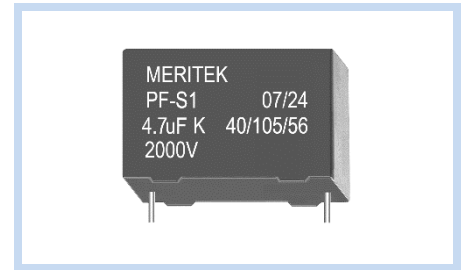


FEATURE

- Self Healing Property
- High Ripple Current Capability
- Low Losses, High Frequency Performance
- Applications: Pulse Circuit, Switch-Mode Power Supply, Direct Mount on IGBT Modules, Snubbing, High Frequency AC Loads



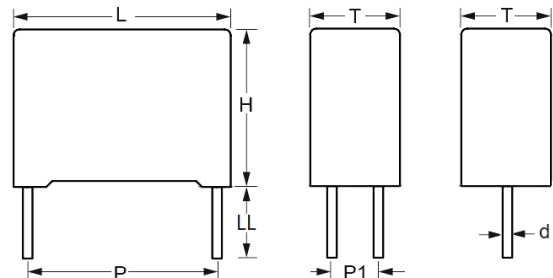
ELECTRICAL CHARACTERISTICS

Item	Characteristic				
Operating Temperature	-40~+105°C (85°C~+105°C Decreasing factor 1.25% per °C for Rated Voltage)				
Capacitance Range	0.001 μF~4.7 μF, ±5%(J), ±10%(K) at +25°C				
Climatic Category	40/105/56 IEC60068-1				
Dissipation Factor	0.001, at 1KHz; at 25°C				
DC Operating Voltage	630	1000	1300	1600	2000
Max Ripple Current	1.8~16	1.5~16	1.7~16	1.1~14	0.5~14
Overvoltage	110% of Vr	115%	120%	130%	Max duration Per day
	30% of On-Load	30mins	5mins	1min	
Insulation Resistance	R > 100,000MΩ for C ≤ 0.33 μF		Between leads, at 100 V, 60 sec		
	RC > 30,000MΩ*μF for C > 0.33 μF		Between leads, at 100 V, 60 sec		
Withstanding Voltage	(1.5* Vr) VDC for 10sec		Between Terminal, at 25°C±5°C		
	3000VAC, for 60sec		Between Terminal and Case, at 20 ±2°C		
Self-inductance	<1nH		per mm of lead spacing		
Life Expectancy	100,000 hours		at hot spot temperature THS		

DIMENSIONS

No of Pin	P ±0.5mm	d ±0.05mm	L±0.5mm
2-pin	15.0	0.8	18
2-pin	22.5	0.8	26
2-pin	27.5	0.8, 1.0	32
2-pin	37.5	1.0	42

Note:
 1. L±1.0mm, H±1mm, T±1mm, See the table below for dimension
 2. LL Options: 3MM, 4mm, 5mm, 7mm, 15mm Min



PART NUMBERING SYSTEM

PF **684K** **20** **372** **S1** **5**
 (1) (2) (3) (4) (5) (6)

No	Item	Code	Description	
(1)	Product Code	PF	Power Film Capacitor, Metallized PP Film	
(2)	Nominal Capacitance	684K	0.68 μF ±10%(K)	First two digits: Significant, Third: Multiplier
(3)	Rated DC Voltage Code	20	20: 2000VDC	First two digits of Operating DC Voltage, V _{NDC}
(4)	Internal Code	372	37: 37.5mm pitch, 2: 2pins	See the electrical specification table below
(5)	Series Code	S1	Pulse Capacitor Series, Box Type	
(6)	Option Code	5	5: LL 5mm Bulk package	Blank: LL: 15mm min, 4: LL 4mm, Bulk package

ELECTRICAL SPECIFICATION – 630VDC (63)

CAP (μ F)	Dimensions (mm)					dv/dt (V/ μ s)	Peak Current (A)	ESR 10KHz (m Ω)	ESL (nH)	I _{rms} 10KHz 70°C (A)	No of Pin	Part Number
	L	H	T	P	d							
0.010	18.0	11.0	5.0	15.0	0.8	3000	30	62.0	12	1.8	2	PF103%63152S1x
0.012	18.0	11.0	5.0	15.0	0.8	3000	36	52.0	12	2.2	2	PF123%63152S1x
0.015	18.0	11.0	5.0	15.0	0.8	3000	45	42.0	12	2.5	2	PF153%63152S1x
0.018	18.0	11.0	5.0	15.0	0.8	3000	54	35.0	12	2.7	2	PF183%63152S1x
0.020	18.0	11.0	5.0	15.0	0.8	3000	60	32.0	12	2.8	2	PF203%63152S1x
0.022	18.0	11.0	5.0	15.0	0.8	3000	66	30.0	12	2.9	2	PF223%63152S1x
0.027	18.0	12.0	6.0	15.0	0.8	3000	81	25.0	12	3.2	2	PF273%63152S1x
0.033	18.0	12.0	6.0	15.0	0.8	3000	99	20.0	12	3.7	2	PF333%63152S1x
0.039	18.0	12.0	6.0	15.0	0.8	3000	117	16.0	12	3.9	2	PF393%63152S1x
0.047	18.0	13.5	7.5	15.0	0.8	3000	141	15.0	12	4.5	2	PF473%63152S1x
0.056	18.0	13.5	7.5	15.0	0.8	3000	168	14.0	12	4.6	2	PF563%63152S1x
0.068	18.0	14.5	8.5	15.0	0.8	3000	204	13.5	12	4.7	2	PF683%63152S1x
0.082	18.0	16.0	10	15.0	0.8	3000	246	13.2	12	4.8	2	PF823%63152S1x
0.10	18.0	16.0	10	15.0	0.8	3000	300	13.0	12	5.0	2	PF104%63152S1x
0.12	18.0	19.0	11	15.0	0.8	3000	360	12.5	12	5.4	2	PF124%63152S1x
0.047	26.0	15.5	6.0	22.5	0.8	1500	70.5	20.0	15	3.8	2	PF473%63222S1x
0.056	26.0	15.5	6.0	22.5	0.8	1500	84	19.5	15	4.0	2	PF563%63222S1x
0.068	26.0	15.5	6.0	22.5	0.8	1500	102	19.0	15	4.2	2	PF683%63222S1x
0.082	26.0	15.5	6.0	22.5	0.8	1500	123	18.0	15	4.5	2	PF823%63222S1x
0.10	26.0	15.5	6.0	22.5	0.8	1500	150	16.0	15	5.0	2	PF104%63222S1x
0.12	26.0	16.5	7.0	22.5	0.8	1500	180	14.0	15	5.3	2	PF124%63222S1x
0.15	26.0	17.0	8.5	22.5	0.8	1500	225	11.0	15	6.0	2	PF154%63222S1x
0.18	26.0	17.0	8.5	22.5	0.8	1500	270	10.0	15	6.5	2	PF184%63222S1x
0.22	26.0	19.0	10	22.5	0.8	1500	330	8.5	15	7.5	2	PF224%63222S1x
0.27	26.0	20.0	11	22.5	0.8	1500	405	6.5	15	8.5	2	PF274%63222S1x
0.33	26.0	20.0	11	22.5	0.8	1500	495	6.0	15	9.0	2	PF334%63222S1x
0.39	26.0	22.0	12	22.5	0.8	1500	585	5.0	15	10.0	2	PF394%63222S1x
0.15	32.0	17.0	8.0	27.5	0.8	900	135	25.0	20	4.6	2	PF154%63272S1x
0.18	32.0	17.0	8.0	27.5	0.8	900	162	22.0	20	4.8	2	PF184%63272S1x
0.22	32.0	18.0	9.0	27.5	0.8	900	198	20.0	20	5.0	2	PF224%63272S1x
0.27	32.0	20.0	11	27.5	0.8	900	243	17.5	20	5.5	2	PF274%63272S1x
0.33	32.0	20.0	11	27.5	0.8	900	297	16.5	20	5.8	2	PF334%63272S1x
0.39	32.0	20.0	11	27.5	0.8	900	351	16.0	20	6.0	2	PF394%63272S1x
0.47	32.0	22.0	13	27.5	0.8	900	423	14.0	20	6.5	2	PF474%63272S1x
0.56	32.0	22.0	13	27.5	0.8	900	504	12.0	20	7.0	2	PF564%63272S1x
0.68	32.0	24.5	13	27.5	0.8	900	612	10.5	20	7.5	2	PF684%63272S1x
0.82	32.0	28.0	14	27.5	0.8	900	738	9.0	20	8.5	2	PF824%63272S1x
1.0	32.0	33.0	18	27.5	0.8	900	900	7.0	20	10.0	2	PF105%63272S1x
1.2	32.0	33.0	18	27.5	0.8	900	1080	6.0	20	13.0	2	PF125%63272S1x
1.5	32.0	37.0	22	27.5	1.0	900	1350	5.0	20	15.0	2	PF155%63272S1x
1.8	32.0	37.0	22	27.5	1.0	900	1620	4.0	20	16.0	2	PF185%63272S1x
0.33	42.0	22.0	11	37.5	1.0	500	165	13.0	25	6.8	2	PF334%63372S1x
0.47	42.0	22.0	11	37.5	1.0	500	235	12.5	25	7.0	2	PF474%63372S1x
0.56	42.0	22.0	11	37.5	1.0	500	280	11.0	25	7.5	2	PF564%63372S1x
0.68	42.0	22.0	11	37.5	1.0	500	340	10.5	25	8.0	2	PF684%63372S1x
0.82	42.0	28.5	16	37.5	1.0	500	410	10.5	25	8.0	2	PF824%63372S1x
1.0	42.0	28.5	16	37.5	1.0	500	500	10.0	25	8.5	2	PF105%63372S1x
1.5	42.0	28.5	16	37.5	1.0	500	750	9.0	25	9.5	2	PF155%63372S1x
1.8	42.0	32.0	19	37.5	1.0	500	900	8.5	25	10.5	2	PF185%63372S1x
2.2	42.0	40.0	20	37.5	1.0	500	1100	8.0	25	11.5	2	PF225%63372S1x
2.7	42.0	40.0	20	37.5	1.0	500	1350	7.0	25	13.0	2	PF275%63372S1x
3.3	42.0	44.0	24	37.5	1.0	500	1650	6.0	25	14.0	2	PF335%63372S1x
3.9	42.0	45.0	30	37.5	1.0	500	1950	5.0	25	15.0	2	PF395%63372S1x
4.7	42.0	50.0	35	37.5	1.0	500	2350	4.0	25	16.0	2	PF475%63372S1x

Note: % denoted to tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K) at 25°C, x denoted to option code, see the parts number system

ELECTRICAL SPECIFICATION – 1000VDC (10)

CAP (uF)	Dimensions (mm)					dv/dt (V/us)	Peak Current (A)	ESR 10KHz (mΩ)	ESL (nH)	I _{rms} 10KHz 70°C (A)	No of Pin	Part Number
	L	H	T	P	d							
0.0082	18.0	11.0	5.0	15.0	0.8	3500	28.7	80.0	10	1.5	2	PF822%10152S1x
0.010	18.0	11.0	5.0	15.0	0.8	3500	35	62.0	12	1.8	2	PF103%10152S1x
0.012	18.0	11.0	5.0	15.0	0.8	3500	42	52.0	12	2.2	2	PF123%10152S1x
0.015	18.0	11.0	5.0	15.0	0.8	3500	52.5	42.0	12	2.5	2	PF153%10152S1x
0.018	18.0	11.0	5.0	15.0	0.8	3500	63	35.0	12	2.7	2	PF183%10152S1x
0.020	18.0	12.0	6.0	15.0	0.8	3500	70	32.0	10	2.8	2	PF203%10152S1x
0.022	18.0	12.0	6.0	15.0	0.8	3500	77	29.0	10	3.0	2	PF223%10152S1x
0.027	18.0	13.5	7.5	15.0	0.8	3500	94.5	24.0	12	3.5	2	PF273%10152S1x
0.033	18.0	13.5	7.5	15.0	0.8	3500	115.5	19.0	12	4.0	2	PF333%10152S1x
0.039	18.0	14.5	8.5	15.0	0.8	3500	136.5	16.0	12	4.5	2	PF393%10152S1x
0.047	18.0	14.5	8.5	15.0	0.8	3500	164.5	14.0	12	4.9	2	PF473%10152S1x
0.027	26.0	15.5	6.0	22.5	0.8	2100	56.7	24.0	15	3.8	2	PF273%10222S1x
0.033	26.0	15.5	6.0	22.5	0.8	2100	69.3	19.0	15	4.3	2	PF333%10222S1x
0.039	26.0	15.5	6.0	22.5	0.8	2100	81.9	16.0	15	4.8	2	PF393%10222S1x
0.047	26.0	16.5	7.0	22.5	0.8	2100	98.7	15.0	15	5.0	2	PF473%10222S1x
0.056	26.0	16.5	7.0	22.5	0.8	2100	117.6	14.5	15	5.4	2	PF563%10222S1x
0.068	26.0	17.0	8.5	22.5	0.8	2100	142.8	14.0	15	5.6	2	PF683%10222S1x
0.082	26.0	19.0	10	22.5	0.8	2100	172.2	13.5	15	5.8	2	PF823%10222S1x
0.10	26.0	19.0	10	22.5	0.8	2100	210	13.0	15	6.0	2	PF104%10222S1x
0.12	26.0	20.0	11	22.5	0.8	1500	180	12.5	15	6.5	2	PF124%10222S1x
0.15	26.0	22.0	12	22.5	0.8	1500	225	11.0	15	7.0	2	PF154%10222S1x
0.10	32.0	17.0	8.0	27.5	0.8	900	90	25.0	20	4.5	2	PF104%10272S1x
0.12	32.0	18.0	9.0	27.5	0.8	900	108	22.0	20	4.8	2	PF124%10272S1x
0.15	32.0	20.0	11	27.5	0.8	900	135	21.0	20	5.0	2	PF154%10272S1x
0.18	32.0	22.0	13	27.5	0.8	900	162	18.0	20	5.5	2	PF184%10272S1x
0.22	32.0	22.0	13	27.5	0.8	900	198	14.0	20	6.0	2	PF224%10272S1x
0.27	32.0	24.5	13	27.5	0.8	900	243	13.5	20	6.5	2	PF274%10272S1x
0.33	32.0	28.0	14	27.5	0.8	900	297	12.0	20	7.0	2	PF334%10272S1x
0.39	32.0	33.0	18	27.5	0.8	900	351	11.0	20	7.5	2	PF394%10272S1x
0.47	32.0	33.0	18	27.5	0.8	900	423	10.0	20	8.0	2	PF474%10272S1x
0.56	32.0	37.0	22	27.5	1.0	900	504	9.0	20	8.5	2	PF564%10272S1x
0.68	32.0	37.0	22	27.5	1.0	900	612	8.0	20	9.5	2	PF684%10272S1x
0.18	42.0	22.0	11	37.5	1.0	500	90	18.0	25	6.0	2	PF184%10372S1x
0.22	42.0	22.0	11	37.5	1.0	500	110	14.0	25	6.5	2	PF224%10372S1x
0.27	42.0	24.0	13	37.5	1.0	500	135	13.0	25	6.8	2	PF274%10372S1x
0.33	42.0	24.0	13	37.5	1.0	500	165	12.0	25	7.2	2	PF334%10372S1x
0.39	42.0	28.0	17	37.5	1.0	500	195	11.5	25	7.4	2	PF394%10372S1x
0.47	42.0	28.0	17	37.5	1.0	500	235	11.0	25	7.6	2	PF474%10372S1x
0.56	42.0	28.0	17	37.5	1.0	500	280	10.5	25	8.0	2	PF564%10372S1x
0.68	42.0	32.0	19	37.5	1.0	500	340	10.0	25	8.5	2	PF684%10372S1x
0.82	42.0	40.0	20	37.5	1.0	500	410	9.0	25	10.0	2	PF824%10372S1x
1.0	42.0	40.0	20	37.5	1.0	500	500	7.0	25	11.0	2	PF105%10372S1x
1.2	42.0	44.0	24	37.5	1.0	500	600	6.5	25	12.0	2	PF125%10372S1x
1.5	42.0	44.0	24	37.5	1.0	500	750	6.0	25	13.0	2	PF155%10372S1x
1.8	42.0	45.0	30	37.5	1.0	500	900	5.0	25	15.0	2	PF185%10372S1x
2.2	42.0	45.0	30	37.5	1.0	500	1100	4.0	25	16.0	2	PF225%10372S1x

Note: % denoted to tolerance: ±5%(J), ±10%(K) at 25°C, x denoted to option code, see the parts number system

ELECTRICAL SPECIFICATION – 1300VDC(13)

CAP (uF)	Dimensions (mm)					dv/dt (V/us)	Peak Current (A)	ESR 10KHz (mΩ)	ESL (nH)	I _{rms} 10KHz 70°C (A)	No of Pin	Part Number
	L	H	T	P	d							
0.0082	18.0	11.0	5.0	15.0	0.8	3500	28.7	95.0	10	1.7	2	PF822%13152S1x
0.010	18.0	11.0	5.0	15.0	0.8	3500	35	65.0	12	2.0	2	PF103%13152S1x
0.012	18.0	11.0	5.0	15.0	0.8	3500	42	52.0	12	2.2	2	PF123%13152S1x
0.015	18.0	11.0	5.0	15.0	0.8	3500	52.5	42.0	12	2.5	2	PF153%13152S1x
0.018	18.0	12.0	6.0	15.0	0.8	3500	63	38.0	12	2.8	2	PF183%13152S1x
0.020	18.0	12.0	6.0	15.0	0.8	3500	70	36.0	10	2.9	2	PF203%13152S1x
0.022	18.0	13.0	7.0	15.0	0.8	3500	77	32.0	10	3.1	2	PF223%13152S1x
0.027	18.0	13.5	7.5	15.0	0.8	3500	94.5	26.0	12	3.7	2	PF273%13152S1x
0.033	18.0	14.5	8.5	15.0	0.8	3500	115.5	19.0	12	4.0	2	PF333%13152S1x
0.039	18.0	16.0	9.0	15.0	0.8	3500	136.5	16.0	12	4.5	2	PF393%13152S1x
0.047	18.0	16.0	10	15.0	0.8	3500	164.5	15.0	12	4.8	2	PF473%13152S1x
0.056	18.0	19.0	11	15.0	0.8	3500	196	14.0	12	5.0	2	PF563%13152S1x
0.027	26.0	15.5	6.0	22.5	0.8	2100	56.7	24.0	15	3.5	2	PF273%13222S1x
0.033	26.0	15.5	6.0	22.5	0.8	2100	69.3	19.0	15	4.0	2	PF333%13222S1x
0.039	26.0	15.5	6.0	22.5	0.8	2100	81.9	16.0	15	4.8	2	PF393%13222S1x
0.047	26.0	16.5	7.0	22.5	0.8	2100	98.7	15.0	15	5.0	2	PF473%13222S1x
0.056	26.0	16.5	7.0	22.5	0.8	2100	117.6	14.5	15	5.4	2	PF563%13222S1x
0.068	26.0	17.0	8.5	22.5	0.8	2100	142.8	14.0	15	6.0	2	PF683%13222S1x
0.082	26.0	19.0	10	22.5	0.8	2100	172.2	13.5	15	6.5	2	PF823%13222S1x
0.10	26.0	19.0	10	22.5	0.8	2100	210	13.0	15	7.0	2	PF104%13222S1x
0.12	26.0	20.0	11	22.5	0.8	1500	180	12.5	15	6.5	2	PF124%13222S1x
0.15	26.0	22.0	12	22.5	0.8	1500	225	12.0	15	7.0	2	PF154%13222S1x
0.18	26.0	24.5	13	22.5	0.8	1500	270	11.0	15	7.5	2	PF184%13222S1x
0.22	26.0	29.5	14.5	22.5	0.8	1500	330	9.5	15	8.5	2	PF224%13222S1x
0.10	32.0	17.0	8.0	27.5	0.8	900	90	19.0	20	5.8	2	PF104%13272S1x
0.12	32.0	18.0	9.0	27.5	0.8	900	108	18.0	20	6.2	2	PF124%13272S1x
0.15	32.0	20.0	11	27.5	0.8	900	135	15.0	20	6.8	2	PF154%13272S1x
0.18	32.0	22.0	13	27.5	0.8	900	162	14.0	20	7.0	2	PF184%13272S1x
0.22	32.0	22.0	13	27.5	0.8	900	198	12.0	20	7.5	2	PF224%13272S1x
0.27	32.0	24.0	14	27.5	0.8	900	243	11.0	20	8.0	2	PF274%13272S1x
0.33	32.0	28.0	14	27.5	0.8	900	297	10.0	20	8.5	2	PF334%13272S1x
0.39	32.0	30.0	16	27.5	0.8	900	351	9.5	20	9.0	2	PF394%13272S1x
0.47	32.0	33.0	18	27.5	0.8	900	423	9.0	20	9.5	2	PF474%13272S1x
0.56	32.0	37.0	22	27.5	1.0	900	504	8.5	20	10.0	2	PF564%13272S1x
0.68	32.0	37.0	22	27.5	1.0	900	612	8.0	20	11.0	2	PF684%13272S1x
0.18	42.0	22.0	11	37.5	1.0	500	90	19.0	25	5.8	2	PF184%13372S1x
0.22	42.0	22.0	11	37.5	1.0	500	110	18.0	25	6.0	2	PF224%13372S1x
0.27	42.0	24.0	13	37.5	1.0	500	135	16.5	25	6.2	2	PF274%13372S1x
0.33	42.0	24.0	13	37.5	1.0	500	165	15.0	25	6.5	2	PF334%13372S1x
0.39	42.0	28.0	17	37.5	1.0	500	195	13.0	25	7.4	2	PF394%13372S1x
0.47	42.0	28.0	17	37.5	1.0	500	235	12.5	25	7.6	2	PF474%13372S1x
0.56	42.0	28.0	17	37.5	1.0	500	280	11.5	25	8.5	2	PF564%13372S1x
0.68	42.0	32.0	19	37.5	1.0	500	340	11.0	25	9.0	2	PF684%13372S1x
0.82	42.0	40.0	20	37.5	1.0	500	410	9.0	25	10.0	2	PF824%13372S1x
1.0	42.0	40.0	20	37.5	1.0	500	500	8.0	25	11.5	2	PF105%13372S1x
1.2	42.0	44.0	24	37.5	1.0	500	600	7.0	25	12.5	2	PF125%13372S1x
1.5	42.0	43.0	28	37.5	1.0	500	750	5.8	25	14.0	2	PF155%13372S1x
1.8	42.0	45.0	30	37.5	1.0	500	900	5.0	25	16.0	2	PF185%13372S1x

Note: % denoted to tolerance: ±5%(J), ±10%(K) at 25°C, x denoted to option code, see the parts number system

ELECTRICAL SPECIFICATION – 1600VDC(16)

CAP (uF)	Dimensions (mm)					dv/dt (V/us)	Peak Current (A)	ESR 10KHz (mΩ)	ESL (nH)	I _{rms} 10KHz 70°C (A)	No of Pin	Part Number
	L	H	T	P	d							
0.0033	18.0	11.0	5.0	15.0	0.8	6000	19.8	190.0	12	1.1	2	PF332%16152S1x
0.0047	18.0	11.0	5.0	15.0	0.8	6000	28.2	165.0	12	1.3	2	PF472%16152S1x
0.0056	18.0	11.0	5.0	15.0	0.8	6000	33.6	120.0	12	1.4	2	PF562%16152S1x
0.0068	18.0	11.0	5.0	15.0	0.8	6000	40.8	100.0	12	1.6	2	PF682%16152S1x
0.0082	18.0	11.0	5.0	15.0	0.8	6000	49.2	95.0	12	1.8	2	PF822%16152S1x
0.010	18.0	11.0	5.0	15.0	0.8	6000	60	65.0	12	2.0	2	PF103%16152S1x
0.012	18.0	12.0	6.0	15.0	0.8	6000	72	50.0	12	2.3	2	PF123%16152S1x
0.015	18.0	12.0	6.0	15.0	0.8	6000	90	45.0	12	2.5	2	PF153%16152S1x
0.018	18.0	13.5	7.5	15.0	0.8	6000	108	35.0	12	3.0	2	PF183%16152S1x
0.022	18.0	13.5	7.5	15.0	0.8	6000	132	30.0	12	3.2	2	PF223%16152S1x
0.027	18.0	14.5	8.5	15.0	0.8	6000	162	25.0	12	3.8	2	PF273%16152S1x
0.033	18.0	14.5	8.5	15.0	0.8	6000	198	20.0	12	4.0	2	PF333%16152S1x
0.015	26.0	15.5	6.0	22.5	0.8	3000	45	40.0	15	2.8	2	PF153%16222S1x
0.022	26.0	15.5	6.0	22.5	0.8	3000	66	30.0	15	3.5	2	PF223%16222S1x
0.033	26.0	15.5	6.0	22.5	0.8	3000	99	20.0	15	4.0	2	PF333%16222S1x
0.039	26.0	16.5	7.0	22.5	0.8	3000	117	16.0	15	4.8	2	PF393%16222S1x
0.047	26.0	16.5	7.0	22.5	0.8	3000	141	15.0	15	5.2	2	PF473%16222S1x
0.056	26.0	17.0	8.5	22.5	0.8	3000	168	14.0	15	5.4	2	PF563%16222S1x
0.068	26.0	19.0	10	22.5	0.8	3000	204	13.0	15	5.8	2	PF683%16222S1x
0.082	26.0	19.0	10	22.5	0.8	3000	246	12.0	15	6.0	2	PF823%16222S1x
0.10	26.0	20.0	11	22.5	0.8	3000	300	11.0	15	6.5	2	PF104%16222S1x
0.039	32.0	17.0	8.0	27.5	0.8	2000	78	30.0	20	3.8	2	PF393%16272S1x
0.047	32.0	17.0	8.0	27.5	0.8	2000	94	29.0	20	4.0	2	PF473%16272S1x
0.056	32.0	17.0	8.0	27.5	0.8	2000	112	28.0	20	4.5	2	PF563%16272S1x
0.068	32.0	18.0	9.0	27.5	0.8	2000	136	24.0	20	5.0	2	PF683%16272S1x
0.082	32.0	20.0	11	27.5	0.8	2000	164	20.0	20	5.5	2	PF823%16272S1x
0.10	32.0	22.0	13	27.5	0.8	2000	200	18.0	20	6.0	2	PF104%16272S1x
0.12	32.0	22.0	13	27.5	0.8	2000	240	16.0	20	6.5	2	PF124%16272S1x
0.15	32.0	24.5	13	27.5	0.8	2000	300	14.0	20	7.0	2	PF154%16272S1x
0.18	32.0	28.0	14	27.5	0.8	2000	360	12.0	20	7.5	2	PF184%16272S1x
0.22	32.0	33.0	18	27.5	0.8	2000	440	10.0	20	8.5	2	PF224%16272S1x
0.27	32.0	33.0	18	27.5	0.8	2000	540	9.5	20	9.0	2	PF274%16272S1x
0.33	32.0	33.0	18	27.5	0.8	2000	660	8.0	20	10.0	2	PF334%16272S1x
0.39	32.0	37.0	22	27.5	1.0	2000	780	7.0	20	11.0	2	PF394%16272S1x
0.47	32.0	37.0	22	27.5	1.0	2000	940	6.0	20	12.0	2	PF474%16272S1x
0.082	42.0	22.0	11	37.5	1.0	1200	98.4	28.0	25	4.8	2	PF823%16372S1x
0.10	42.0	22.0	11	37.5	1.0	1200	120	24.0	25	5.0	2	PF104%16372S1x
0.12	42.0	22.0	11	37.5	1.0	1200	144	22.0	25	5.5	2	PF124%16372S1x
0.15	42.0	22.0	11	37.5	1.0	1200	180	20.0	25	5.8	2	PF154%16372S1x
0.18	42.0	24.0	13	37.5	1.0	1200	216	18.0	25	6.0	2	PF184%16372S1x
0.22	42.0	24.0	13	37.5	1.0	1200	264	17.0	25	6.2	2	PF224%16372S1x
0.27	42.0	24.0	13	37.5	1.0	1200	324	15.0	25	6.5	2	PF274%16372S1x
0.33	42.0	28.5	16	37.5	1.0	1200	396	14.0	25	6.8	2	PF334%16372S1x
0.39	42.0	28.5	16	37.5	1.0	1200	468	12.5	25	7.5	2	PF394%16372S1x
0.47	42.0	32.0	19	37.5	1.0	1200	564	12.0	25	8.0	2	PF474%16372S1x
0.56	42.0	40.0	20	37.5	1.0	1200	672	11.0	25	9.0	2	PF564%16372S1x
0.68	42.0	40.0	20	37.5	1.0	1200	816	10.5	25	9.5	2	PF684%16372S1x
0.82	42.0	44.0	24	37.5	1.0	1200	984	9.0	25	10.5	2	PF824%16372S1x
1.0	42.0	44.0	24	37.5	1.0	1200	1200	7.5	25	12.0	2	PF105%16372S1x
1.2	42.0	45.0	30	37.5	1.0	1200	1440	6.0	25	14.0	2	PF125%16372S1x

Note: % denoted to tolerance: ±5%(J), ±10%(K) at 25°C, x denoted to option code, see the parts number system

ELECTRICAL SPECIFICATION – 2000VDC(20)

CAP (uF)	Dimensions (mm)					dv/dt (V/us)	Peak Current (A)	ESR 10KHz (mΩ)	ESL (nH)	Irms 10KHz 70°C (A)	No of Pin	Part Number
	L	H	T	P	d							
0.0010	18.0	11.0	5.0	15.0	0.8	9500	9.5	630.0	12	0.5	2	PF102%20152S1x
0.0012	18.0	11.0	5.0	15.0	0.8	9500	11.4	500.0	12	0.6	2	PF122%20152S1x
0.0015	18.0	11.0	5.0	15.0	0.8	9500	14.25	420.0	12	0.7	2	PF152%20152S1x
0.0018	18.0	11.0	5.0	15.0	0.8	9500	17.1	350.0	12	0.8	2	PF182%20152S1x
0.0022	18.0	11.0	5.0	15.0	0.8	9500	20.9	300.0	12	0.9	2	PF222%20152S1x
0.0027	18.0	11.0	5.0	15.0	0.8	9500	25.65	240.0	12	1.0	2	PF272%20152S1x
0.0033	18.0	11.0	5.0	15.0	0.8	9500	31.35	190.0	12	1.2	2	PF332%20152S1x
0.0039	18.0	11.0	5.0	15.0	0.8	9500	37.05	165.0	12	1.3	2	PF392%20152S1x
0.0047	18.0	11.0	5.0	15.0	0.8	9500	44.65	135.0	12	1.4	2	PF472%20152S1x
0.0056	18.0	12.0	6.0	15.0	0.8	9500	53.2	110.0	12	1.6	2	PF562%20152S1x
0.0068	18.0	12.0	6.0	15.0	0.8	9500	64.6	95.0	12	1.8	2	PF682%20152S1x
0.0082	18.0	12.0	6.0	15.0	0.8	9500	77.9	80.0	12	2.0	2	PF822%20152S1x
0.010	18.0	13.5	7.5	15.0	0.8	9500	95	65.0	12	2.5	2	PF103%20152S1x
0.012	18.0	14.5	8.5	15.0	0.8	9500	114	50.0	12	2.8	2	PF123%20152S1x
0.015	18.0	14.5	8.5	15.0	0.8	9500	142.5	45.0	12	3.0	2	PF153%20152S1x
0.018	18.0	16.0	10	15.0	0.8	9500	171	35.0	12	3.8	2	PF183%20152S1x
0.0010	26.0	15.5	6.0	22.5	0.8	4500	4.5	550.0	15	0.6	2	PF102%20222S1x
0.0012	26.0	15.5	6.0	22.5	0.8	4500	5.4	450.0	15	0.7	2	PF122%20222S1x
0.0015	26.0	15.5	6.0	22.5	0.8	4500	6.75	360.0	15	0.8	2	PF152%20222S1x
0.0018	26.0	15.5	6.0	22.5	0.8	4500	8.1	300.0	15	0.9	2	PF182%20222S1x
0.0022	26.0	15.5	6.0	22.5	0.8	4500	9.9	250.0	15	1.0	2	PF222%20222S1x
0.0027	26.0	15.5	6.0	22.5	0.8	4500	12.15	230.0	15	1.2	2	PF272%20222S1x
0.0033	26.0	15.5	6.0	22.5	0.8	4500	14.85	200.0	15	1.2	2	PF332%20222S1x
0.0039	26.0	15.5	6.0	22.5	0.8	4500	17.55	180.0	15	1.4	2	PF392%20222S1x
0.0047	26.0	15.5	6.0	22.5	0.8	4500	21.15	140.0	15	1.6	2	PF472%20222S1x
0.0056	26.0	15.5	6.0	22.5	0.8	4500	25.2	120.0	15	1.8	2	PF562%20222S1x
0.0068	26.0	15.5	6.0	22.5	0.8	4500	30.6	95.0	15	2.0	2	PF682%20222S1x
0.0082	26.0	15.5	6.0	22.5	0.8	4500	36.9	75.0	15	2.2	2	PF822%20222S1x
0.010	26.0	15.5	6.0	22.5	0.8	4500	45	65.0	15	2.3	2	PF103%20222S1x
0.012	26.0	15.5	6.0	22.5	0.8	4500	54	60.0	15	2.5	2	PF123%20222S1x
0.015	26.0	15.5	6.0	22.5	0.8	4500	67.5	45.0	15	2.8	2	PF153%20222S1x
0.018	26.0	15.5	6.0	22.5	0.8	4500	81	35.0	15	3.2	2	PF183%20222S1x
0.022	26.0	16.5	7.0	22.5	0.8	4500	99	26.0	15	4.0	2	PF223%20222S1x
0.027	26.0	16.5	7.0	22.5	0.8	4500	121.5	20.0	15	4.5	2	PF273%20222S1x
0.033	26.0	17.0	8.5	22.5	0.8	4500	148.5	18.0	15	5.2	2	PF333%20222S1x
0.039	26.0	19.0	10	22.5	0.8	4500	175.5	15.0	15	5.8	2	PF393%20222S1x
0.047	26.0	19.0	10	22.5	0.8	4500	211.5	13.0	15	6.0	2	PF473%20222S1x
0.056	26.0	20.0	11	22.5	0.8	4500	252	12.0	15	6.5	2	PF563%20222S1x
0.022	32.0	17.0	8.0	27.5	0.8	2500	55	45.0	20	3.0	2	PF223%20272S1x
0.027	32.0	17.0	8.0	27.5	0.8	2500	67.5	40.0	20	3.5	2	PF273%20272S1x
0.033	32.0	18.0	9.0	27.5	0.8	2500	82.5	35.0	20	4.0	2	PF333%20272S1x
0.039	32.0	20.0	11	27.5	0.8	2500	97.5	28.0	20	4.5	2	PF393%20272S1x
0.047	32.0	20.0	11	27.5	0.8	2500	117.5	25.0	20	4.8	2	PF473%20272S1x
0.056	32.0	22.0	13	27.5	0.8	2500	140	24.0	20	5.0	2	PF563%20272S1x
0.068	32.0	22.0	13	27.5	0.8	2500	170	22.0	20	5.5	2	PF683%20272S1x
0.082	32.0	24.5	13	27.5	0.8	2500	205	20.0	20	6.0	2	PF823%20272S1x
0.10	32.0	28.0	14	27.5	0.8	2500	250	18.0	20	6.5	2	PF104%20272S1x
0.12	32.0	33.0	18	27.5	0.8	2500	300	16.0	20	7.0	2	PF124%20272S1x
0.15	32.0	33.0	18	27.5	0.8	2500	375	14.0	20	7.5	2	PF154%20272S1x
0.18	32.0	37.0	22	27.5	1.0	2500	450	12.0	20	8.0	2	PF184%20272S1x
0.22	32.0	37.0	22	27.5	1.0	2500	550	10.0	20	8.5	2	PF224%20272S1x
0.033	42.0	22.0	11	37.5	1.0	1500	49.5	35.0	25	4.0	2	PF333%20372S1x
0.039	42.0	22.0	11	37.5	1.0	1500	58.5	28.0	25	4.5	2	PF393%20372S1x
0.047	42.0	22.0	11	37.5	1.0	1500	70.5	26.0	25	4.8	2	PF473%20372S1x
0.056	42.0	22.0	11	37.5	1.0	1500	84	24.0	25	5.0	2	PF563%20372S1x
0.068	42.0	22.0	11	37.5	1.0	1500	102	23.0	25	5.4	2	PF683%20372S1x
0.082	42.0	22.0	11	37.5	1.0	1500	123	22.0	25	5.8	2	PF823%20372S1x

0.10	42.0	24.0	13	37.5	1.0	1500	150	18.0	25	6.5	2	PF104%20372S1x
0.12	42.0	24.0	13	37.5	1.0	1500	180	16.0	25	7.0	2	PF124%20372S1x
0.15	42.0	28.5	16	37.5	1.0	1500	225	15.0	25	7.5	2	PF154%20372S1x
0.18	42.0	28.5	16	37.5	1.0	1500	270	14.0	25	8.0	2	PF184%20372S1x
0.22	42.0	32.0	19	37.5	1.0	1500	330	12.0	25	8.5	2	PF224%20372S1x
0.27	42.0	40.0	20	37.5	1.0	1500	405	11.0	25	9.0	2	PF274%20372S1x
0.33	42.0	40.0	20	37.5	1.0	1500	495	10.5	25	9.5	2	PF334%20372S1x
0.39	42.0	44.0	24	37.5	1.0	1500	585	9.5	25	10.0	2	PF394%20372S1x
0.47	42.0	44.0	24	37.5	1.0	1500	705	9.0	25	10.5	2	PF474%20372S1x
0.56	42.0	45.0	30	37.5	1.0	1500	840	7.5	25	12.0	2	PF564%20372S1x
0.68	42.0	45.0	30	37.5	1.0	1500	1020	6.0	25	14.0	2	PF684%20372S1x

Note: % denoted to tolerance: ±5%(J), ±10%(K) at 25°C, x denoted to option code, see the parts number system

ENVIRONMENTAL TEST

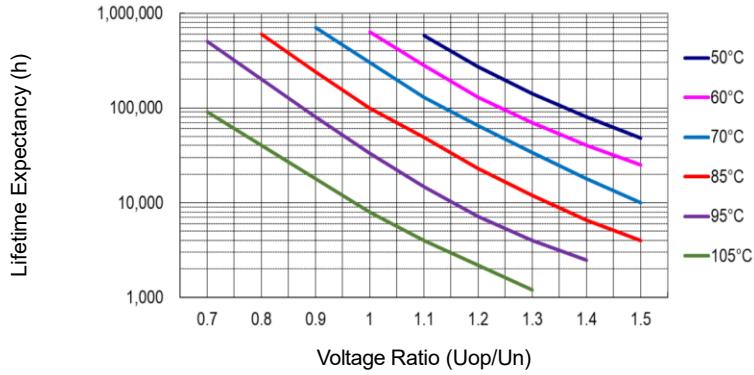
Item	Test Condition	Performance																		
Damp Heat Loading	Temperature: +40 ± 2°C, RH: 90% to 95%, Duration: 1000+24/-0 hours Loading Voltage: rated voltage	ΔC/C: ≤ ± 5% DF: ≤ 50*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																		
High Temperature Loading	Temperature: +85 ± 2°C, Duration: 1000 hours Apply 125% of Rated Voltage for 1,000 +24/-0 hours.	ΔC/C: ≤ ± 5% DF: ≤ 15*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																		
Rapid Temperature Change	High Temperature: +105 ± 5°C, Low Temperature: -40 ± 5°C Temperature Cycle: Total 5 cycles, 30 min ± 10% for each temperature	ΔC/C: ≤ ± 3% DF: ≤ 15*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																		
Humidity Resistance	Temperature: +40°C ± 2°C, RH: 90% to 95%, Duration: 1344 +24/-0 hours	ΔC/C: ≤ ± 5% DF: ≤ 15*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																		
Solderability	Soldering temperature: +245 ± 5°C, Immersion duration: 2 ± 0.5 seconds	More than 95% of Coverage																		
Soldering Heat Resistance	Preheat temperature 100°C~120°C, Preheat Duration: 100 sec max, Soldering Temperature: +260 ± 5°C, Immersion Duration: ≤ 10 seconds, Depth: 1.5 ± 0.5 mm Soldering Temperature: +400°C, Immersion Duration: ≤ 3 seconds Stabilized for 1.5 ± 0.5hr at ordinary condition before measurements	ΔC/C: ≤ ± 2% DF: ≤ 15*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																		
Temperature Cycle	Test Temperature Cycle: Total 5 cycles, Each cycle includes <table border="1"> <thead> <tr> <th>Cycle</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> </tr> </thead> <tbody> <tr> <td>Temp (°C)</td> <td>+20±2</td> <td>-40±3</td> <td>+20±2</td> <td>+105±3</td> <td>+20±2</td> </tr> <tr> <td>Time (mins)</td> <td>3</td> <td>30</td> <td>3</td> <td>30</td> <td>3</td> </tr> </tbody> </table>	Cycle	1	2	3	4	5	Temp (°C)	+20±2	-40±3	+20±2	+105±3	+20±2	Time (mins)	3	30	3	30	3	ΔC/C: ≤ ± 5% DF: ≤ 15*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit
Cycle	1	2	3	4	5															
Temp (°C)	+20±2	-40±3	+20±2	+105±3	+20±2															
Time (mins)	3	30	3	30	3															
Resistance to solvent	Solvent: propanol (isopropyl alcohol) Temperature: 23 ± 5°C, Immersion time: 5 ± 0.5min, Drying time: 5 mins Mechanical treatment: 10 rubbing (with cotton-wool)	ΔC/C: ≤ ± 1% DF: ≤ 15*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																		
Terminal Strength	<table border="1"> <thead> <tr> <th>Item</th> <th>0.50 < D ≤ 0.80mm</th> <th>0.80 < D ≤ 1.25mm</th> <th>Condition</th> </tr> </thead> <tbody> <tr> <td>Tension</td> <td>10N</td> <td>20N</td> <td rowspan="2">Make two successive bends in each direction</td> </tr> <tr> <td>Bending</td> <td>5N</td> <td>10N</td> </tr> </tbody> </table>	Item	0.50 < D ≤ 0.80mm	0.80 < D ≤ 1.25mm	Condition	Tension	10N	20N	Make two successive bends in each direction	Bending	5N	10N	No visible damage							
Item	0.50 < D ≤ 0.80mm	0.80 < D ≤ 1.25mm	Condition																	
Tension	10N	20N	Make two successive bends in each direction																	
Bending	5N	10N																		
Vibration	Frequency Change: 10--55--10 Hz, Vibration Distance: 1.5 mm Direction: X, Y, Z, Duration: 2 ± 1 hours each direction	ΔC/C: ≤ ± 1% DF: ≤ 15*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																		
Mechanical Shock	Pulse-shape: half-sine wave, Acceleration: 500 m/s ² , Duration of pulse: 11 ms																			
Bump	Total number of bumps: 1000 times or 4000 times, Acceleration: 400 m/s ² , Pulse duration: 6 ms																			

Notes:

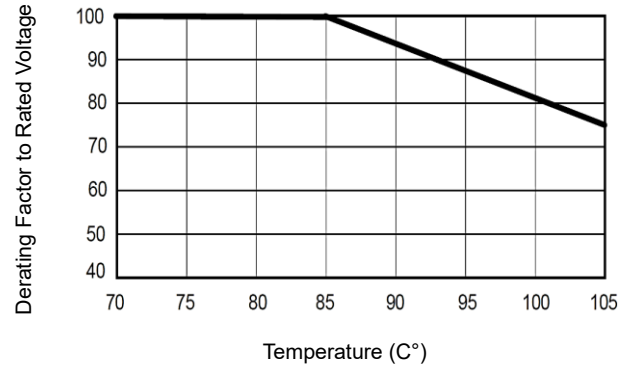
1. Ambient Temp: 15°C to 35°C, Relative Humidity (R.H.): 45% to 75%, Air Pressure: 86kpa to 106kpa
2. Storage needs to be kept indoors at -10~+40°C and relative humidity of under 75% without any sudden temperature changes, direct sunlight and corrosive gas around
3. Do not apply and exceeding vibration, shock (dropping) and pressure
4. Reference Standards: IEC 60068, IEC 61071, MIL-STD-202, IEC 60384

CHARACTERISTIC CURVE

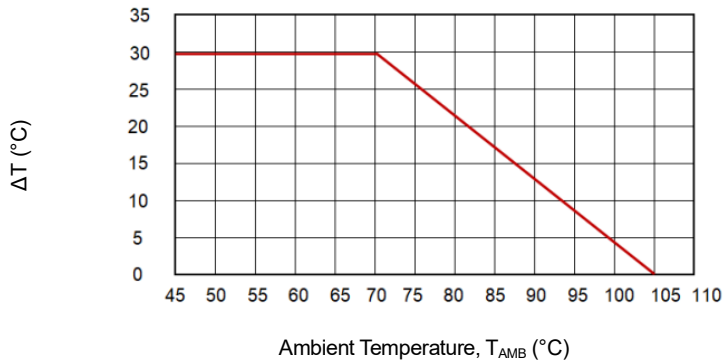
Lifetime Expectancy



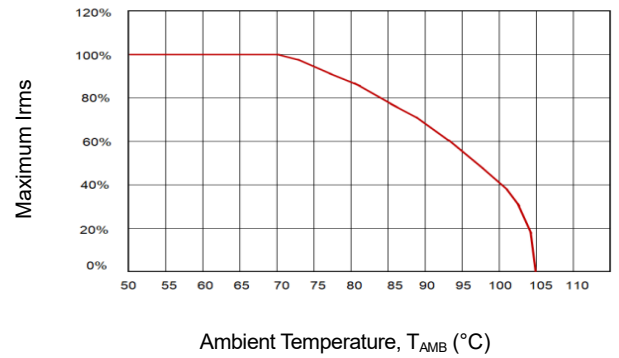
Rated Voltage vs Temperature



Maximum Over Temperature (ΔT) Vs Ambient Temperature (T_{AMB})



Maximum I_{rms} VS Ambient Temperature (T_{AMB})



SIZE CODE TABLE

Size Code	Dimension						Pitch		Lead Wire	
	W	Tolerance	H	Tolerance	T	Tolerance	P	Tolerance	Ød	Tolerance
E14	18	0.5	11	0.5	5	0.5	15	0.5	0.8	0.05
E17	18	0.5	12	0.5	6	0.5	15	0.5	0.8	0.05
E21	18	0.5	13	0.5	7	0.5	15	0.5	0.8	0.05
E29	18	0.5	13.5	0.5	7.5	0.5	15	0.5	0.8	0.05
E34	18	0.5	14.5	0.5	8.5	0.5	15	0.5	0.8	0.05
E38	18	0.5	16	0.5	9	0.5	15	0.5	0.8	0.05
E43	18	0.5	16	0.5	10	0.5	15	0.5	0.8	0.05
E47	18	0.5	19	0.5	11	0.5	15	0.5	0.8	0.05
F14	26	0.5	15.5	0.5	6	0.5	22.5	0.5	0.8	0.05
F17	26	0.5	16.5	0.5	7	0.5	22.5	0.5	0.8	0.05
F20	26	0.5	17	0.5	8.5	0.5	22.5	0.5	0.8	0.05
F24	26	0.5	19	0.5	10	0.5	22.5	0.5	0.8	0.05
F26	26	0.5	20	0.5	11	0.5	22.5	0.5	0.8	0.05
F27	26	0.5	22	0.5	12	0.5	22.5	0.5	0.8	0.05
G14	32	0.8	17	0.8	8	0.8	27.5	0.5	0.8	0.05
G15	32	0.8	18	0.8	9	0.8	27.5	0.5	0.8	0.05
G18	32	0.8	20	0.8	11	0.8	27.5	0.5	0.8	0.05
G21	32	0.8	22	0.8	13	0.8	27.5	0.5	0.8	0.05
G22	32	0.8	24.5	0.8	13	0.8	27.5	0.5	0.8	0.05
G26	32	0.8	28	0.8	14	0.8	27.5	0.5	0.8	0.05
G34	32	0.8	33	0.8	18	0.8	27.5	0.5	0.8	0.05
G40	32	0.8	37	0.8	22	0.8	27.5	0.5	0.8	0.05
K11	42	0.8	24	0.8	13	0.8	37.5	0.5	1.0	0.05
K17	42	0.8	28	0.8	17	0.8	37.5	0.5	1.0	0.05
K21	42	0.8	32	0.8	19	0.8	37.5	0.5	1.0	0.05
K24	42	0.8	40	0.8	20	0.8	37.5	0.5	1.0	0.05
K32	42	0.8	44	0.8	24	0.8	37.5	0.5	1.0	0.05
K42	42	0.8	45	0.8	30	0.8	37.5	0.5	1.0	0.05
K47	42	0.8	50	0.8	35	0.8	37.5	0.5	1.0	0.05
K85	42	0.8	22	0.8	11	0.8	37.5	0.5	1.0	0.05
K86	42	0.8	28.5	0.8	16	0.8	37.5	0.5	1.0	0.05

*Specifications subject to change without notice.