

PT series

- Endurance: +125°C 2,000 hours
- Long Life, High Temperature Resistance
- Recommended Applications: Lamps Power, LED Power, Service Equipment
- RoHS Compliant and lead-free



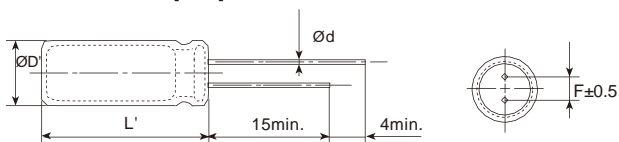
■ SPECIFICATIONS

Items	Characteristics							
Category Temperature Range	-55~+125°C							
Rated Working Voltage Range	6.3~25 V _{dc}							
Nominal Capacitance Range	22~5600μF							
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)							
DC Leakage Current	I ≤ 0.2CV or 500μA, whichever is greater. Where, I: Max. leakage current (μA), C: Nominal capacitance (μF), V: Rated voltage (V) (at 20°C after 2 minutes)							
Dissipation Factor (tan δ)	Rated Voltage (V _{dc})	6.3	6.8	7.5	10	16	25	
	tan δ (max.)	0.08				0.12		(at 20°C, 120Hz)
ESR(100kHz, 20°C)	Value in characteristics table							
Temperature Characteristic (Impedance Ratio at 100kHz)	Z(+125°C)/Z(+20°C) 1.25 Z(-55°C)/Z(+20°C) 1.25							
Endurance	After applying rated voltage for 2,000 hours at 125°C, the capacitors shall meet the following requirements.							
	Appearance	No significant damage						
	Capacitance Change	±20% of the initial value						
	D.F. (tan δ)	200% of the initial specified value						
	ESR	200% of the initial specified value						
Humidity Test	After subjecting to 90~95% RH for 2,000 hours at 60°C without voltage applied, the capacitors shall meet the requirement as surge test.							
	After subjecting to 1,000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds, the capacitors shall meet the following requirements.							
	Appearance	No significant damage						
	Capacitance Change	±20% of the initial value						
	D.F. (tan δ)	150% of the initial specified value						
Surge Test	ESR	150% of the initial specified value						
	Leakage Current	The initial specified value						

Conductive Polymer Radial Type

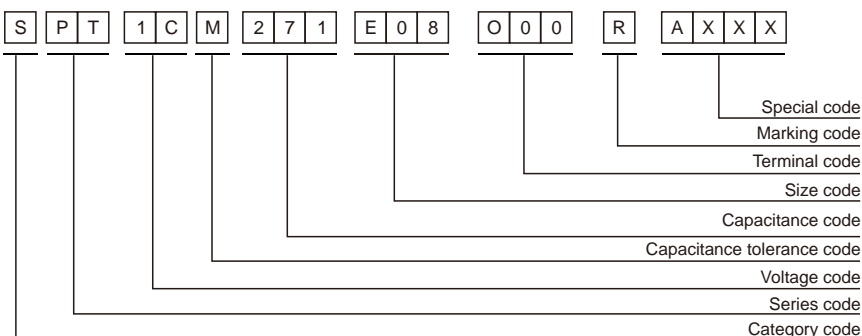
*Note: If any doubt arises, measure the leakage current after the following voltage treatment.
Voltage treatment: DC rated voltage is applied to the capacitors for 120 minutes at 105°C.

■ DIMENSIONS[mm]



øD	5	5.5	6.3	8	10
ød	0.5	0.5	0.5	0.6	0.6
F	2.0	2.5	2.5	3.5	5.0
øD'	øD-0.1~+0.5				
L'	L+1.0max.		L-0.5~-+1		

■ PART NUMBERING SYSTEM



PT series

■ STANDARD RATINGS

VDC (SV)	Cap (μF)	Size DxL(mm)	ESR (mΩ, 20°C, 100kHz) (max.)	Rated ripple current (mArms/125°C, 100kHz)	Leakage Current (μA)(max.)	Part Number
6.3 (7.2)	220	5x7	30	1000	500	SPT0JM221D07O00RAXXX
	270	5x7	30	1100	500	SPT0JM271D07O00RAXXX
	330	5x8	30	1200	500	SPT0JM331D08O00RAXXX
		6.3x5	37	900	500	SPT0JM331E05O00RAXXX
	390	6.3x8	22	1200	500	SPT0JM331E08O00RAXXX
		5x9	30	1200	500	SPT0JM391D09O00RAXXX
	470	5x10	30	1200	592	SPT0JM471D10O00RAXXX
		5.5x9	30	1200	592	SPT0JM471B09O00RAXXX
		6.3x7	30	1100	592	SPT0JM471E07O00RAXXX
		6.3x8	22	1300	592	SPT0JM471E08O00RAXXX
	560	6.3x7	30	1200	706	SPT0JM561E07O00RAXXX
		6.3x8	30	1400	706	SPT0JM561E08O00RAXXX
		5.5x9	30	1200	706	SPT0JM561B09O00RAXXX
	680	6.3x9	30	1500	857	SPT0JM681E09O00RAXXX
		5.5x9	30	1400	857	SPT0JM681B09O00RAXXX
		8x9	30	1300	857	SPT0JM681F09O00RAXXX
	820	6.3x9	30	1500	1033	SPT0JM821E09O00RAXXX
		8x9	22	1400	1033	SPT0JM821F09O00RAXXX
		6.3x10	15	1500	1260	SPT0JM102E10O00RAXXX
	1000	8x9	18	1400	1260	SPT0JM102F09O00RAXXX
8x11		15	1500	1260	SPT0JM102F11O00RAXXX	
1200	8x11	15	1500	1512	SPT0JM122F11O00RAXXX	
1500	8x11	15	1600	1890	SPT0JM152F11O00RAXXX	
1800	10x12	15	1600	1890	SPT0JM152G12O00RAXXX	
2200	10x10	15	1600	2268	SPT0JM182G10O00RAXXX	
3300	8x14	15	1700	2772	SPT0JM222F14O00RAXXX	
	10x12	15	1700	2772	SPT0JM222G12O00RAXXX	
4700	10x14	15	1700	4158	SPT0JM332G14O00RAXXX	
5600	10x17	15	1800	5000	SPT0JM472G17O00RAXXX	
5600	10x18	15	1800	5000	SPT0JM562G18O00RAXXX	
6.8 (7.8)	220	5x7	28	900	500	SPT0CM221D07O00RAXXX
	270	5x7	28	1000	500	SPT0CM271D07O00RAXXX
	330	5x8	28	1100	500	SPT0CM331D08O00RAXXX
		6.3x5	35	900	500	SPT0CM331E05O00RAXXX
	470	5x9	28	1200	639	SPT0CM471D09O00RAXXX
		6.3x7	28	1100	639	SPT0CM471E07O00RAXXX
	560	6.3x8	28	1300	762	SPT0CM561E08O00RAXXX
	680	6.3x9	28	1400	925	SPT0CM681E09O00RAXXX
	820	6.3x9	28	1400	1115	SPT0CM821E09O00RAXXX
	1000	6.3x11	17	1500	1360	SPT0CM102F11O00RAXXX
8x11		14	1500	1360	SPT0CM102F11O00RAXXX	
7 (8.1)	220	5x7	28	900	500	SPT0QM221D07O00RAXXX
	270	5x8	28	1000	500	SPT0QM271D08O00RAXXX
	330	5x9	28	1000	500	SPT0QM331D09O00RAXXX
	470	6.3x7	28	1100	658	SPT0QM471E07O00RAXXX
		5.5x9	28	1000	658	SPT0QM471B09O00RAXXX
	560	6.3x8	28	1200	784	SPT0QM561E08O00RAXXX
	680	6.3x9	17	1200	952	SPT0QM681E09O00RAXXX
	820	6.3x10	17	1300	1148	SPT0QM821E10O00RAXXX
820	8x9	17	1300	1148	SPT0QM821F09O00RAXXX	
7.5 (8.6)	220	5x7	28	900	500	SPT0AM221D07O00RAXXX
	270	5x7	28	900	500	SPT0AM271D07O00RAXXX
	330	5x9	28	1000	500	SPT0AM331D09O00RAXXX
	390	5x9	28	1000	585	SPT0AM391D09O00RAXXX
	470	6.3x7	35	900	705	SPT0AM471E07O00RAXXX
		5.5x9	28	1000	705	SPT0AM471B09O00RAXXX
	500	5.5x9	28	1000	750	SPT0AM501B09O00RAXXX
	560	6.3x8	28	1100	840	SPT0AM561E08O00RAXXX
	680	6.3x9	17	1200	1020	SPT0AM681E09O00RAXXX
	820	6.3x10	17	1300	1230	SPT0AM821E10O00RAXXX
8x9		17	1300	1230	SPT0AM821F09O00RAXXX	
1200	8x11	17	1440	1800	SPT0AM122F11O00RAXXX	
10 (11.5)	47	5x7	52	600	500	SPT1AM470D07O00RAXXX
	56	5x7	52	600	500	SPT1AM560D07O00RAXXX
	68	5x7	52	600	500	SPT1AM680D07O00RAXXX
	82	5x7	52	700	500	SPT1AM820D07O00RAXXX
	100	5x7	52	700	500	SPT1AM101D07O00RAXXX
	120	5x7	30	700	500	SPT1AM121D07O00RAXXX
	150	5x7	30	700	500	SPT1AM151D07O00RAXXX
	180	5x8	30	800	500	SPT1AM181D08O00RAXXX
	220	5x9	30	800	500	SPT1AM221D09O00RAXXX
		6.3x8	22	900	500	SPT1AM221E08O00RAXXX
	270	6.3x8	30	900	540	SPT1AM271E08O00RAXXX
	330	6.3x8	30	900	660	SPT1AM331E08O00RAXXX
		8x9	22	1000	660	SPT1AM331F09O00RAXXX
	390	6.3x8	30	1000	780	SPT1AM391E08O00RAXXX

PT series

■ STANDARD RATINGS

VDC (SV)	Cap (µF)	Size DxL(mm)	ESR (mΩ, 20°C, 100kHz) (max.)	Rated ripple current (mA rms/125°C, 100kHz)	Leakage Current (µA)(max.)	Part Number
10 (11.5)	470	5.5x9	30	1000	940	SPT1AM471B09000RAXXX
		6.3x8	30	1000	940	SPT1AM471E08000RAXXX
		8x9	22	1000	940	SPT1AM471F09000RAXXX
		8x11	18	1600	940	SPT1AM471F11000RAXXX
	560	6.3x10	19	1000	1120	SPT1AM561E10000RAXXX
		8x9	22	1000	1120	SPT1AM561F09000RAXXX
		8x11	18	1100	1360	SPT1AM681F11000RAXXX
		8x11	18	1200	1640	SPT1AM821F11000RAXXX
	1000	8x11	18	1200	2000	SPT1AM102F11000RAXXX
		10x12	15	1500	2000	SPT1AM102G12000RAXXX
		8x12	15	1300	2400	SPT1AM122F12000RAXXX
		10x12	15	1600	2400	SPT1AM122G12000RAXXX
	1500	10x12	15	1600	3000	SPT1AM152G12000RAXXX
		10x13	15	1700	3600	SPT1AM182G13000RAXXX
10x15		15	1800	4400	SPT1AM222G15000RAXXX	
10x18		15	1800	5000	SPT1AM332G18000RAXXX	
12 (13.8)	330	5.5x9	28	900	792	SPT1TM331B09000RAXXX
		6.3x9	28	1000	1128	SPT1TM471B09000RAXXX
	470	5.5x9	28	900	1128	SPT1TM471E09000RAXXX
		6.3x10	21	1000	1344	SPT1TM561E10000RAXXX
	680	6.3x11	21	1100	1632	SPT1TM681E11000RAXXX
		8x11	17	1100	1968	SPT1TM821F11000RAXXX
	1000	8x12	17	1200	2400	SPT1TM102F12000RAXXX
		8x14	17	1300	2880	SPT1TM122F14000RAXXX
1500	8x16	17	1400	3600	SPT1TM152F16000RAXXX	
	47	5x7	30	600	500	SPT1CM470D07000RAXXX
56		5x7	30	600	500	SPT1CM560D07000RAXXX
	68	5x7	30	600	500	SPT1CM680D07000RAXXX
82		5x8	30	600	500	SPT1CM820D08000RAXXX
	100	5x7	30	600	500	SPT1CM101D07000RAXXX
6.3x5		37	600	500	SPT1CM101E05000RAXXX	
6.3x8		30	800	500	SPT1CM101E08000RAXXX	
5x8		30	700	500	SPT1CM121D08000RAXXX	
120	5x8	30	700	500	SPT1CM151D08000RAXXX	
	5x8	30	700	500	SPT1CM181D08000RAXXX	
150	6.3x7	24	700	576	SPT1CM181E07000RAXXX	
	5x10	30	700	704	SPT1CM221D10000RAXXX	
	6.3x8	30	800	704	SPT1CM221E08000RAXXX	
	6.3x10	22	800	704	SPT1CM221E10000RAXXX	
180	5.5x9	30	800	864	SPT1CM271B09000RAXXX	
	6.3x8	30	800	864	SPT1CM271E08000RAXXX	
	8x9	30	800	864	SPT1CM271F09000RAXXX	
	5.5x9	30	800	1056	SPT1CM331B09000RAXXX	
330	6.3x9	30	800	1056	SPT1CM331E09000RAXXX	
	6.3x10	30	900	1056	SPT1CM331E10000RAXXX	
	6.3x11	22	900	1504	SPT1CM471E11000RAXXX	
	8x11	22	1300	1504	SPT1CM471F11000RAXXX	
470	8x9	19	1200	1504	SPT1CM471F09000RAXXX	
	8x11	22	900	1792	SPT1CM561F11000RAXXX	
	8x13	22	900	1792	SPT1CM561F13000RAXXX	
	10x12	18	1000	1792	SPT1CM561G12000RAXXX	
560	8x11	22	1000	2176	SPT1CM681F11000RAXXX	
	10x12	18	1000	2176	SPT1CM681G12000RAXXX	
	8x13	16	1000	2624	SPT1CM821F13000RAXXX	
	10x12	18	1100	2624	SPT1CM821G12000RAXXX	
820	10x12	18	1200	3200	SPT1CM102G12000RAXXX	
	8x14	18	1200	3200	SPT1CM102F14000RAXXX	
	10x18	18	1600	4800	SPT1CM152G18000RAXXX	
	10x14	18	1600	5000	SPT1CM182G14000RAXXX	
1000	10x18	18	1700	5000	SPT1CM222G18000RAXXX	
	82	6.3x8	42	1290	500	SPT1DM820E08000RAXXX
		6.3x8	42	700	500	SPT1DM121E08000RAXXX
	120	6.3x10	28	700	600	SPT1DM151E10000RAXXX
8x11		28	700	880	SPT1DM221F11000RAXXX	
220	8x11	28	800	1080	SPT1DM271F11000RAXXX	
	10x12	28	800	1880	SPT1DM471G12000RAXXX	
470	8x11	28	700	1880	SPT1DM471F11000RAXXX	
	10x12	28	900	2240	SPT1DM561G12000RAXXX	
560	10x15	28	900	2720	SPT1DM681G15000RAXXX	
	10x18	28	1000	3280	SPT1DM821G18000RAXXX	
820	10x18	28	1100	4000	SPT1DM102G18000RAXXX	
	22	5x9	90	500	500	SPT1EM220D09000RAXXX
25 (28.8)	33	5x9	90	500	500	SPT1EM330D09000RAXXX
	39	5x8	90	500	500	SPT1EM390D08000RAXXX
	47	5x9	90	500	500	SPT1EM470D09000RAXXX
	56	5x9	90	600	500	SPT1EM560D09000RAXXX

Conductive Polymer Radial Type

PT series

■ STANDARD RATINGS

VDC (SV)	Cap (μF)	Size DxL(mm)	ESR (mΩ, 20°C, 100kHz) (max.)	Rated ripple current (mA rms/125°C, 100kHz)	Leakage Current (μA)(max.)	Part Number
25 (28.8)	68	6.3x7	45	600	500	SPT1EM680E07O00RAXXX
	82	6.3x7	45	600	500	SPT1EM820E07O00RAXXX
	100	6.3x8	45	700	500	SPT1EM101E08O00RAXXX
		6.3x10	30	800	500	SPT1EM101E10O00RAXXX
	120	8x11	30	900	500	SPT1EM101F11O00RAXXX
		6.3x8	45	700	600	SPT1EM121E08O00RAXXX
	150	6.3x10	30	800	750	SPT1EM151E10O00RAXXX
	180	6.3x10	30	800	900	SPT1EM181F10O00RAXXX
		8x9	45	700	1100	SPT1EM181F09O00RAXXX
	220	8x11	30	900	1100	SPT1EM221F11O00RAXXX
		10x12	30	1000	1350	SPT1EM221G12O00RAXXX
	270	8x11	30	900	1650	SPT1EM271F11O00RAXXX
		8x11	30	900	1650	SPT1EM331F11O00RAXXX
	330	10x12	30	1100	1650	SPT1EM331G12O00RAXXX
		10x10	37	800	2350	SPT1EM331G10O00RAXXX
	470	10x12	30	1200	2350	SPT1EM471G12O00RAXXX
		8x16	30	1000	2350	SPT1EM471F16O00RAXXX
	560	10x12	30	1200	2800	SPT1EM561G12O00RAXXX
680	10x15	30	1200	3400	SPT1EM681G15O00RAXXX	
	10x12	30	1200	3400	SPT1EM681G12O00RAXXX	
820	10x18	30	1200	4100	SPT1EM821G18O00RAXXX	
1000	10x18	30	1300	5000	SPT1EM102G18O00RAXXX	

Specifications subject to change without notice.