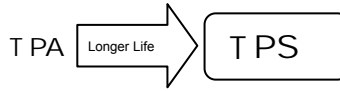




TPS Series RADIAL LEAD TYPE, LONG LIFE

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

- Operating with wide temperature range -55~+105°C
- Long life assurance
- Load life of 5000 hours
- RoHS & REACH compliant, Halogen-free



SPECIFICATIONS

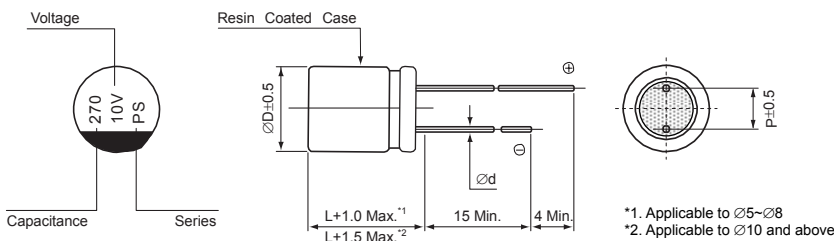
Items	Characteristics								
Operation Temperature Range	-55 ~ +105°C								
Voltage Range	2.5 ~ 16V								
Capacitance Range	100 ~ 1500μF								
Capacitance Tolerance	±20% at 120Hz, 20°C								
Leakage Current (*1)	≤Specified value (after 2 minutes application of rated voltage at 20°C).								
Dissipation Factor (tan δ)	≤Specified value at 120Hz, 20°C.								
ESR (*2)	≤Specified value at 100KHz, 20°C.								
Stability at Low Temperature	Measurement frequency : 100KHz <table border="1"> <tr> <td>Impedance Ratio ZT/Z20 (max.)</td> <td>Z(+105°C)/Z(20°C)</td> <td>≤1.25</td> </tr> <tr> <td></td> <td>Z(-55°C)/Z(20°C)</td> <td>≤1.25</td> </tr> </table>	Impedance Ratio ZT/Z20 (max.)	Z(+105°C)/Z(20°C)	≤1.25		Z(-55°C)/Z(20°C)	≤1.25		
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	Z(-55°C)/Z(20°C)	≤1.25							
Damp Heat (Steady State)	When the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 60°C, 90% RH, they meet the characteristics listed below. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value (*3)</td> </tr> <tr> <td>Dissipation Factor</td> <td>150% or less of initial specified value</td> </tr> <tr> <td>ESR (*2)</td> <td>150% or less of initial specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance Change	Within ±20% of initial value (*3)	Dissipation Factor	150% or less of initial specified value	ESR (*2)	150% or less of initial specified value	Leakage Current	Initial specified value or less
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Dissipation Factor	150% or less of initial specified value								
ESR (*2)	150% or less of initial specified value								
Leakage Current	Initial specified value or less								
Endurance	After 5000 hours application of the rated voltage at 105°C, they meet the characteristics listed below. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value (*3)</td> </tr> <tr> <td>Dissipation Factor</td> <td>150% or less of initial specified value</td> </tr> <tr> <td>ESR (*2)</td> <td>150% or less of initial specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance Change	Within ±20% of initial value (*3)	Dissipation Factor	150% or less of initial specified value	ESR (*2)	150% or less of initial specified value	Leakage Current	Initial specified value or less
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Leakage Current	Initial specified value or less								
Resistance to Soldering Heat	After reflow soldering and restored at room temperature, they meet the characteristics listed below. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±10% of initial value (*3)</td> </tr> <tr> <td>Dissipation Factor</td> <td>130% or less of initial specified value</td> </tr> <tr> <td>ESR (*2)</td> <td>130% or less of initial specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Initial specified value or less</td> </tr> </table>	Capacitance Change	Within ±10% of initial value (*3)	Dissipation Factor	130% or less of initial specified value	ESR (*2)	130% or less of initial specified value	Leakage Current	Initial specified value or less
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Dissipation Factor	130% or less of initial specified value								
ESR (*2)	130% or less of initial specified value								
Leakage Current	Initial specified value or less								
Marking	Red print on the case top.								

(*1) If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.

(*2) Should be measured at both of the terminal ends closest to the capacitor body.

(*3) The value before test of examination of resistance to soldering.

DRAWING (Unit: mm)



TPS Series

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

DIMENSIONS (Unit: mm)

∅D × L	6.3 × 9	6.3 × 10.5	8 × 7	8 × 9	8 × 12	10 × 13
P	2.5	2.5	3.5	3.5	3.5	5.0
∅d	0.6	0.6	0.6	0.6	0.6	0.6
L	9.0	10.5	7.0	9.0	12.0	13.0

DIMENSIONS & STANDARD RATINGS

Cap. (μF)	Parameter	2.5					4				
		Case size ∅D×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz	Case size ∅D×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz
270	277						6.3 × 9	0.08	216	8	4800
330	337	6.3 × 9	0.08	165	8	4800					
560	567						8 × 7 (8 × 9)	0.08 (0.08)	448 (448)	15 (7)	3900 (5200)
680	687	8 × 7	0.08	340	15	3900	8 × 12	0.08	544	7	5800
820	827	6.3 × 9 (8 × 9) (8 × 12)	0.08 (0.08) (0.08)	410 (410) (410)	8 (7) (7)	4800 (5200) (5800)					
1200	128						10 × 13	0.08	960	8	5500
1500	158	10 × 13	0.08	750	8	5500					

Cap. (μF)	Parameter	6.3					10				
		Case size ∅D×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz	Case size ∅D×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz
150	157						6.3 × 10.5	0.08	300	20	3000
270	277						8 × 12	0.08	540	8	4900
330	337	6.3 × 10.5	0.08	416	20	3000					
390	397	8 × 7	0.08	491	15	3900					
470	477	8 × 12	0.08	592	7	5500	10 × 13	0.08	940	8	5500
560	567	6.3 × 9 (8 × 9)	0.08 (0.08)	706 (706)	9 (8)	4300 (5000)					
820	827	10 × 13	0.08	1033	8	5500					

Cap. (μF)	Parameter	16				
		Case size ∅D×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz
100	107	6.3 × 10.5	0.08	320	24	2800
270	277	8 × 12	0.08	864	9	4500
330	337	10 × 13	0.08	1056	9	4700
470	477	10 × 13	0.08	1504	9	4700

How to order

<u>TPS</u>	<u>A</u>	<u>108</u>	<u>M</u>	<u>0016</u>	<u>B</u>	<u>0025</u>
↓	↓	↓	↓	↓	↓	↓
<u>Type</u>	<u>Material Code</u>	<u>Capacitance code</u>	<u>Tolerance</u>	<u>Rated DC Voltage</u>	<u>Package</u>	<u>Pitch size</u>
TPS	A: Polymer electrolytic cap	pF Code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow) 107 = 100uF 108 = 1000uF	M: +/-20%	Code 0006 = 6.3VDC 0007 = 7.5VDC 0010 = 10VDC 0012 = 12VDC 0016 = 16VDC	B: Bulk	0020: pitch size 2.0mm 0025: pitch size 2.5mm 0035: pitch size 3.5mm 0050: pitch size 5.0mm