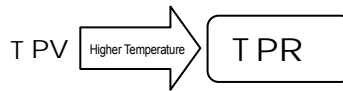


T PR Series RADIAL LEAD TYPE, HIGH RELIABILITY

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

- Operating with wide temperature range -55~+125°C
- High reliability, low ESR, high ripple current
- Load life of 3000 hours
- RoHS & REACH compliant, Halogen-free



SPECIFICATIONS

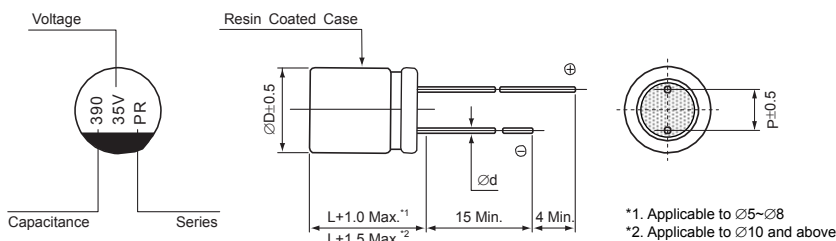
Items	Characteristics								
Operation Temperature Range	-55 ~ +125°C								
Voltage Range	6.3 ~ 50V								
Capacitance Range	22 ~ 1000μF								
Capacitance Tolerance	±20% at 120Hz, 20°C								
Leakage Current (*1)	≤Specified value (after 2 minutes application of rated voltage at 20°C).								
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(+125°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(+125°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 3000 hours application of the rated voltage at 125°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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Dissipation Factor	150% or less of initial specified value								
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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)



TPR Series

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

DIMENSIONS (Unit: mm)

ØD × L	5 × 8	8 × 8	8 × 9	8 × 12	10 × 13
P	2.0	3.5	3.5	3.5	5.0
Ød	0.5	0.6	0.6	0.6	0.6
L	8.0	9.0	9.0	12.0	13.0

DIMENSIONS & STANDARD RATINGS

WV (V)		6.3						16					
Cap. (µF)	Parameter	Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)	
						≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾					≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾
100	107	5 × 8	0.12	126	18	1900	730	5 × 8	0.12	320	13	2000	770
150	157							8 × 9	0.12	480	26	2100	810
220	227							8 × 12	0.12	704	25	2400	930
330	337	5 × 8	0.12	415	14	2300	880	8 × 8	0.12	1056	13	4700	1570
390	397							10 × 13	0.12	1248	23	2900	1130
1000	108							10 × 13	0.12	3200	12	4500	1730

WV (V)		20						25					
Cap. (µF)	Parameter	Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)	
						≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾					≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾
82	826							8 × 9	0.12	410	28	2000	780
120	127	8 × 9	0.12	480	27	2000	800	8 × 12	0.12	600	27	2300	890
150	157	8 × 12	0.12	600	26	2300	910						
180	187							10 × 13	0.12	900	25	2800	1080
270	277	10 × 13	0.12	1080	24	2800	1110						

WV (V)		35						50					
Cap. (µF)	Parameter	Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)	
						≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾					≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾
22	226							8 × 9	0.12	220	35	1800	700
27	276							8 × 12	0.12	270	33	2000	810
39	396	8 × 9	0.12	273	33	1800	720						
47	476							10 × 13	0.12	470	29	2600	1020
56	566	8 × 12	0.12	392	31	2100	830						
100	107	10 × 13	0.12	700	28	2700	1040						

How to order

<u>TPR</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>
TPR	A: Polymer electrolytic cap	pF Code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow) 107 = 100µF 108 = 1000µF	M: +/-20%	Code 0006 = 6.3VDC 0007 = 7.5VDC 0010 = 10VDC 0012 = 12VDC 0016 = 16VDC 0050 = 50VDC	B: Bulk	0020: pitch size 2.0mm 0025: pitch size 2.5mm 0035: pitch size 3.5mm 0050: pitch size 5.0mm