | 9.4 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSE476*020#0070 | E | 47 | 20 | 85 | 13 | 125 | 9.4 | 6 | 70 | 1[1)] | 1.535 | 1.382 | 0.614 |
| TPSE476*020#0125 | E | 47 | 20 | 85 | 13 | 125 | 9.4 | 6 | 125 | 1[1)] | 1.149 | 1.034 | 0.460 |

## RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| TPSE476*020#0150 | E | 47 | 20 | 85 | 13 | 125 | 9.4 | 6 | 150 | 1[1)] | 1.049 | 0.944 | 0.420 |
| TPSE476*020#0200 | E | 47 | 20 | 85 | 13 | 125 | 9.4 | 6 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| TPSE476*020#0250 | E | 47 | 20 | 85 | 13 | 125 | 9.4 | 6 | 250 | 1[1)] | 0.812 | 0.731 | 0.325 |
| TPSX476*020#0200 | X | 47 | 20 | 85 | 13 | 125 | 9.4 | 6 | 200 | 1[1)] | 0.707 | 0.636 | 0.283 |
| TPSD686*020#0070 | D | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 70 | 1 | 1.464 | 1.317 | 0.586 |
| TPSD686*020#0150 | D | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSD686*020#0200 | D | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSD686*020#0300 | D | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSE686*020#0125 | E | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 125 | 1[1)] | 1.149 | 1.034 | 0.460 |
| TPSE686*020#0150 | E | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 150 | 1[1)] | 1.049 | 0.944 | 0.420 |
| TPSE686*020#0200 | E | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| TPSY686*020#0200 | Y | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 200 | 1[1)] | 0.791 | 0.712 | 0.316 |
| TPSD107*020#0085 | D | 100 | 20 | 85 | 13 | 125 | 20 | 6 | 85 | 1 | 1.328 | 1.196 | 0.531 |
| TPSD107*020#0100 | D | 100 | 20 | 85 | 13 | 125 | 20 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD107*020#0150 | D | 100 | 20 | 85 | 13 | 125 | 20 | 6 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSE107*020#0100 | E | 100 | 20 | 85 | 13 | 125 | 20 | 6 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSE107*020#0150 | E | 100 | 20 | 85 | 13 | 125 | 20 | 6 | 150 | 1[1)] | 1.049 | 0.944 | 0.420 |
| TPSE107*020#0200 | E | 100 | 20 | 85 | 13 | 125 | 20 | 6 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| TPSV107*020#0060 | V | 100 | 20 | 85 | 13 | 125 | 20 | 8 | 60 | 1[1)] | 2.041 | 1.837 | 0.816 |
| TPSV107*020#0085 | V | 100 | 20 | 85 | 13 | 125 | 20 | 8 | 85 | 1[1)] | 1.715 | 1.543 | 0.686 |
| TPSV107*020#0100 | V | 100 | 20 | 85 | 13 | 125 | 20 | 8 | 100 | 1[1)] | 1.581 | 1.423 | 0.632 |
| TPSV107*020#0200 | V | 100 | 20 | 85 | 13 | 125 | 20 | 8 | 200 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSV157*020#0080 | V | 150 | 20 | 85 | 13 | 125 | 30 | 8 | 80 | 1[1)] | 1.768 | 1.591 | 0.707 |
| **25 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA474*025#7000 | A | 0.47 | 25 | 85 | 17 | 125 | 0.5 | 4 | 7000 | 1 | 0.104 | 0.093 | 0.041 |
| TPSA684*025#6000 | A | 0.68 | 25 | 85 | 17 | 125 | 0.5 | 4 | 6000 | 1 | 0.112 | 0.101 | 0.045 |
| TPSA105*025#4000 | A | 1 | 25 | 85 | 17 | 125 | 0.5 | 4 | 4000 | 1 | 0.137 | 0.123 | 0.055 |
| TPSR105*025#2500 | R | 1 | 25 | 85 | 17 | 125 | 0.5 | 4 | 2500 | 1 | 0.148 | 0.133 | 0.059 |
| TPSR105*025#4000 | R | 1 | 25 | 85 | 17 | 125 | 0.5 | 4 | 4000 | 1 | 0.117 | 0.106 | 0.047 |
| TPSA155*025#3000 | A | 1.5 | 25 | 85 | 17 | 125 | 0.5 | 6 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSB155*025#1800 | B | 1.5 | 25 | 85 | 17 | 125 | 0.5 | 6 | 1800 | 1 | 0.217 | 0.196 | 0.087 |
| TPSA225*025#2500 | A | 2.2 | 25 | 85 | 17 | 125 | 0.6 | 6 | 2500 | 1 | 0.173 | 0.156 | 0.069 |
| TPSB225*025#0900 | B | 2.2 | 25 | 85 | 17 | 125 | 0.6 | 6 | 900 | 1 | 0.307 | 0.277 | 0.123 |
| TPSB225*025#1200 | B | 2.2 | 25 | 85 | 17 | 125 | 0.6 | 6 | 1200 | 1 | 0.266 | 0.240 | 0.106 |
| TPSB225*025#2500 | B | 2.2 | 25 | 85 | 17 | 125 | 0.6 | 6 | 2500 | 1 | 0.184 | 0.166 | 0.074 |
| TPSA335*025#1000 | A | 3.3 | 25 | 85 | 17 | 125 | 0.8 | 6 | 1000 | 1 | 0.274 | 0.246 | 0.110 |
| TPSA335*025#1500 | A | 3.3 | 25 | 85 | 17 | 125 | 0.8 | 6 | 1500 | 1 | 0.224 | 0.201 | 0.089 |
| TPSB335*025#0750 | B | 3.3 | 25 | 85 | 17 | 125 | 0.8 | 6 | 750 | 1 | 0.337 | 0.303 | 0.135 |
| TPSB335*025#1500 | B | 3.3 | 25 | 85 | 17 | 125 | 0.8 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSB335*025#2000 | B | 3.3 | 25 | 85 | 17 | 125 | 0.8 | 6 | 2000 | 1 | 0.206 | 0.186 | 0.082 |
| TPSB475*025#0700 | B | 4.7 | 25 | 85 | 17 | 125 | 1.2 | 6 | 700 | 1 | 0.348 | 0.314 | 0.139 |
| TPSB475*025#0900 | B | 4.7 | 25 | 85 | 17 | 125 | 1.2 | 6 | 900 | 1 | 0.307 | 0.277 | 0.123 |
| TPSB475*025#1500 | B | 4.7 | 25 | 85 | 17 | 125 | 1.2 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSC475*025#0700 | C | 4.7 | 25 | 85 | 17 | 125 | 1.2 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSB685*025#0700 | B | 6.8 | 25 | 85 | 17 | 125 | 1.7 | 6 | 700 | 1 | 0.348 | 0.314 | 0.139 |
| TPSC685*025#0500 | C | 6.8 | 25 | 85 | 17 | 125 | 1.7 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSC685*025#0600 | C | 6.8 | 25 | 85 | 17 | 125 | 1.7 | 6 | 600 | 1 | 0.428 | 0.385 | 0.171 |
| TPSC685*025#0700 | C | 6.8 | 25 | 85 | 17 | 125 | 1.7 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSB106*025#1800 | B | 10 | 25 | 85 | 17 | 125 | 2.5 | 6 | 1800 | 1 | 0.217 | 0.196 | 0.087 |
| TPSC106*025#0300 | C | 10 | 25 | 85 | 17 | 125 | 2.5 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSC106*025#0500 | C | 10 | 25 | 85 | 17 | 125 | 2.5 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSD106*025#0500 | D | 10 | 25 | 85 | 17 | 125 | 2.5 | 6 | 500 | 1 | 0.548 | 0.493 | 0.219 |
| TPSC156*025#0220 | C | 15 | 25 | 85 | 17 | 125 | 3.8 | 6 | 220 | 1 | 0.707 | 0.636 | 0.283 |
| TPSC156*025#0300 | C | 15 | 25 | 85 | 17 | 125 | 3.8 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSD156*025#0100 | D | 15 | 25 | 85 | 17 | 125 | 3.8 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD156*025#0300 | D | 15 | 25 | 85 | 17 | 125 | 3.8 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSC226*025#0275 | C | 22 | 25 | 85 | 17 | 125 | 5.5 | 6 | 275 | 1 | 0.632 | 0.569 | 0.253 |
| TPSC226*025#0400 | C | 22 | 25 | 85 | 17 | 125 | 5.5 | 6 | 400 | 1 | 0.524 | 0.472 | 0.210 |
| TPSD226*025#0100 | D | 22 | 25 | 85 | 17 | 125 | 5.5 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD226*025#0200 | D | 22 | 25 | 85 | 17 | 125 | 5.5 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSD226*025#0300 | D | 22 | 25 | 85 | 17 | 125 | 5.5 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSD336*025#0100 | D | 33 | 25 | 85 | 17 | 125 | 8.3 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD336*025#0200 | D | 33 | 25 | 85 | 17 | 125 | 8.3 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSD336*025#0300 | D | 33 | 25 | 85 | 17 | 125 | 8.3 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSE336*025#0100 | E | 33 | 25 | 85 | 17 | 125 | 8.3 | 6 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSE336*025#0175 | E | 33 | 25 | 85 | 17 | 125 | 8.3 | 6 | 175 | 1[1)] | 0.971 | 0.874 | 0.388 |
| TPSE336*025#0200 | E | 33 | 25 | 85 | 17 | 125 | 8.3 | 6 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| TPSE336*025#0300 | E | 33 | 25 | 85 | 17 | 125 | 8.3 | 6 | 300 | 1[1)] | 0.742 | 0.667 | 0.297 |
| TPSY336*025#0200 | Y | 33 | 25 | 85 | 17 | 125 | 8.3 | 6 | 200 | 1[1)] | 0.791 | 0.712 | 0.316 |
| TPSD476*025#0125 | D | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 125 | 1 | 1.095 | 0.986 | 0.438 |
| TPSD476*025#0150 | D | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 150 | 1 | 1.000 | 0.900 | 0.400 |

# TPS Series

## Low ESR

### RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| TPSD476*025#0250 | D | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 250 | 1 | 0.775 | 0.697 | 0.310 |
| TPSE476*025#0080 | E | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 80 | 1[1)] | 1.436 | 1.293 | 0.574 |
| TPSE476*025#0100 | E | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSE476*025#0125 | E | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 125 | 1[1)] | 1.149 | 1.034 | 0.460 |
| TPSY476*025#0250 | Y | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 250 | 1[1)] | 0.707 | 0.636 | 0.283 |
| TPSE686*025#0125 | E | 68 | 25 | 85 | 17 | 125 | 17 | 6 | 125 | 1[1)] | 1.149 | 1.034 | 0.460 |
| TPSE686*025#0200 | E | 68 | 25 | 85 | 17 | 125 | 17 | 6 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| TPSV686*025#0080 | V | 68 | 25 | 85 | 17 | 125 | 17 | 6 | 80 | 1[1)] | 1.768 | 1.591 | 0.707 |
| TPSV686*025#0095 | V | 68 | 25 | 85 | 17 | 125 | 17 | 6 | 95 | 1[1)] | 1.622 | 1.460 | 0.649 |
| TPSV686*025#0150 | V | 68 | 25 | 85 | 17 | 125 | 17 | 6 | 150 | 1[1)] | 1.291 | 1.162 | 0.516 |
| TPSV686*025#0200 | V | 68 | 25 | 85 | 17 | 125 | 17 | 6 | 200 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSE107M025#0150 | E | 100 | 25 | 85 | 17 | 125 | 25 | 10 | 150 | 1[1)] | 1.049 | 0.944 | 0.420 |
| TPSV107*025#0100 | V | 100 | 25 | 85 | 17 | 125 | 25 | 8 | 100 | 1[1)] | 1.581 | 1.423 | 0.632 |
| TPSV157M025#0150 | V | 150 | 25 | 85 | 17 | 125 | 37.5 | 10 | 150 | 1[1)] | 1.291 | 1.162 | 0.516 |
| **35 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA224*035#6000 | A | 0.22 | 35 | 85 | 23 | 125 | 0.5 | 4 | 6000 | 1 | 0.112 | 0.101 | 0.045 |
| TPSA334*035#6000 | A | 0.33 | 35 | 85 | 23 | 125 | 0.5 | 4 | 6000 | 1 | 0.112 | 0.101 | 0.045 |
| TPSA474*035#6000 | A | 0.47 | 35 | 85 | 23 | 125 | 0.5 | 4 | 6000 | 1 | 0.112 | 0.101 | 0.045 |
| TPSB474*035#4000 | B | 0.47 | 35 | 85 | 23 | 125 | 0.5 | 4 | 4000 | 1 | 0.146 | 0.131 | 0.058 |
| TPSA684*035#6000 | A | 0.68 | 35 | 85 | 23 | 125 | 0.5 | 4 | 6000 | 1 | 0.112 | 0.101 | 0.045 |
| TPSA105*035#3000 | A | 1 | 35 | 85 | 23 | 125 | 0.5 | 4 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSB105*035#2000 | B | 1 | 35 | 85 | 23 | 125 | 0.5 | 4 | 2000 | 1 | 0.206 | 0.186 | 0.082 |
| TPSA155*035#3000 | A | 1.5 | 35 | 85 | 23 | 125 | 0.5 | 6 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSB155*035#2500 | B | 1.5 | 35 | 85 | 23 | 125 | 0.5 | 6 | 2500 | 1 | 0.184 | 0.166 | 0.074 |
| TPSA225*035#1500 | A | 2.2 | 35 | 85 | 23 | 125 | 0.8 | 6 | 1500 | 1 | 0.224 | 0.201 | 0.089 |
| TPSB225*035#0750 | B | 2.2 | 35 | 85 | 23 | 125 | 0.8 | 6 | 750 | 1 | 0.337 | 0.303 | 0.135 |
| TPSB225*035#1500 | B | 2.2 | 35 | 85 | 23 | 125 | 0.8 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSB225*035#2000 | B | 2.2 | 35 | 85 | 23 | 125 | 0.8 | 6 | 2000 | 1 | 0.206 | 0.186 | 0.082 |
| TPSC225*035#1000 | C | 2.2 | 35 | 85 | 23 | 125 | 0.8 | 6 | 1000 | 1 | 0.332 | 0.298 | 0.133 |
| TPSB335*035#1000 | B | 3.3 | 35 | 85 | 23 | 125 | 1.2 | 6 | 1000 | 1 | 0.292 | 0.262 | 0.117 |
| TPSC335*035#0700 | C | 3.3 | 35 | 85 | 23 | 125 | 1.2 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSB475*035#0700 | B | 4.7 | 35 | 85 | 23 | 125 | 1.6 | 6 | 700 | 1 | 0.348 | 0.314 | 0.139 |
| TPSB475*035#1500 | B | 4.7 | 35 | 85 | 23 | 125 | 1.6 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSC475*035#0600 | C | 4.7 | 35 | 85 | 23 | 125 | 1.6 | 6 | 600 | 1 | 0.428 | 0.385 | 0.171 |
| TPSD475*035#0700 | D | 4.7 | 35 | 85 | 23 | 125 | 1.6 | 6 | 700 | 1 | 0.463 | 0.417 | 0.185 |
| TPSC685*035#0350 | C | 6.8 | 35 | 85 | 23 | 125 | 2.4 | 6 | 350 | 1 | 0.561 | 0.505 | 0.224 |
| TPSD685*035#0150 | D | 6.8 | 35 | 85 | 23 | 125 | 2.4 | 6 | 150 | 1 | 1.000 | 0.900 | 0.400 |
| TPSD685*035#0400 | D | 6.8 | 35 | 85 | 23 | 125 | 2.4 | 6 | 400 | 1 | 0.612 | 0.551 | 0.245 |
| TPSD685*035#0500 | D | 6.8 | 35 | 85 | 23 | 125 | 2.4 | 6 | 500 | 1 | 0.548 | 0.493 | 0.219 |
| TPSC106*035#0600 | C | 10 | 35 | 85 | 23 | 125 | 3.5 | 6 | 600 | 1 | 0.428 | 0.385 | 0.171 |
| TPSD106*035#0125 | D | 10 | 35 | 85 | 23 | 125 | 3.5 | 6 | 125 | 1 | 1.095 | 0.986 | 0.438 |
| TPSD106*035#0300 | D | 10 | 35 | 85 | 23 | 125 | 3.5 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSE106*035#0200 | E | 10 | 35 | 85 | 23 | 125 | 3.5 | 6 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| TPSY106*035#0250 | Y | 10 | 35 | 85 | 23 | 125 | 3.5 | 6 | 250 | 1[1)] | 0.707 | 0.636 | 0.283 |
| TPSC156*035#0350 | C | 15 | 35 | 85 | 23 | 125 | 5.3 | 6 | 350 | 1 | 0.561 | 0.505 | 0.224 |
| TPSC156*035#0450 | C | 15 | 35 | 85 | 23 | 125 | 5.3 | 6 | 450 | 1 | 0.494 | 0.445 | 0.198 |
| TPSD156*035#0100 | D | 15 | 35 | 85 | 23 | 125 | 5.3 | 6 | 100 | 1 | 1.225 | 1.102 | 0.490 |
| TPSD156*035#0300 | D | 15 | 35 | 85 | 23 | 125 | 5.3 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSY156*035#0250 | Y | 15 | 35 | 85 | 23 | 125 | 5.3 | 6 | 250 | 1[1)] | 0.707 | 0.636 | 0.283 |
| TPSD226*035#0125 | D | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 125 | 1 | 1.095 | 0.986 | 0.438 |
| TPSD226*035#0200 | D | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSD226*035#0300 | D | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSD226*035#0400 | D | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 400 | 1 | 0.612 | 0.551 | 0.245 |
| TPSE226*035#0125 | E | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 125 | 1[1)] | 1.149 | 1.034 | 0.460 |
| TPSE226*035#0200 | E | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| TPSE226*035#0300 | E | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 300 | 1[1)] | 0.742 | 0.667 | 0.297 |
| TPSY226*035#0200 | Y | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 200 | 1[1)] | 0.791 | 0.712 | 0.316 |
| TPSD336*035#0200 | D | 33 | 35 | 85 | 23 | 125 | 11.6 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSD336*035#0300 | D | 33 | 35 | 85 | 23 | 125 | 11.6 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSE336*035#0100 | E | 33 | 35 | 85 | 23 | 125 | 11.6 | 6 | 100 | 1[1)] | 1.285 | 1.156 | 0.514 |
| TPSE336*035#0250 | E | 33 | 35 | 85 | 23 | 125 | 11.6 | 6 | 250 | 1[1)] | 0.812 | 0.731 | 0.325 |
| TPSE336*035#0300 | E | 33 | 35 | 85 | 23 | 125 | 11.6 | 6 | 300 | 1[1)] | 0.742 | 0.667 | 0.297 |
| TPSV336*035#0200 | V | 33 | 35 | 85 | 23 | 125 | 11.6 | 6 | 200 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSE476*035#0200 | E | 47 | 35 | 85 | 23 | 125 | 16.5 | 6 | 200 | 1[1)] | 0.908 | 0.817 | 0.363 |
| TPSE476*035#0250 | E | 47 | 35 | 85 | 23 | 125 | 16.5 | 6 | 250 | 1[1)] | 0.812 | 0.731 | 0.325 |
| TPSV476*035#0150 | V | 47 | 35 | 85 | 23 | 125 | 16.5 | 6 | 150 | 1[1)] | 1.291 | 1.162 | 0.516 |
| TPSV476*035#0200 | V | 47 | 35 | 85 | 23 | 125 | 16.5 | 6 | 200 | 1[1)] | 1.118 | 1.006 | 0.447 |
| TPSV686*035#0150 | V | 68 | 35 | 85 | 23 | 125 | 23.8 | 6 | 150 | 1[1)] | 1.291 | 1.162 | 0.516 |
| TPSV686*035#0200 | V | 68 | 35 | 85 | 23 | 125 | 23.8 | 6 | 200 | 1[1)] | 1.118 | 1.006 | 0.447 |
| **50 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA154*050#9000 | A | 0.15 | 50 | 85 | 33 | 125 | 0.5 | 4 | 9000 | 1 | 0.091 | 0.082 | 0.037 |

# TPS Series

## Low ESR

## RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| TPSA224*050#7000 | A | 0.22 | 50 | 85 | 33 | 125 | 0.5 | 4 | 7000 | 1 | 0.104 | 0.093 | 0.041 |
| TPSA334*050#7000 | A | 0.33 | 50 | 85 | 33 | 125 | 0.5 | 4 | 7000 | 1 | 0.104 | 0.093 | 0.041 |
| TPSA474*050#6500 | A | 0.47 | 50 | 85 | 33 | 125 | 0.5 | 4 | 6500 | 1 | 0.107 | 0.097 | 0.043 |
| TPSB474*050#6000 | B | 0.47 | 50 | 85 | 33 | 125 | 0.5 | 4 | 6000 | 1 | 0.119 | 0.107 | 0.048 |
| TPSC474*050#2300 | C | 0.47 | 50 | 85 | 33 | 125 | 0.5 | 4 | 2300 | 1 | 0.219 | 0.197 | 0.087 |
| TPSB684*050#4000 | B | 0.68 | 50 | 85 | 33 | 125 | 0.5 | 4 | 4000 | 1 | 0.146 | 0.131 | 0.058 |
| TPSB105*050#3000 | B | 1 | 50 | 85 | 33 | 125 | 0.5 | 6 | 3000 | 1 | 0.168 | 0.151 | 0.067 |
| TPSC105*050#2500 | C | 1 | 50 | 85 | 33 | 125 | 0.5 | 4 | 2500 | 1 | 0.210 | 0.189 | 0.084 |
| TPSC155*050#1500 | C | 1.5 | 50 | 85 | 33 | 125 | 0.8 | 6 | 1500 | 1 | 0.271 | 0.244 | 0.108 |
| TPSC155*050#2000 | C | 1.5 | 50 | 85 | 33 | 125 | 0.8 | 6 | 2000 | 1 | 0.235 | 0.211 | 0.094 |
| TPSC225*050#1500 | C | 2.2 | 50 | 85 | 33 | 125 | 1.1 | 8 | 1500 | 1 | 0.271 | 0.244 | 0.108 |
| TPSD225*050#1200 | D | 2.2 | 50 | 85 | 33 | 125 | 1.1 | 6 | 1200 | 1 | 0.354 | 0.318 | 0.141 |
| TPSC335*050#1000 | C | 3.3 | 50 | 85 | 33 | 125 | 1.6 | 6 | 1000 | 1 | 0.332 | 0.298 | 0.133 |
| TPSD335*050#0800 | D | 3.3 | 50 | 85 | 33 | 125 | 1.7 | 6 | 800 | 1 | 0.433 | 0.390 | 0.173 |
| TPSC475*050#0800 | C | 4.7 | 50 | 85 | 33 | 125 | 2.4 | 6 | 800 | 1 | 0.371 | 0.334 | 0.148 |
| TPSD475*050#0250 | D | 4.7 | 50 | 85 | 33 | 125 | 2.4 | 6 | 250 | 1 | 0.775 | 0.697 | 0.310 |
| TPSD475*050#0300 | D | 4.7 | 50 | 85 | 33 | 125 | 2.4 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSD475*050#0500 | D | 4.7 | 50 | 85 | 33 | 125 | 2.4 | 6 | 500 | 1 | 0.548 | 0.493 | 0.219 |
| TPSD475*050#0700 | D | 4.7 | 50 | 85 | 33 | 125 | 2.4 | 6 | 700 | 1 | 0.463 | 0.417 | 0.185 |
| TPSD685*050#0200 | D | 6.8 | 50 | 85 | 33 | 125 | 3.4 | 6 | 200 | 1 | 0.866 | 0.779 | 0.346 |
| TPSD685*050#0300 | D | 6.8 | 50 | 85 | 33 | 125 | 3.4 | 6 | 300 | 1 | 0.707 | 0.636 | 0.283 |
| TPSD685*050#0500 | D | 6.8 | 50 | 85 | 33 | 125 | 3.4 | 6 | 500 | 1 | 0.548 | 0.493 | 0.219 |
| TPSD685*050#0600 | D | 6.8 | 50 | 85 | 33 | 125 | 3.4 | 6 | 600 | 1 | 0.500 | 0.450 | 0.200 |
| TPSD106*050#0500 | D | 10 | 50 | 85 | 33 | 125 | 5 | 6 | 500 | 1 | 0.548 | 0.493 | 0.219 |
| TPSE106*050#0250 | E | 10 | 50 | 85 | 33 | 125 | 5 | 6 | 250 | 1[1)] | 0.812 | 0.731 | 0.325 |
| TPSE106*050#0300 | E | 10 | 50 | 85 | 33 | 125 | 5 | 6 | 300 | 1[1)] | 0.742 | 0.667 | 0.297 |
| TPSE106*050#0400 | E | 10 | 50 | 85 | 33 | 125 | 5 | 6 | 400 | 1[1)] | 0.642 | 0.578 | 0.257 |
| TPSE106*050#0500 | E | 10 | 50 | 85 | 33 | 125 | 5 | 6 | 500 | 1[1)] | 0.574 | 0.517 | 0.230 |
| TPSE156*050#0250 | E | 15 | 50 | 85 | 33 | 125 | 7.5 | 6 | 250 | 1[1)] | 0.812 | 0.731 | 0.325 |
| TPSV156*050#0250 | V | 15 | 50 | 85 | 33 | 125 | 7.5 | 6 | 250 | 1[1)] | 1.000 | 0.900 | 0.400 |

1[1)] –Dry pack option (see How to order) recommended for reduction of stress during soldering. Dry pack parts should be treated as MSL 3.

**For AEC-Q200 availability, please contact AVX.**

Moisture Sensitivity Level (MSL) is defined according to J-STD-020

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL ismeasured at rated voltage after 5 minutes.

The EIA & CECC standards for low ESR Solid Tantalum Capacitors allow an ESR movement to 1.25 times catalogue limit post mounting.

For typical weight and composition see page 216.

**NOTE: AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.**

## QUALIFICATION TABLE

<table>
<tr><th>TEST</th><th colspan="9">TPS series (Temperature range -55°C to +125°C)</th></tr>
<tr><th></th><th colspan="3">Condition</th><th colspan="6">Characteristics</th></tr>
<tr><td rowspan="5">Endurance</td><td colspan="3" rowspan="5">Determine after application of rated voltage for 2000 +48/-0 hours at 85±2°C and then leaving 1-2 hours at room temperature. Also determine of 125°C temperature, category voltage for 2000 +48/-0 hours and then leaving 1-2 hours at room temperature. Power supply impedance to be ≤0.1Ω/V.</td><td>Visual examination</td><td colspan="5">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="5">1.5 x initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="5">within ±10% of initial value</td></tr>
<tr><td>DF</td><td colspan="5">initial limit</td></tr>
<tr><td>ESR</td><td colspan="5">1.25 x initial limit</td></tr>
<tr><td rowspan="5">Humidity</td><td colspan="3" rowspan="5">Determine after storage without applied voltage at 65±2°C and 95±2% relative humidity for 500 hours and then recovery 1-2 hours at room temperature.</td><td>Visual examination</td><td colspan="5">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="5">1.5 x initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="5">within ±10% of initial value</td></tr>
<tr><td>DF</td><td colspan="5">1.2 x initial limit</td></tr>
<tr><td>ESR</td><td colspan="5">1.25 x initial limit</td></tr>
<tr><td rowspan="8">Temperature Stability</td><td>Step</td><td>Temperature°C</td><td>Duration(min)</td><td></td><td>+20°C</td><td>-55°C</td><td>+20°C</td><td>+85°C</td><td>+125°C</td><td>+20°C</td></tr>
<tr><td>1</td><td>+20±2</td><td>15</td><td>DCL</td><td>IL*</td><td>n/a</td><td>IL*</td><td>10 x IL*</td><td>12.5 x IL*</td><td>IL*</td></tr>
<tr><td>2</td><td>-55+0/-3</td><td>15</td><td>ΔC/C</td><td>n/a</td><td>+0/-10%</td><td>±5%</td><td>+10/-0%</td><td>+12/-0%</td><td>±5%</td></tr>
<tr><td>3</td><td>+20±2</td><td>15</td><td>DF</td><td>IL*</td><td>1.5 x IL*</td><td>IL*</td><td>1.5 x IL*</td><td>2 x IL*</td><td>IL*</td></tr>
<tr><td>4</td><td>+85+3/-0</td><td>15</td><td rowspan="3">ESR</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">2.5 x IL*</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">1.25 x IL*</td></tr>
<tr><td>5</td><td>+125+3/-0</td><td>15</td></tr>
<tr><td>6</td><td>+20±2</td><td>15</td></tr>
<tr><td>Surge Voltage</td><td colspan="3">Test temperature: 125°C+3/0°C<br>Test voltage: Category voltage at 125°C<br>Surge voltage: 1.3 x category voltage at 125°C<br>Series protection resistance 1000±100Ω<br>Discharge resistance: 1000Ω<br>Number of cycles: 1000x<br>Cycle duration: 6 min; 30 sec charge,<br>5 min 30 sec discharge</td><td>Visual examination</td><td colspan="5">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="5">initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="5">within ±5% of initial value</td></tr>
<tr><td>DF</td><td colspan="5">initial limit</td></tr>
<tr><td>ESR</td><td colspan="5">1.25 x initial limit</td></tr>
</table>

*Initial Limit

# TPS Automotive Range

## Low ESR - Automotive Product Range

### TPS AUTOMOTIVE RANGE
### CAPACITANCE AND RATED VOLTAGE RANGE
### (LETTER DENOTES CASE SIZE)

| Capacitance | | Rated Voltage DC ($V_R$) to 85°C | | | | | | |
|---|---|---|---|---|---|---|---|---|
| µF | Code | 6.3V (J) | 10V (A) | 16V (C) | 20V (D) | 25V (E) | 35V (V) | 50V (T) |
| 0.15 | 154 | | | | | | | |
| 0.22 | 224 | | | | | | | A(7000) |
| 0.33 | 334 | | | | | | A(6000) | A(7000) |
| 0.47 | 474 | | | | | A(7000) | A(6000) | A(6500), B(6000) |
| 0.68 | 684 | | | | | A(6000) | A(6000) | B(4000) |
| 1.0 | 105 | | | A(6200) | A(3000) | A(4000) | A(3000), B(2000) | B(3000), C(2500) |
| 1.5 | 155 | | | | A(3000) | A(3000) | A(3000), B(2500) | C(1500,2000) |
| 2.2 | 225 | | A(1800) | A(1800,3500) | A(3000), B(1700) | A(2500), B(900,1200,2500) | B(750,1500,2000), C(1000) | C(1500), D(1200) |
| 3.3 | 335 | A(2100) | | A(3500), B(2500) | A(2500), B(1300) | B(750,1500,2000) | B(1000), C(700) | C(1000), D(800) |
| 4.7 | 475 | | A(1400), B(1400) | A(2000), B(800,1500) | A(1800), B(750,1000) | B(700,900), C(700) | B(700,1500), C(600), D(700) | C(800), D(250,500,700) |
| 6.8 | 685 | | A(1800), B(1300) | A(1500), B(600,1200) | B(600,1000), C(700) | B(700), C(500,600,700) | C(350), D(400,500) | D(500,600) |
| 10 | 106 | A(1500), B(1500) | A(900,1800), B(1000) | A(1000), B(500,800), C(500) | B(500,1000), C(500,700) | C(300,500), D(500) | C(600), D(300) | D(500), E(250,300,400,500) |
| 15 | 156 | A(700,1500) | A(1000), B(450,600), C(700) | B(500,800) C(300,700) | B(500), C(400,450) | C(220,300), D(300) | D(300) | E(250) |
| 22 | 226 | A(500,900), B(375,600), C(500) | A(900), B(400,500,700), C(180,300) | B(400,600), C(300,375), D(500), D(700) | C(400), D(200,300) | C(275,400), D(200,300) | D(200,300,400), E(200,300) | |
| 33 | 336 | A(600), B(250,350,450,600) | B(250,425,500,650), C(375,500) | C(225,300), D(200) | C(300), D(160,200) | D(200,300) | E(250,300) | |
| 47 | 476 | B(250,350,500), C(300) | B(250,350,500,650), C(200,350), D(300) | C(350), D(200) | D(200) | D(125,150,250), E(125) | | |
| 68 | 686 | B(250,350,500), C(150,200) | C(200,300), D(150) | C(200), D(150) | D(150,200,300), E(125,150,200) | | | |
| 100 | 107 | C(150), D(300) | C(150,200), D(100,125,150) | D(100,125,150), E(100,125,150) | E(100,150,200) | | | |
| 150 | 157 | C(150,200,250), D(125) | D(85,100), E(100) | E(100) | | | | |
| 220 | 227 | D(100,125) | D(100,150), E(70,100,125,150) | | | | | |
| 330 | 337 | D(70,100), E(100,125,150) | E(50,60,100) | | | | | |
| 470 | 477 | D(45,60,100,200), E(45,50,60,100,200) | | | | | | |
| 680 | 687 | E(45,60,100) | | | | | | |

Not recommended for new designs, higher voltage or smaller case size substitution are offered.
Released codes
Engineering samples - please contact manufacturer
Note: Voltage ratings are minimum values. AVX reserves the right to supply higher ratings in the same case size, to the same reliability standards.

## HOW TO ORDER

| TPS | C | 107 | M | 010 | T | 0150 | V |
|---|---|---|---|---|---|---|---|
| **Type** | **Case Size** See table above | **Capacitance Code** pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow) | **Tolerance** K = ±10% M = ±20% | **Rated DC Voltage** 006 = 6.3Vdc 010 = 10Vdc 016 = 16Vdc 020 = 20Vdc 025 = 25Vdc 035 = 35Vdc 050 = 50Vdc | **Packaging** T = Automotive Lead Free 7" Reel U = Automotive Lead Free 13" Reel | **ESR in mΩ** | **Dry Pack Option** (D,E case sizes mandatory) |

LEAD-FREE
LEAD-FREE COMPATIBLE COMPONENT

RoHS COMPLIANT

## TECHNICAL SPECIFICATIONS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Technical Data: | | All technical data relate to an ambient temperature of +25°C | | | | | | |
| Capacitance Range: | | 0.22 µF to 680 µF | | | | | | |
| Capacitance Tolerance: | | ±10%; ±20% | | | | | | |
| Rated Voltage ($V_R$) | ≤ +85°C: | 6.3 | 10 | 16 | 20 | 25 | 35 | 50 |
| Category Voltage ($V_C$) | ≤ +125°C: | 4 | 7 | 10 | 13 | 17 | 23 | 33 |
| Surge Voltage ($V_S$) | ≤ +85°C: | 8 | 13 | 20 | 26 | 32 | 46 | 65 |
| Surge Voltage ($V_S$) | ≤ +125°C: | 5 | 8 | 13 | 16 | 20 | 28 | 40 |
| Temperature Range: | | -55°C to +125°C | | | | | | |
| Environmental Classification: | | 55/125/56 (IEC 68-2) | | | | | | |
| Reliability: | | 1% per 1000 hours at 85°C, $V_R$ with 0.1Ω/V series impedance, 60% confidence level | | | | | | |
| Termination Finished: | | Sn Plating (standard), Gold and SnPb Plating upon request | | | | | | |
| | | Meets requirements of AEC-Q200 | | | | | | |

# TPS Automotive Range

## Low ESR - Automotive Product Range

### RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| **6.3 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA335*006T2100 | A | 3.3 | 6.3 | 85 | 4 | 125 | 0.5 | 6 | 2100 | 1 | 0.189 | 0.170 | 0.076 |
| TPSA106*006T1500 | A | 10 | 6.3 | 85 | 4 | 125 | 0.6 | 6 | 1500 | 1 | 0.224 | 0.201 | 0.089 |
| TPSB106*006T1500 | B | 10 | 6.3 | 85 | 4 | 125 | 0.6 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSA156*006T0700 | A | 15 | 6.3 | 85 | 4 | 125 | 0.9 | 6 | 700 | 1 | 0.327 | 0.295 | 0.131 |
| TPSA156*006T1500 | A | 15 | 6.3 | 85 | 4 | 125 | 0.9 | 6 | 1500 | 1 | 0.224 | 0.201 | 0.089 |
| TPSA226*006T0500 | A | 22 | 6.3 | 85 | 4 | 125 | 1.4 | 6 | 500 | 1 | 0.387 | 0.349 | 0.155 |
| TPSA226*006T0900 | A | 22 | 6.3 | 85 | 4 | 125 | 1.4 | 6 | 900 | 1 | 0.289 | 0.260 | 0.115 |
| TPSB226*006T0375 | B | 22 | 6.3 | 85 | 4 | 125 | 1.4 | 6 | 375 | 1 | 0.476 | 0.428 | 0.190 |
| TPSB226*006T0600 | B | 22 | 6.3 | 85 | 4 | 125 | 1.4 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSC226*006T0500 | C | 22 | 6.3 | 85 | 4 | 125 | 1.4 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSA336*006T0600 | A | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 8 | 600 | 1 | 0.354 | 0.318 | 0.141 |
| TPSB336*006T0250 | B | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 6 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB336*006T0350 | B | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 6 | 350 | 1 | 0.493 | 0.444 | 0.197 |
| TPSB336*006T0450 | B | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 6 | 450 | 1 | 0.435 | 0.391 | 0.174 |
| TPSB336*006T0600 | B | 33 | 6.3 | 85 | 4 | 125 | 2.1 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSB476*006T0250 | B | 47 | 6.3 | 85 | 4 | 125 | 3 | 6 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB476*006T0350 | B | 47 | 6.3 | 85 | 4 | 125 | 3 | 6 | 350 | 1 | 0.493 | 0.444 | 0.197 |
| TPSB476*006T0500 | B | 47 | 6.3 | 85 | 4 | 125 | 3 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSC476*006T0300 | C | 47 | 6.3 | 85 | 4 | 125 | 3 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSB686*006T0250 | B | 68 | 6.3 | 85 | 4 | 125 | 4 | 8 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB686*006T0350 | B | 68 | 6.3 | 85 | 4 | 125 | 4 | 8 | 350 | 1 | 0.493 | 0.444 | 0.197 |
| TPSB686*006T0500 | B | 68 | 6.3 | 85 | 4 | 125 | 4 | 8 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSC686*006T0150 | C | 68 | 6.3 | 85 | 4 | 125 | 4.3 | 6 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSC686*006T0200 | C | 68 | 6.3 | 85 | 4 | 125 | 4.3 | 6 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSC107*006T0150 | C | 100 | 6.3 | 85 | 4 | 125 | 6.3 | 6 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSD107*006T0300V | D | 100 | 6.3 | 85 | 4 | 125 | 6.3 | 6 | 300 | 3 | 0.707 | 0.636 | 0.283 |
| TPSC157*006T0150 | C | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSC157*006T0200 | C | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSC157*006T0250 | C | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 250 | 1 | 0.663 | 0.597 | 0.265 |
| TPSD157*006T0125V | D | 150 | 6.3 | 85 | 4 | 125 | 9.5 | 6 | 125 | 3 | 1.095 | 0.986 | 0.438 |
| TPSD227*006T0100V | D | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 100 | 3 | 1.225 | 1.102 | 0.490 |
| TPSD227*006T0125V | D | 220 | 6.3 | 85 | 4 | 125 | 13.9 | 8 | 125 | 3 | 1.095 | 0.986 | 0.438 |
| TPSD337*006T0070V | D | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 70 | 3 | 1.464 | 1.317 | 0.586 |
| TPSD337*006T0100V | D | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 100 | 3 | 1.225 | 1.102 | 0.490 |
| TPSE337*006T0100V | E | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 100 | 3 | 1.285 | 1.156 | 0.514 |
| TPSE337*006T0125V | E | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 125 | 3 | 1.149 | 1.034 | 0.460 |
| TPSE337*006T0150V | E | 330 | 6.3 | 85 | 4 | 125 | 20.8 | 8 | 150 | 3 | 1.049 | 0.944 | 0.420 |
| TPSD477*006T0045V | D | 470 | 6.3 | 85 | 4 | 125 | 28 | 12 | 45 | 3 | 1.826 | 1.643 | 0.730 |
| TPSD477*006T0060V | D | 470 | 6.3 | 85 | 4 | 125 | 28 | 12 | 60 | 3 | 1.581 | 1.423 | 0.632 |
| TPSD477*006T0100V | D | 470 | 6.3 | 85 | 4 | 125 | 28 | 12 | 100 | 3 | 1.225 | 1.102 | 0.490 |
| TPSD477*006T0200V | D | 470 | 6.3 | 85 | 4 | 125 | 28 | 12 | 200 | 3 | 0.866 | 0.779 | 0.346 |
| TPSE477*006T0045V | E | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 45 | 3 | 1.915 | 1.723 | 0.766 |
| TPSE477*006T0050V | E | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 50 | 3 | 1.817 | 1.635 | 0.727 |
| TPSE477*006T0060V | E | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 60 | 3 | 1.658 | 1.492 | 0.663 |
| TPSE477*006T0100V | E | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 100 | 3 | 1.285 | 1.156 | 0.514 |
| TPSE477*006T0200V | E | 470 | 6.3 | 85 | 4 | 125 | 28 | 10 | 200 | 3 | 0.908 | 0.817 | 0.363 |
| TPSE687*006T0045V | E | 680 | 6.3 | 85 | 4 | 125 | 42.8 | 10 | 45 | 3 | 1.915 | 1.723 | 0.766 |
| TPSE687*006T0060V | E | 680 | 6.3 | 85 | 4 | 125 | 42.8 | 10 | 60 | 3 | 1.658 | 1.492 | 0.663 |
| TPSE687*006T0100V | E | 680 | 6.3 | 85 | 4 | 125 | 42.8 | 10 | 100 | 3 | 1.285 | 1.156 | 0.514 |
| **10 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA225*010T1800 | A | 2.2 | 10 | 85 | 7 | 125 | 0.5 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPSA475*010T1400 | A | 4.7 | 10 | 85 | 7 | 125 | 0.5 | 6 | 1400 | 1 | 0.231 | 0.208 | 0.093 |
| TPSB475*010T1400 | B | 4.7 | 10 | 85 | 7 | 125 | 0.5 | 6 | 1400 | 1 | 0.246 | 0.222 | 0.099 |
| TPSA685*010T1800 | A | 6.8 | 10 | 85 | 7 | 125 | 0.7 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPSB685*010T1300 | B | 6.8 | 10 | 85 | 7 | 125 | 0.7 | 6 | 1300 | 1 | 0.256 | 0.230 | 0.102 |
| TPSA106*010T0900 | A | 10 | 10 | 85 | 7 | 125 | 1 | 6 | 900 | 1 | 0.289 | 0.260 | 0.115 |
| TPSA106*010T1800 | A | 10 | 10 | 85 | 7 | 125 | 1 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPSB106*010T1000 | B | 10 | 10 | 85 | 7 | 125 | 1 | 6 | 1000 | 1 | 0.292 | 0.262 | 0.117 |
| TPSA156*010T1000 | A | 15 | 10 | 85 | 7 | 125 | 1.5 | 6 | 1000 | 1 | 0.274 | 0.246 | 0.110 |
| TPSB156*010T0450 | B | 15 | 10 | 85 | 7 | 125 | 1.5 | 6 | 450 | 1 | 0.435 | 0.391 | 0.174 |
| TPSB156*010T0600 | B | 15 | 10 | 85 | 7 | 125 | 1.5 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSC156*010T0700 | C | 15 | 10 | 85 | 7 | 125 | 1.5 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSA226*010T0900 | A | 22 | 10 | 85 | 7 | 125 | 2.2 | 8 | 900 | 1 | 0.289 | 0.260 | 0.115 |
| TPSB226*010T0400 | B | 22 | 10 | 85 | 7 | 125 | 2.2 | 6 | 400 | 1 | 0.461 | 0.415 | 0.184 |
| TPSB226*010T0500 | B | 22 | 10 | 85 | 7 | 125 | 2.2 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB226*010T0700 | B | 22 | 10 | 85 | 7 | 125 | 2.2 | 6 | 700 | 1 | 0.348 | 0.314 | 0.139 |
| TPSC226*010T0180 | C | 22 | 10 | 85 | 7 | 125 | 2.2 | 6 | 180 | 1 | 0.782 | 0.704 | 0.313 |
| TPSC226*010T0300 | C | 22 | 10 | 85 | 7 | 125 | 2.2 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSB336*010T0250 | B | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB336*010T0425 | B | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 425 | 1 | 0.447 | 0.402 | 0.179 |

# TPS Automotive Range

## Low ESR - Automotive Product Range

### RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| TPSB336*010T0500 | B | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB336*010T0650 | B | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 650 | 1 | 0.362 | 0.325 | 0.145 |
| TPSC336*010T0375 | C | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 375 | 1 | 0.542 | 0.487 | 0.217 |
| TPSC336*010T0500 | C | 33 | 10 | 85 | 7 | 125 | 3.3 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSB476*010T0250 | B | 47 | 10 | 85 | 7 | 125 | 4.7 | 8 | 250 | 1 | 0.583 | 0.525 | 0.233 |
| TPSB476*010T0350 | B | 47 | 10 | 85 | 7 | 125 | 4.7 | 8 | 350 | 1 | 0.493 | 0.444 | 0.197 |
| TPSB476*010T0500 | B | 47 | 10 | 85 | 7 | 125 | 4.7 | 8 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB476*010T0650 | B | 47 | 10 | 85 | 7 | 125 | 4.7 | 8 | 650 | 1 | 0.362 | 0.325 | 0.145 |
| TPSC476*010T0200 | C | 47 | 10 | 85 | 7 | 125 | 4.7 | 6 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSC476*010T0350 | C | 47 | 10 | 85 | 7 | 125 | 4.7 | 6 | 350 | 1 | 0.561 | 0.505 | 0.224 |
| TPSD476*010T0300V | D | 47 | 10 | 85 | 7 | 125 | 4.7 | 6 | 300 | 3 | 0.707 | 0.636 | 0.283 |
| TPSC686*010T0200 | C | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSC686*010T0300 | C | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSD686*010T0150V | D | 68 | 10 | 85 | 7 | 125 | 6.8 | 6 | 150 | 3 | 1.000 | 0.900 | 0.400 |
| TPSC107*010T0150 | C | 100 | 10 | 85 | 7 | 125 | 10 | 8 | 150 | 1 | 0.856 | 0.771 | 0.343 |
| TPSC107*010T0200 | C | 100 | 10 | 85 | 7 | 125 | 10 | 8 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSD107*010T0100V | D | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 100 | 3 | 1.225 | 1.102 | 0.490 |
| TPSD107*010T0125V | D | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 125 | 3 | 1.095 | 0.986 | 0.438 |
| TPSD107*010T0150V | D | 100 | 10 | 85 | 7 | 125 | 10 | 6 | 150 | 3 | 1.000 | 0.900 | 0.400 |
| TPSD157*010T0085V | D | 150 | 10 | 85 | 7 | 125 | 15 | 8 | 85 | 3 | 1.328 | 1.196 | 0.531 |
| TPSD157*010T0100V | D | 150 | 10 | 85 | 7 | 125 | 15 | 8 | 100 | 3 | 1.225 | 1.102 | 0.490 |
| TPSE157*010T0100V | E | 150 | 10 | 85 | 7 | 125 | 15 | 8 | 100 | 3 | 1.285 | 1.156 | 0.514 |
| TPSD227*010T0100V | D | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 100 | 3 | 1.225 | 1.102 | 0.490 |
| TPSD227*010T0150V | D | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 150 | 3 | 1.000 | 0.900 | 0.400 |
| TPSE227*010T0070V | E | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 70 | 3 | 1.535 | 1.382 | 0.614 |
| TPSE227*010T0100V | E | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 100 | 3 | 1.285 | 1.156 | 0.514 |
| TPSE227*010T0125V | E | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 125 | 3 | 1.149 | 1.034 | 0.460 |
| TPSE227*010T0150V | E | 220 | 10 | 85 | 7 | 125 | 22 | 8 | 150 | 3 | 1.049 | 0.944 | 0.420 |
| TPSE337*010T0050V | E | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 50 | 3 | 1.817 | 1.635 | 0.727 |
| TPSE337*010T0060V | E | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 60 | 3 | 1.658 | 1.492 | 0.663 |
| TPSE337*010T0100V | E | 330 | 10 | 85 | 7 | 125 | 33 | 8 | 100 | 3 | 1.285 | 1.156 | 0.514 |
| **16 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA105*016T6200 | A | 1.0 | 16 | 85 | 10 | 125 | 0.5 | 4 | 6200 | 1 | 0.110 | 0.099 | 0.044 |
| TPSA225*016T1800 | A | 2.2 | 16 | 85 | 10 | 125 | 0.5 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPSA225*016T3500 | A | 2.2 | 16 | 85 | 10 | 125 | 0.5 | 6 | 3500 | 1 | 0.146 | 0.132 | 0.059 |
| TPSA335*016T3500 | A | 3.3 | 16 | 85 | 10 | 125 | 0.5 | 6 | 3500 | 1 | 0.146 | 0.132 | 0.059 |
| TPSB335*016T2500 | B | 3.3 | 16 | 85 | 10 | 125 | 0.5 | 6 | 2500 | 1 | 0.184 | 0.166 | 0.074 |
| TPSA475*016T2000 | A | 4.7 | 16 | 85 | 10 | 125 | 0.8 | 6 | 2000 | 1 | 0.194 | 0.174 | 0.077 |
| TPSB475*016T0800 | B | 4.7 | 16 | 85 | 10 | 125 | 0.8 | 6 | 800 | 1 | 0.326 | 0.293 | 0.130 |
| TPSB475*016T1500 | B | 4.7 | 16 | 85 | 10 | 125 | 0.8 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSA685*016T1500 | A | 6.8 | 16 | 85 | 10 | 125 | 1.1 | 6 | 1500 | 1 | 0.224 | 0.201 | 0.089 |
| TPSB685*016T0600 | B | 6.8 | 16 | 85 | 10 | 125 | 1.1 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSB685*016T1200 | B | 6.8 | 16 | 85 | 10 | 125 | 1.1 | 6 | 1200 | 1 | 0.266 | 0.240 | 0.106 |
| TPSA106*016T1000 | A | 10 | 16 | 85 | 10 | 125 | 1.6 | 6 | 1000 | 1 | 0.274 | 0.246 | 0.110 |
| TPSB106*016T0500 | B | 10 | 16 | 85 | 10 | 125 | 1.6 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB106*016T0800 | B | 10 | 16 | 85 | 10 | 125 | 1.6 | 6 | 800 | 1 | 0.326 | 0.293 | 0.130 |
| TPSC106*016T0500 | C | 10 | 16 | 85 | 10 | 125 | 1.6 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSB156*016T0500 | B | 15 | 16 | 85 | 10 | 125 | 2.4 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB156*016T0800 | B | 15 | 16 | 85 | 10 | 125 | 2.4 | 6 | 800 | 1 | 0.326 | 0.293 | 0.130 |
| TPSC156*016T0300 | C | 15 | 16 | 85 | 10 | 125 | 2.4 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSC156*016T0700 | C | 15 | 16 | 85 | 10 | 125 | 2.4 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSB226*016T0400 | B | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 400 | 1 | 0.461 | 0.415 | 0.184 |
| TPSB226*016T0600 | B | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSC226*016T0300 | C | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSC226*016T0375 | C | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 375 | 1 | 0.542 | 0.487 | 0.217 |
| TPSD226*016T0500V | D | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 500 | 3 | 0.548 | 0.493 | 0.219 |
| TPSD226*016T0700V | D | 22 | 16 | 85 | 10 | 125 | 3.5 | 6 | 700 | 3 | 0.463 | 0.417 | 0.185 |
| TPSC336*016T0225 | C | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 225 | 1 | 0.699 | 0.629 | 0.280 |
| TPSC336*016T0300 | C | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSD336*016T0200V | D | 33 | 16 | 85 | 10 | 125 | 5.3 | 6 | 200 | 3 | 0.866 | 0.779 | 0.346 |
| TPSC476*016T0350 | C | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 350 | 1 | 0.561 | 0.505 | 0.224 |
| TPSD476*016T0200V | D | 47 | 16 | 85 | 10 | 125 | 7.5 | 6 | 200 | 3 | 0.866 | 0.779 | 0.346 |
| TPSC686*016T0200 | C | 68 | 16 | 85 | 10 | 125 | 10.9 | 6 | 200 | 1 | 0.742 | 0.667 | 0.297 |
| TPSD686*016T0150V | D | 68 | 16 | 85 | 10 | 125 | 10.9 | 6 | 150 | 3 | 1.000 | 0.900 | 0.400 |
| TPSD107*016T0100V | D | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 100 | 3 | 1.225 | 1.102 | 0.490 |
| TPSD107*016T0125V | D | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 125 | 3 | 1.095 | 0.986 | 0.438 |
| TPSD107*016T0150V | D | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 150 | 3 | 1.000 | 0.900 | 0.400 |
| TPSE107*016T0100V | E | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 100 | 3 | 1.285 | 1.156 | 0.514 |
| TPSE107*016T0125V | E | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 125 | 3 | 1.149 | 1.034 | 0.460 |
| TPSE107*016T0150V | E | 100 | 16 | 85 | 10 | 125 | 16 | 6 | 150 | 3 | 1.049 | 0.944 | 0.420 |
| TPSE157*016T0100V | E | 150 | 16 | 85 | 10 | 125 | 23 | 8 | 100 | 3 | 1.285 | 1.156 | 0.514 |

# TPS Automotive Range

## Low ESR - Automotive Product Range

### RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| **20 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA105*020T3000 | A | 1 | 20 | 85 | 13 | 125 | 0.5 | 4 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSA155*020T3000 | A | 1.5 | 20 | 85 | 13 | 125 | 0.5 | 6 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSA225*020T3000 | A | 2.2 | 20 | 85 | 13 | 125 | 0.5 | 6 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSB225*020T1700 | B | 2.2 | 20 | 85 | 13 | 125 | 0.5 | 6 | 1700 | 1 | 0.224 | 0.201 | 0.089 |
| TPSA335*020T2500 | A | 3.3 | 20 | 85 | 13 | 125 | 0.7 | 6 | 2500 | 1 | 0.173 | 0.156 | 0.069 |
| TPSB335*020T1300 | B | 3.3 | 20 | 85 | 13 | 125 | 0.7 | 6 | 1300 | 1 | 0.256 | 0.230 | 0.102 |
| TPSA475*020T1800 | A | 4.7 | 20 | 85 | 13 | 125 | 0.9 | 6 | 1800 | 1 | 0.204 | 0.184 | 0.082 |
| TPSB475*020T0750 | B | 4.7 | 20 | 85 | 13 | 125 | 0.9 | 6 | 750 | 1 | 0.337 | 0.303 | 0.135 |
| TPSB475*020T1000 | B | 4.7 | 20 | 85 | 13 | 125 | 0.9 | 6 | 1000 | 1 | 0.292 | 0.262 | 0.117 |
| TPSB685*020T0600 | B | 6.8 | 20 | 85 | 13 | 125 | 1.4 | 6 | 600 | 1 | 0.376 | 0.339 | 0.151 |
| TPSB685*020T1000 | B | 6.8 | 20 | 85 | 13 | 125 | 1.4 | 6 | 1000 | 1 | 0.292 | 0.262 | 0.117 |
| TPSC685*020T0700 | C | 6.8 | 20 | 85 | 13 | 125 | 1.4 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSB106*020T0500 | B | 10 | 20 | 85 | 13 | 125 | 2 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSB106*020T1000 | B | 10 | 20 | 85 | 13 | 125 | 2 | 6 | 1000 | 1 | 0.292 | 0.262 | 0.117 |
| TPSC106*020T0500 | C | 10 | 20 | 85 | 13 | 125 | 2 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSC106*020T0700 | C | 10 | 20 | 85 | 13 | 125 | 2 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSB156*020T0500 | B | 15 | 20 | 85 | 13 | 125 | 3 | 6 | 500 | 1 | 0.412 | 0.371 | 0.165 |
| TPSC156*020T0400 | C | 15 | 20 | 85 | 13 | 125 | 3 | 6 | 400 | 1 | 0.524 | 0.472 | 0.210 |
| TPSC156*020T0450 | C | 15 | 20 | 85 | 13 | 125 | 3 | 6 | 450 | 1 | 0.494 | 0.445 | 0.198 |
| TPSC226*020T0400 | C | 22 | 20 | 85 | 13 | 125 | 4.4 | 6 | 400 | 1 | 0.524 | 0.472 | 0.210 |
| TPSD226*020T0200V | D | 22 | 20 | 85 | 13 | 125 | 4.4 | 6 | 200 | 3 | 0.866 | 0.779 | 0.346 |
| TPSD226*020T0300V | D | 22 | 20 | 85 | 13 | 125 | 4.4 | 6 | 300 | 3 | 0.707 | 0.636 | 0.283 |
| TPSC336*020T0300 | C | 33 | 20 | 85 | 13 | 125 | 6.6 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSD336*020T0160V | D | 33 | 20 | 85 | 13 | 125 | 6.6 | 6 | 160 | 3 | 0.968 | 0.871 | 0.387 |
| TPSD336*020T0200V | D | 33 | 20 | 85 | 13 | 125 | 6.6 | 6 | 200 | 3 | 0.866 | 0.779 | 0.346 |
| TPSD476*020T0200V | D | 47 | 20 | 85 | 13 | 125 | 9.4 | 6 | 200 | 3 | 0.866 | 0.779 | 0.346 |
| TPSD686*020T0150V | D | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 150 | 3 | 1.000 | 0.900 | 0.400 |
| TPSD686*020T0200V | D | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 200 | 3 | 0.866 | 0.779 | 0.346 |
| TPSD686*020T0300V | D | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 300 | 3 | 0.707 | 0.636 | 0.283 |
| TPSE686*020T0125V | E | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 125 | 3 | 1.149 | 1.034 | 0.460 |
| TPSE686*020T0150V | E | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 150 | 3 | 1.049 | 0.944 | 0.420 |
| TPSE686*020T0200V | E | 68 | 20 | 85 | 13 | 125 | 13.6 | 6 | 200 | 3 | 0.908 | 0.817 | 0.363 |
| TPSE107*020T0100V | E | 100 | 20 | 85 | 13 | 125 | 20 | 6 | 100 | 3 | 1.285 | 1.156 | 0.514 |
| TPSE107*020T0150V | E | 100 | 20 | 85 | 13 | 125 | 20 | 6 | 150 | 3 | 1.049 | 0.944 | 0.420 |
| TPSE107*020T0200V | E | 100 | 20 | 85 | 13 | 125 | 20 | 6 | 200 | 3 | 0.908 | 0.817 | 0.363 |
| **25 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA474*025T7000 | A | 0.47 | 25 | 85 | 17 | 125 | 0.5 | 4 | 7000 | 1 | 0.104 | 0.093 | 0.041 |
| TPSA684*025T6000 | A | 0.68 | 25 | 85 | 17 | 125 | 0.5 | 4 | 6000 | 1 | 0.112 | 0.101 | 0.045 |
| TPSA105*025T4000 | A | 1.0 | 25 | 85 | 17 | 125 | 0.5 | 4 | 4000 | 1 | 0.137 | 0.123 | 0.055 |
| TPSA155*025T3000 | A | 1.5 | 25 | 85 | 17 | 125 | 0.5 | 6 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSA225*025T2500 | A | 2.2 | 25 | 85 | 17 | 125 | 0.6 | 6 | 2500 | 1 | 0.173 | 0.156 | 0.069 |
| TPSB225*025T0900 | B | 2.2 | 25 | 85 | 17 | 125 | 0.6 | 6 | 900 | 1 | 0.307 | 0.277 | 0.123 |
| TPSB225*025T1200 | B | 2.2 | 25 | 85 | 17 | 125 | 0.6 | 6 | 1200 | 1 | 0.266 | 0.240 | 0.106 |
| TPSB225*025T2500 | B | 2.2 | 25 | 85 | 17 | 125 | 0.6 | 6 | 2500 | 1 | 0.184 | 0.166 | 0.074 |
| TPSB335*025T0750 | B | 3.3 | 25 | 85 | 17 | 125 | 0.8 | 6 | 750 | 1 | 0.337 | 0.303 | 0.135 |
| TPSB335*025T1500 | B | 3.3 | 25 | 85 | 17 | 125 | 0.8 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSB335*025T2000 | B | 3.3 | 25 | 85 | 17 | 125 | 0.8 | 6 | 2000 | 1 | 0.206 | 0.186 | 0.082 |
| TPSB475*025T0700 | B | 4.7 | 25 | 85 | 17 | 125 | 1.2 | 6 | 700 | 1 | 0.348 | 0.314 | 0.139 |
| TPSB475*025T0900 | B | 4.7 | 25 | 85 | 17 | 125 | 1.2 | 6 | 900 | 1 | 0.307 | 0.277 | 0.123 |
| TPSC475*025T0700 | C | 4.7 | 25 | 85 | 17 | 125 | 1.2 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSB685*025T0700 | B | 6.8 | 25 | 85 | 17 | 125 | 1.7 | 6 | 700 | 1 | 0.348 | 0.314 | 0.139 |
| TPSC685*025T0500 | C | 6.8 | 25 | 85 | 17 | 125 | 1.7 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSC685*025T0600 | C | 6.8 | 25 | 85 | 17 | 125 | 1.7 | 6 | 600 | 1 | 0.428 | 0.385 | 0.171 |
| TPSC685*025T0700 | C | 6.8 | 25 | 85 | 17 | 125 | 1.7 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSC106*025T0300 | C | 10 | 25 | 85 | 17 | 125 | 2.5 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSC106*025T0500 | C | 10 | 25 | 85 | 17 | 125 | 2.5 | 6 | 500 | 1 | 0.469 | 0.422 | 0.188 |
| TPSD106*025T0500V | D | 10 | 25 | 85 | 17 | 125 | 2.5 | 6 | 500 | 3 | 0.548 | 0.493 | 0.219 |
| TPSC156*025T0220 | C | 15 | 25 | 85 | 17 | 125 | 3.8 | 6 | 220 | 1 | 0.707 | 0.636 | 0.283 |
| TPSC156*025T0300 | C | 15 | 25 | 85 | 17 | 125 | 3.8 | 6 | 300 | 1 | 0.606 | 0.545 | 0.242 |
| TPSD156*025T0300V | D | 15 | 25 | 85 | 17 | 125 | 3.8 | 6 | 300 | 3 | 0.707 | 0.636 | 0.283 |
| TPSC226*025T0275 | C | 22 | 25 | 85 | 17 | 125 | 5.5 | 6 | 275 | 1 | 0.632 | 0.569 | 0.253 |
| TPSC226*025T0400 | C | 22 | 25 | 85 | 17 | 125 | 5.5 | 6 | 400 | 1 | 0.524 | 0.472 | 0.210 |
| TPSD226*025T0200V | D | 22 | 25 | 85 | 17 | 125 | 5.5 | 6 | 200 | 3 | 0.866 | 0.779 | 0.346 |
| TPSD226*025T0300V | D | 22 | 25 | 85 | 17 | 125 | 5.5 | 6 | 300 | 3 | 0.707 | 0.636 | 0.283 |
| TPSD336*025T0200V | D | 33 | 25 | 85 | 17 | 125 | 8.3 | 6 | 200 | 3 | 0.866 | 0.779 | 0.346 |
| TPSD336*025T0300V | D | 33 | 25 | 85 | 17 | 125 | 8.3 | 6 | 300 | 3 | 0.707 | 0.636 | 0.283 |
| TPSD476*025T0125V | D | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 125 | 3 | 1.095 | 0.986 | 0.438 |
| TPSD476*025T0150V | D | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 150 | 3 | 1.000 | 0.900 | 0.400 |
| TPSD476*025T0250V | D | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 250 | 3 | 0.775 | 0.697 | 0.310 |
| TPSE476*025T0125V | E | 47 | 25 | 85 | 17 | 125 | 11.8 | 6 | 125 | 3 | 1.149 | 1.034 | 0.460 |

# TPS Automotive Range

## Low ESR - Automotive Product Range

### RATINGS & PART NUMBER REFERENCE

| AVX Part No. | Case Size | Capacitance (µF) | Rated Voltage (V) | Rated Temperature (°C) | Category Voltage (V) | Category Temperature (°C) | DCL (µA) Max. | DF % Max. | ESR Max. (mΩ) @ 100kHz | MSL | 100kHz RMS Current (A) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 25°C | 85°C | 125°C |
| **35 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA334*035T6000 | A | 0.33 | 35 | 85 | 23 | 125 | 0.5 | 4 | 6000 | 1 | 0.112 | 0.101 | 0.045 |
| TPSA474*035T6000 | A | 0.47 | 35 | 85 | 23 | 125 | 0.5 | 4 | 6000 | 1 | 0.112 | 0.101 | 0.045 |
| TPSA684*035T6000 | A | 0.68 | 35 | 85 | 23 | 125 | 0.5 | 4 | 6000 | 1 | 0.112 | 0.101 | 0.045 |
| TPSA105*035T3000 | A | 1 | 35 | 85 | 23 | 125 | 0.5 | 4 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSB105*035T2000 | B | 1 | 35 | 85 | 23 | 125 | 0.5 | 4 | 2000 | 1 | 0.206 | 0.186 | 0.082 |
| TPSA155*035T3000 | A | 1.5 | 35 | 85 | 23 | 125 | 0.5 | 6 | 3000 | 1 | 0.158 | 0.142 | 0.063 |
| TPSB155*035T2500 | B | 1.5 | 35 | 85 | 23 | 125 | 0.5 | 6 | 2500 | 1 | 0.184 | 0.166 | 0.074 |
| TPSB225*035T0750 | B | 2.2 | 35 | 85 | 23 | 125 | 0.8 | 6 | 750 | 1 | 0.337 | 0.303 | 0.135 |
| TPSB225*035T1500 | B | 2.2 | 35 | 85 | 23 | 125 | 0.8 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSB225*035T2000 | B | 2.2 | 35 | 85 | 23 | 125 | 0.8 | 6 | 2000 | 1 | 0.206 | 0.186 | 0.082 |
| TPSC225*035T1000 | C | 2.2 | 35 | 85 | 23 | 125 | 0.8 | 6 | 1000 | 1 | 0.332 | 0.298 | 0.133 |
| TPSB335*035T1000 | B | 3.3 | 35 | 85 | 23 | 125 | 1.2 | 6 | 1000 | 1 | 0.292 | 0.262 | 0.117 |
| TPSC335*035T0700 | C | 3.3 | 35 | 85 | 23 | 125 | 1.2 | 6 | 700 | 1 | 0.396 | 0.357 | 0.159 |
| TPSB475*035T0700 | B | 4.7 | 35 | 85 | 23 | 125 | 1.6 | 6 | 700 | 1 | 0.348 | 0.314 | 0.139 |
| TPSB475*035T1500 | B | 4.7 | 35 | 85 | 23 | 125 | 1.6 | 6 | 1500 | 1 | 0.238 | 0.214 | 0.095 |
| TPSC475*035T0600 | C | 4.7 | 35 | 85 | 23 | 125 | 1.6 | 6 | 600 | 1 | 0.428 | 0.385 | 0.171 |
| TPSD475*035T0700V | D | 4.7 | 35 | 85 | 23 | 125 | 1.6 | 6 | 700 | 3 | 0.463 | 0.417 | 0.185 |
| TPSC685*035T0350 | C | 6.8 | 35 | 85 | 23 | 125 | 2.4 | 6 | 350 | 1 | 0.561 | 0.505 | 0.224 |
| TPSD685*035T0400V | D | 6.8 | 35 | 85 | 23 | 125 | 2.4 | 6 | 400 | 3 | 0.612 | 0.551 | 0.245 |
| TPSD685*035T0500V | D | 6.8 | 35 | 85 | 23 | 125 | 2.4 | 6 | 500 | 3 | 0.548 | 0.493 | 0.219 |
| TPSC106*035T0600 | C | 10 | 35 | 85 | 23 | 125 | 3.5 | 6 | 600 | 1 | 0.428 | 0.385 | 0.171 |
| TPSD106*035T0300V | D | 10 | 35 | 85 | 23 | 125 | 3.5 | 6 | 300 | 3 | 0.707 | 0.636 | 0.283 |
| TPSD156*035T0300V | D | 15 | 35 | 85 | 23 | 125 | 5.3 | 6 | 300 | 3 | 0.707 | 0.636 | 0.283 |
| TPSD226*035T0200V | D | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 200 | 3 | 0.866 | 0.779 | 0.346 |
| TPSD226*035T0300V | D | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 300 | 3 | 0.707 | 0.636 | 0.283 |
| TPSD226*035T0400V | D | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 400 | 3 | 0.612 | 0.551 | 0.245 |
| TPSE226*035T0200V | E | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 200 | 3 | 0.908 | 0.817 | 0.363 |
| TPSE226*035T0300V | E | 22 | 35 | 85 | 23 | 125 | 7.7 | 6 | 300 | 3 | 0.742 | 0.667 | 0.297 |
| TPSE336*035T0250V | E | 33 | 35 | 85 | 23 | 125 | 11.6 | 6 | 250 | 3 | 0.812 | 0.731 | 0.325 |
| TPSE336*035T0300V | E | 33 | 35 | 85 | 23 | 125 | 11.6 | 6 | 300 | 3 | 0.742 | 0.667 | 0.297 |
| **50 Volt @ 85°C** | | | | | | | | | | | | | |
| TPSA224*050T7000 | A | 0.22 | 50 | 85 | 33 | 125 | 0.5 | 4 | 7000 | 1 | 0.104 | 0.093 | 0.041 |
| TPSA334*050T7000 | A | 0.33 | 50 | 85 | 33 | 125 | 0.5 | 4 | 7000 | 1 | 0.104 | 0.093 | 0.041 |
| TPSA474*050T6500 | A | 0.47 | 50 | 85 | 33 | 125 | 0.5 | 4 | 6500 | 1 | 0.107 | 0.097 | 0.043 |
| TPSB474*050T6000 | B | 0.47 | 50 | 85 | 33 | 125 | 0.5 | 4 | 6000 | 1 | 0.119 | 0.107 | 0.048 |
| TPSB684*050T4000 | B | 0.68 | 50 | 85 | 33 | 125 | 0.5 | 4 | 4000 | 1 | 0.146 | 0.131 | 0.058 |
| TPSB105*050T3000 | B | 1 | 50 | 85 | 33 | 125 | 0.5 | 6 | 3000 | 1 | 0.168 | 0.151 | 0.067 |
| TPSC105*050T2500 | C | 1 | 50 | 85 | 33 | 125 | 0.5 | 4 | 2500 | 1 | 0.210 | 0.189 | 0.084 |
| TPSC155*050T1500 | C | 1.5 | 50 | 85 | 33 | 125 | 0.8 | 6 | 1500 | 1 | 0.271 | 0.244 | 0.108 |
| TPSC155*050T2000 | C | 1.5 | 50 | 85 | 33 | 125 | 0.8 | 6 | 2000 | 1 | 0.235 | 0.211 | 0.094 |
| TPSC225*050T1500 | C | 2.2 | 50 | 85 | 33 | 125 | 1.1 | 8 | 1500 | 1 | 0.271 | 0.244 | 0.108 |
| TPSD225*050T1200V | D | 2.2 | 50 | 85 | 33 | 125 | 1.1 | 6 | 1200 | 3 | 0.354 | 0.318 | 0.141 |
| TPSC335*050T1000 | C | 3.3 | 50 | 85 | 33 | 125 | 1.6 | 6 | 1000 | 1 | 0.332 | 0.298 | 0.133 |
| TPSD335*050T0800V | D | 3.3 | 50 | 85 | 33 | 125 | 1.7 | 6 | 800 | 3 | 0.433 | 0.390 | 0.173 |
| TPSC475*050T0800 | C | 4.7 | 50 | 85 | 33 | 125 | 2.4 | 6 | 800 | 1 | 0.371 | 0.334 | 0.148 |
| TPSD475*050T0250V | D | 4.7 | 50 | 85 | 33 | 125 | 2.4 | 6 | 250 | 1 | 0.775 | 0.697 | 0.310 |
| TPSD475*050T0500V | D | 4.7 | 50 | 85 | 33 | 125 | 2.4 | 6 | 500 | 3 | 0.548 | 0.493 | 0.219 |
| TPSD475*050T0700V | D | 4.7 | 50 | 85 | 33 | 125 | 2.4 | 6 | 700 | 3 | 0.463 | 0.417 | 0.185 |
| TPSD685*050T0500V | D | 6.8 | 50 | 85 | 33 | 125 | 3.4 | 6 | 500 | 3 | 0.548 | 0.493 | 0.219 |
| TPSD685*050T0600V | D | 6.8 | 50 | 85 | 33 | 125 | 3.4 | 6 | 600 | 3 | 0.500 | 0.450 | 0.200 |
| TPSD106*050T0500V | D | 10 | 50 | 85 | 33 | 125 | 5 | 6 | 500 | 3 | 0.548 | 0.493 | 0.219 |
| TPSE106*050T0250V | E | 10 | 50 | 85 | 33 | 125 | 5 | 6 | 250 | 3 | 0.812 | 0.731 | 0.325 |
| TPSE106*050T0300V | E | 10 | 50 | 85 | 33 | 125 | 5 | 6 | 300 | 3 | 0.742 | 0.667 | 0.297 |
| TPSE106*050T0400V | E | 10 | 50 | 85 | 33 | 125 | 5 | 6 | 400 | 3 | 0.642 | 0.578 | 0.257 |
| TPSE106*050T0500V | E | 10 | 50 | 85 | 33 | 125 | 5 | 6 | 500 | 3 | 0.574 | 0.517 | 0.230 |
| TPSE156*050T0250V | E | 15 | 50 | 85 | 33 | 125 | 7.5 | 6 | 250 | 3 | 0.812 | 0.731 | 0.325 |

Moisture Sensitivity Level (MSL) is defined according to J-STD-020

*Please use "U" instead of "T" in the suffix letter for 13'' reel packaging

Please use specific PN for automotive version – see "HOW TO ORDER".

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

The EIA & CECC standards for low ESR Solid Tantalum Capacitors allow an ESR movement to 1.25 times catalogue limit post mounting.

For typical weight and composition see page 216.

**NOTE: AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.**

# TPS Automotive Range

## Low ESR - Automotive Product Range

### QUALIFICATION TABLE

<table>
<tr><th rowspan="2">TEST</th><th colspan="9">TPS automotive series (Temperature range -55ºC to +125ºC)</th></tr>
<tr><th colspan="3">Condition</th><th colspan="6">Characteristics</th></tr>
<tr><td rowspan="5">Endurance</td><td colspan="3" rowspan="5">Determine after application of rated voltage for 2000 +48/-0 hours at 85±2ºC and then leaving 1-2 hours at room temperature. Also determine of 125ºC temperature, category voltage for 2000 +48/-0 hours and then leaving 1-2 hours at room temperature. Power supply impedance to be ≤0.1Ω/V.</td><td>Visual examination</td><td colspan="5">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="5">1.25 x initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="5">within ±10% of initial value</td></tr>
<tr><td>DF</td><td colspan="5">initial limit</td></tr>
<tr><td>ESR</td><td colspan="5">1.25 x initial limit</td></tr>
<tr><td rowspan="5">Storage Life</td><td colspan="3" rowspan="5">125ºC, 0V, 2000h</td><td>Visual examination</td><td colspan="5">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="5">1.25 x initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="5">within ±10% of initial value</td></tr>
<tr><td>DF</td><td colspan="5">initial limit</td></tr>
<tr><td>ESR</td><td colspan="5">1.25 x initial limit</td></tr>
<tr><td rowspan="5">Humidity</td><td colspan="3" rowspan="5">Determine after storage without applied voltage at 65±2ºC and 95±2% relative humidity for 500 hours and then recovery 1-2 hours at room temperature.</td><td>Visual examination</td><td colspan="5">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="5">1.5 x initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="5">within ±10% of initial value</td></tr>
<tr><td>DF</td><td colspan="5">1.2 x initial limit</td></tr>
<tr><td>ESR</td><td colspan="5">1.25 x initial limit</td></tr>
<tr><td rowspan="5">Biased Humidity</td><td colspan="3" rowspan="5">Determine after leaving for 1000 hours at 85±2ºC, 85% relative humidity and rated voltage and then recovery 1-2 hours at room temperature.</td><td>Visual examination</td><td colspan="5">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="5">2 x initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="5">within ±10% of initial value</td></tr>
<tr><td>DF</td><td colspan="5">1.2 x initial limit</td></tr>
<tr><td>ESR</td><td colspan="5">1.25 x initial limit</td></tr>
<tr><td rowspan="8">Temperature Stability</td><td>Step</td><td>Temperature°C</td><td>Duration(min)</td><td></td><td>+20ºC</td><td>-55ºC</td><td>+20ºC</td><td>+85ºC</td><td>+125ºC</td><td>+20ºC</td></tr>
<tr><td>1</td><td>+20±2</td><td>15</td><td>DCL</td><td>IL*</td><td>n/a</td><td>IL*</td><td>10 x IL*</td><td>12.5 x IL*</td><td>IL*</td></tr>
<tr><td>2</td><td>-55+0/-3</td><td>15</td><td>ΔC/C</td><td>n/a</td><td>+0/-10%</td><td>±5%</td><td>+10/-0%</td><td>+12/-0%</td><td>±5%</td></tr>
<tr><td>3</td><td>+20±2</td><td>15</td><td>DF</td><td>IL*</td><td>1.5 x IL*</td><td>IL*</td><td>1.5 x IL*</td><td>2 x IL*</td><td>IL*</td></tr>
<tr><td>4</td><td>+85+3/-0</td><td>15</td><td rowspan="3">ESR</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">2.5 x IL*</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">1.25 x IL*</td><td rowspan="3">1.25 x IL*</td></tr>
<tr><td>5</td><td>+125+3/-0</td><td>15</td></tr>
<tr><td>6</td><td>+20±2</td><td>15</td></tr>
<tr><td rowspan="5">Surge Voltage</td><td colspan="3" rowspan="5">Test temperature: 125ºC+3/0ºC<br>Test voltage: Category voltage at 125ºC<br>Surge voltage: 1.3 x category voltage at 125ºC<br>Series protection resistance 1000±100Ω<br>Discharge resistance: 1000Ω<br>Number of cycles: 1000x<br>Cycle duration: 6 min; 30 sec charge,<br>5 min 30 sec discharge</td><td>Visual examination</td><td colspan="5">no visible damage</td></tr>
<tr><td>DCL</td><td colspan="5">initial limit</td></tr>
<tr><td>ΔC/C</td><td colspan="5">within ±5% of initial value</td></tr>
<tr><td>DF</td><td colspan="5">initial limit</td></tr>
<tr><td>ESR</td><td colspan="5">1.25 x initial limit</td></tr>
</table>

*Initial Limit

# Mouser Electronics

Authorized Distributor

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AVX:

TPSE226M035R0300 TPSE227K010R0050 TPSE227K010R0100 TPSE227M010R0050 TPSE336K025R0300
TPSE336M035R0100 TPSE337K010R0050 TPSE337M010R0050 TPSE337M010R0100 TPSE476K035R0250
TPSE477K006R0045 TPSE477K010R0045 TPSE477K010R0100 TPSE477M010R0045 TPSE477M010R0100
TPSE686K025R0200 TPSE686M020R0125 TPSE686M020R0150 TPSE686M025R0125 TPSV227M016R0050
TPSV227M016R0075 TPSV337M010R0100 TPSV687K006R0035 TPSW336K016R0175 TPSW476K010R0125
TPSW476K010R0150 TPSW686K006R0125 TPSY157K010R0100 TPSY686K016R0200 TPSD107M020R0085
TPSD156K035R0100 TPSD156M025R0100 TPSD156M035R0300 TPSD157K006R0050 TPSD157K010R0085
TPSD157M006R0050 TPSD157M016R0100 TPSD157M016R0125 TPSD157M016R0150 TPSD226K025R0100
TPSD226M025R0100 TPSD227K010R0150 TPSD227M010R0050 TPSD336K035R0300 TPSD336M025R0300
TPSD336M035R0300 TPSD337K006R0045 TPSD337K010R0100 TPSD337K010R0150 TPSD475M050R0700
TPSD686M010R0100 TPSD686M016R0070 TPSE106K050R0400 TPSE107K016R0100 TPSE107K016R0150
TPSE107K020R0150 TPSE107M016R0055 TPSE226K035R0300 TPSA105K035R3000 TPSA105M035R3000
TPSA106K010R0900 TPSA106K010R1800 TPSA226M010R0900 TPSA335M016R3500 TPSA475K020R1800
TPSA476M004R0500 TPSA684K035R6000 TPSB106M016R0800 TPSB106M020R1000 TPSB156K016R0800
TPSB225K025R2500 TPSB225K035R2000 TPSB226K016R0600 TPSB226M016R0600 TPSB476K010R0650
TPSB476M010R0500 TPSC107K006R0150 TPSC107M010R0100 TPSC226K016R0375 TPSC227K006R0070
TPSC227M006R0250 TPSC335M035R0700 TPSC336M016R0300 TPSC475M035R0600 TPSC476K016R0350
TPSC476M010R0350 TPSC685M025R0600 TPSD106M035R0125 TPSD107K016R0125 TPSD107M010R0050
TPSD107M010R0080 TPSD107M010R0100 TPSD107M016R0060 TPSA156M006R1500 TPSA225K010R1800
TPSA225K016R1800 TPSA225M010R1800 TPSA335M020R2500 TPSA336K006R0600 TPSA475M020R1800