

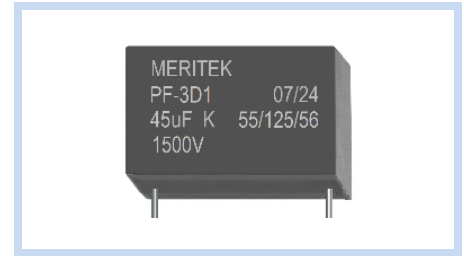
**Power Film Capacitor, DC-Link
THB Grade 2000Hours 135°C Max
AEC-Q200**

PF-3D1 Series

MERITEK

FEATURE

- Self-Healing Property
- High Ripple and Peak (dv/dt) Current Capability
- Low ESL, High Frequency Performance
- High Temperature Capabilities, Up to 135°C
- Applications: Renewable Energies Inverters, UPS, Battery Charger, Motor Drive, High Frequency Applications
- THB-2000H, 85°C, 85%RH, VR, 2000h
- AEC-Q200 Compliant



ELECTRICAL CHARACTERISTICS

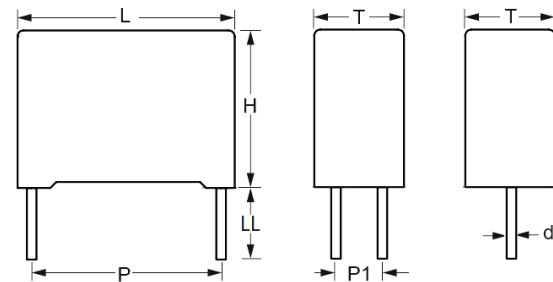
Item	Characteristic					
Operating Temperature	-55~+135°C (85°C~+105°C Decreasing factor 0.50% per °C for rated voltage), (105°C~+125°C Decreasing factor 0.75% per °C for VOP105), (125°C~+135°C Decreasing factor 2.5% per °C for VOP125)					
Capacitance Range	1.0µF ~ 190µF, ±5%(J), ±10%(K) at 25°C					
Climatic Category	55/125/56 IEC60068-1					
Operating DC Voltage, V _{NDC}	500	600	700	900	1000	1100
Operating DC Voltage, V _{OP105}	450	540	630	810	900	990
Operating DC Voltage, V _{OP125}	383	460	536	689	765	842
Operating DC Voltage, V _{OP135}	288	345	402	517	574	632
Max RMS Current, 95°C 10KHz	5.8~42.9	5.3~36.9	4.5~36.9	4.1~33.7	4.5~31.2	4.5~31.2
Dissipation Factor	C ≤20µF	C >20µF	C >80µF	--	at 1KHz; at 25°C	
	≤0.002 (0.2%)	≤0.003 (0.3%)	≤0.004 (0.4%)	--		
Overvoltage	110% of Vr	115% of Vr	120% of Vr	130% of Vr	Max duration within one day	
	30% On-Load	30mins	5mins	1min		
Insulation Resistance	IR°C ≥ 30,000sec		Between leads, at 100 Vdc, 60 sec, at +25°C ±5°C°			
Withstanding Voltage	1.5* VR VDC for 10sec		Between Terminals, for 10sec, at +25°C±5°C			
	3000VAC, 50/60Hz 60sec		Between Terminals and Enclosure, for 60sec, at +25 ±5°C			
Self-inductance	<1nH per mm of lead spacing					
Life Expectancy	100,000 hours	20,000 hours	4,000 hours	1,000 hours	at hot spot temperature T _{HS}	
	V _{NDC} at 85°C	V _{OP105} at 105°C	V _{NDC} at 125°C	V _{NDC} at 135°C		

DIMENSIONS

No of Pin	P ±0.5mm	P1 ±0.5mm	d ±0.05mm	L ±1.0mm
2-pin	27.5	NA	0.8	32
2-pin	37.5	NA	1.0	42
4-pin	27.5	10.2	0.8	32
4-pin	37.5	10.2, 20.3	1.0	42
4-pin	52.5	20.3	1.2	57.5

Note:

1. L±1.0mm, H±1mm, T±1mm, See the table below for dimension
2. LL Options: 3mm, 4mm, 4.5mm, 5mm, 7mm, 15mm Min



PART NUMBERING SYSTEM

PF 456K 15 540 3D1 5
(1) (2) (3) (4) (5) (6)

No	Item	Code	Description
(1)	Product Code	PF	Power Film Capacitor, Metallized PP Film
(2)	Nominal Capacitance	456K	25 µF ±10%(K) First two digits: Significant, Third: Multiplier
(3)	Rated Voltage	15	15: 1500VDC First two digits of Operating DC Voltage, V _{NDC}
(4)	Internal Code	540	5: 52.5mm pitch, 4: 4 Pins, 0: Case Code See the electrical specification table below
(5)	Series Code	3D1	DC Link Capacitor Series, Box Type 135°C Max Temp THB-2000H, 85°C, 85%RH, VR, 2000h
(6)	Option Code	5	5: LL 5mm Bulk package 4: LL 4mm, Blank: LL: 15mm min, Bulk package

ELECTRICAL SPECIFICATION – 500VDC (50)

CAP (μ F)	Dimensions (mm)						dv/dt (V/us)	Peak Current (A)	Surge Current (A)	ESR 10KHz (m Ω)	ESL (nH)	Thermal Res (°C/W)	Irms 10KHz 95°C (A)	No of Pin	Part Number
	L	H	T	P	P1	d									
3.5	32	20	11	27.5	-	1.0	65	228	683	16.4	14	35.7	5.8	2	PF355%502203D1x
4	32	20	11	27.5	-	1.0	65	260	780	16.4	14	35.7	5.8	2	PF405%502203D1x
5	32	22	13	27.5	-	1.0	65	325	975	13.1	15	33.3	6.8	2	PF505%502203D1x
6	32	22	13	27.5	-	1.0	65	390	1170	10.9	15	33.3	7.4	2	PF605%502203D1x
8	32	24	14	27.5	-	1.0	65	520	1560	8.2	17	29.4	9.1	2	PF805%502203D1x
10	32	28	14	27.5	-	1.0	65	650	1950	6.6	18	27.8	10.5	2	PF106%502203D1x
12	32	30	16	27.5	-	1.0	65	780	2340	5.5	18	26.3	11.8	2	PF126%502203D1x
13	32	28	18	27.5	-	1.0	65	845	2535	5.5	19	23.8	12.4	2	PF136%502203D1x
15	32	33	18	27.5	-	1.0	65	975	2925	4.4	19	21.7	14.5	2	PF156%502203D1x
20	32	37	22	27.5	-	1.0	65	1300	3900	4.2	19	17.2	16.6	2	PF206%502203D1x
30	42	40	20	37.5	10.2	1.2	35	1050	3150	5.1	14	13.9	16.9	4	PF306%503403D1x
40	42	37	28	37.5	10.2	1.2	35	1400	4200	3.8	16	12.2	20.8	4	PF406%503403D1x
45	42	44	24	37.5	10.2	1.2	35	1575	4725	3.8	16	12.2	20.8	4	PF456%503403D1x
50	42	43	28	37.5	10.2	1.2	35	1750	5250	3.0	15	11.8	23.6	4	PF506%503403D1x
60	42	45	30	37.5	20.3	1.2	35	2100	6300	2.5	16	10.0	28.1	4	PF606%503403D1x
70	42	48	33	37.5	20.3	1.2	35	2450	7350	2.5	17	9.1	29.9	4	PF706%503403D1x
90	42	55	40	37.5	20.3	1.2	35	3150	9450	2.3	18	7.7	33.6	4	PF906%503403D1x
120	42	60	45	37.5	20.3	1.2	35	4200	12600	1.7	20	7.1	40.3	4	PF127%503403D1x
90	57.5	45	30	52.5	20.3	1.2	20	1800	5400	3.9	15	8.0	25.3	4	PF906%505403D1x
120	57.5	50	35	52.5	20.3	1.2	20	2400	7200	2.9	17	6.9	31.5	4	PF127%505403D1x
140	57.5	65	35	52.5	20.3	1.2	20	2800	8400	2.7	18	5.7	35.8	4	PF147%505403D1x
180	57.5	65	45	52.5	20.3	1.2	20	3600	10800	2.1	20	5.1	42.9	4	PF187%505403D1x

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 – 600VDC (60)

CAP (μ F)	Dimensions (mm)						dv/dt (V/us)	Peak Current (A)	Surge Current (A)	ESR 10KHz (m Ω)	ESL (nH)	Thermal Res (°C/W)	Irms 10KHz 95°C (A)	No of Pin	Part Number
	L	H	T	P	P1	d									
2.5	32	20	11	27.5	-	1.0	65	163	488	19.7	14	35.7	5.3	2	PF255%602203D1x
3	32	22	13	27.5	-	1.0	65	195	585	16.4	16	33.3	6.1	2	PF305%602203D1x
5	32	28	14	27.5	-	1.0	65	325	975	9.8	17	27.8	8.6	2	PF505%602203D1x
6	32	28	14	27.5	-	1.0	65	390	1170	8.2	17	27.8	9.4	2	PF605%602203D1x
8	32	28	18	27.5	-	1.0	65	520	1560	6.1	19	23.8	11.7	2	PF805%602203D1x
10	32	33	18	27.5	-	1.0	65	650	1950	4.9	21	21.7	13.7	2	PF106%602203D1x
14	32	37	22	27.5	-	1.0	65	910	2730	4.5	23	17.2	16.0	2	PF146%602203D1x
20	42	40	20	37.5	10.2	1.2	35	700	2100	5.7	14	13.9	15.9	4	PF206%603403D1x
25	42	37	28	37.5	10.2	1.2	35	875	2625	4.6	15	12.2	19.0	4	PF256%603403D1x
28	42	44	24	37.5	10.2	1.2	35	980	2940	4.1	15	12.2	20.1	4	PF286%603403D1x
40	42	45	30	37.5	20.3	1.2	35	1400	4200	3.3	16	10.0	24.8	4	PF406%603403D1x
45	42	48	33	37.5	20.3	1.2	35	1575	4725	3.5	17	9.1	25.2	4	PF456%603403D1x
55	42	55	40	37.5	20.3	1.2	35	1925	5775	2.8	18	7.7	30.3	4	PF556%603403D1x
65	42	60	45	37.5	20.3	1.2	35	2275	6825	2.4	20	7.1	34.2	4	PF656%603403D1x
55	57.5	45	30	52.5	20.3	1.2	20	1100	3300	5.5	15	8.0	21.4	4	PF556%605403D1x
75	57.5	50	35	52.5	20.3	1.2	20	1500	4500	4.0	17	6.9	26.9	4	PF756%605403D1x
85	57.5	65	35	52.5	20.3	1.2	20	1700	5100	3.4	18	5.7	32.3	4	PF856%605403D1x
100	57.5	65	45	52.5	20.3	1.2	20	2000	6000	2.9	20	5.1	36.9	4	PF107%605403D1x

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 – 700VDC (70)

CAP (μ F)	Dimensions (mm)						dv/dt (V/us)	Peak Current (A)	Surge Current (A)	ESR 10KHz (m Ω)	ESL (nH)	Thermal Res (°C/W)	Irms 10KHz 95°C (A)	No of Pin	Part Number
	L	H	T	P	P1	d									
1.8	32	20	11	27.5	-	1.0	65	117	351	27.3	14	35.7	4.5	2	PF185%702203D1x
2.7	32	22	13	27.5	-	1.0	65	176	527	18.2	15	33.3	5.7	2	PF275%702203D1x
3	32	22	13	27.5	-	1.0	65	195	585	16.4	15	33.3	6.1	2	PF305%702203D1x
4	32	25	13	27.5	-	1.0	65	260	780	12.3	16	31.3	7.2	2	PF405%702203D1x
5	32	24	14	27.5	-	1.0	65	325	975	9.8	17	29.4	8.3	2	PF505%702203D1x
7	32	30	16	27.5	-	1.0	65	455	1365	7.0	18	26.3	10.4	2	PF705%702203D1x
8	32	28	18	27.5	-	1.0	65	520	1560	6.1	19	23.8	11.7	2	PF805%702203D1x
10	32	33	18	27.5	-	1.0	65	650	1950	4.9	21	21.7	13.7	2	PF106%702203D1x
12	32	37	22	27.5	-	1.0	65	780	2340	5.3	23	17.2	14.8	2	PF126%702203D1x
13	32	37	22	27.5	-	1.0	65	845	2535	4.9	23	17.2	15.4	2	PF126%702203D1x
15	42	40	20	37.5	10.2	1.2	35	525	1575	7.6	14	13.9	13.8	4	PF156%703403D1x
20	42	37	28	37.5	10.2	1.2	35	700	2100	5.7	15	12.2	17.0	4	PF206%703403D1x
22	42	44	24	37.5	10.2	1.2	35	770	2310	5.2	15	12.2	17.8	4	PF226%703403D1x
25	42	44	24	37.5	10.2	1.2	35	875	2625	4.6	15	12.2	19.0	4	PF256%703403D1x
30	42	45	30	37.5	20.3	1.2	35	1050	3150	3.8	16	10.0	22.9	4	PF306%703403D1x
35	42	48	33	37.5	20.3	1.2	35	1225	3675	3.3	17	9.1	26.0	4	PF356%703403D1x
40	42	50	35	37.5	20.3	1.2	35	1400	4200	3.2	17	8.3	27.2	4	PF406%703403D1x
50	42	55	40	37.5	20.3	1.2	35	1750	5250	3.1	18	7.7	28.9	4	PF506%703403D1x
55	42	55	40	37.5	20.3	1.2	35	1925	5775	2.8	18	7.7	30.3	4	PF556%703403D1x
65	42	60	45	37.5	20.3	1.2	35	2275	6825	2.4	20	7.1	34.2	4	PF656%703403D1x
45	57.5	45	30	52.5	20.3	1.2	20	900	2700	5.9	15	8.0	20.7	4	PF456%705403D1x
60	57.5	50	35	52.5	20.3	1.2	20	1200	3600	4.4	17	6.9	25.7	4	PF606%705403D1x
85	57.5	65	35	52.5	20.3	1.2	20	1700	5100	3.4	18	5.7	32.3	4	PF856%705403D1x
100	57.5	65	45	52.5	20.3	1.2	20	2000	6000	2.9	20	5.1	36.9	4	PF107%705403D1x

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 – 900VDC (90)

CAP (μ F)	Dimensions (mm)						dv/dt (V/us)	Peak Current (A)	Surge Current (A)	ESR 10KHz (m Ω)	ESL (nH)	Thermal Res (°C/W)	Irms 10KHz 95°C (A)	No of Pin	Part Number
	L	H	T	P	P1	d									
1.2	32	20	11	27.5	-	1.0	65	78	234	32.8	14	35.7	4.1	2	PF125%902203D1x
1.5	32	20	11	27.5	-	1.0	65	98	293	26.2	14	35.7	4.6	2	PF155%902203D1x
2.2	32	22	13	27.5	-	1.0	65	143	429	17.9	15	33.3	5.8	2	PF225%902203D1x
2.7	32	24	14	27.5	-	1.0	65	176	527	14.6	17	29.4	6.8	2	PF275%902203D1x
3.3	32	28	14	27.5	-	1.0	65	215	644	11.9	17	27.8	7.8	2	PF335%902203D1x
4	32	30	16	27.5	-	1.0	65	260	780	9.8	18	26.3	8.8	2	PF405%902203D1x
5	32	28	18	27.5	-	1.0	65	325	975	7.9	19	23.8	10.3	2	PF505%902203D1x
6	32	33	18	27.5	-	1.0	65	390	1170	6.6	21	21.7	11.8	2	PF605%902203D1x
8	32	37	22	27.5	-	1.0	65	520	1560	6.3	23	17.2	13.5	2	PF805%902203D1x
10	42	40	20	37.5	10.2	1.2	35	350	1050	9.1	14	13.9	12.6	4	PF106%903403D1x
12	42	37	22	37.5	10.2	1.2	35	420	1260	7.6	14	14.3	13.6	4	PF126%903403D1x
14	42	37	28	37.5	10.2	1.2	35	490	1470	6.5	14	14.3	14.7	4	PF146%903403D1x
15	42	44	24	37.5	10.2	1.2	35	525	1575	6.1	15	12.2	16.4	4	PF156%903403D1x
20	42	45	30	37.5	20.3	1.2	35	700	2100	4.6	16	10.0	20.9	4	PF206%903403D1x
24	42	48	33	37.5	20.3	1.2	35	840	2520	4.0	17	9.1	23.6	4	PF246%903403D1x
33	42	55	40	37.5	20.3	1.2	35	1155	3465	3.8	18	7.7	26.3	4	PF336%903403D1x
40	42	60	45	37.5	20.3	1.2	35	1400	4200	3.1	20	7.1	30.0	4	PF406%903403D1x
30	57.5	45	30	52.5	20.3	1.2	20	600	1800	7.0	15	8.0	18.9	4	PF306%905403D1x
40	57.5	50	35	52.5	20.3	1.2	20	800	2400	5.3	17	6.9	23.5	4	PF406%905403D1x
55	57.5	65	35	52.5	20.3	1.2	20	1100	3300	4.2	18	5.7	29.0	4	PF556%905403D1x
70	57.5	65	45	52.5	20.3	1.2	20	1400	4200	3.4	20	5.1	33.7	4	PF706%905403D1x

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	Dimensions (mm)						dv/dt (V/us)	Peak Current (A)	Surge Current (A)	ESR 10KHz (mΩ)	ESL (nH)	Thermal Res (°C/W)	Irms 10KHz 95°C (A)	No of Pin	Part Number
	(uF)	L	H	T	P	P1									
1	32	20	11	27.5	-	1.0	65	65	195	27.3	14	35.7	4.5	2	PF105%102203D1x
1.5	32	22	13	27.5	-	1.0	65	98	293	21.9	15	33.3	5.2	2	PF155%102203D1x
2.2	32	28	14	27.5	-	1.0	65	143	429	14.9	17	27.8	7.0	2	PF225%102203D1x
3	32	30	16	27.5	-	1.0	65	195	585	10.9	18	26.3	8.3	2	PF305%102203D1x
3.5	32	28	18	27.5	-	1.0	65	228	683	9.4	19	23.8	9.5	2	PF355%102203D1x
6	32	37	22	27.5	-	1.0	65	390	1170	5.5	23	17.2	14.6	2	PF605%102203D1x
8	42	40	20	37.5	10.2	1.2	35	280	840	9.5	14	13.9	12.3	4	PF805%103403D1x
10	42	37	28	37.5	10.2	1.2	35	350	1050	7.6	15	12.2	14.7	4	PF106%103403D1x
12	42	44	24	37.5	10.2	1.2	35	420	1260	6.3	15	12.2	16.1	4	PF126%103403D1x
15	42	45	30	37.5	20.3	1.2	35	525	1575	5.1	16	10.0	19.9	4	PF156%103403D1x
20	42	48	33	37.5	20.3	1.2	35	700	2100	3.8	17	9.1	24.1	4	PF206%103403D1x
25	42	55	40	37.5	20.3	1.2	35	875	2625	3.5	18	7.7	27.4	4	PF256%103403D1x
30	42	60	45	37.5	20.3	1.2	35	1050	3150	2.9	20	7.1	31.2	4	PF306%103403D1x
24	57.5	45	30	52.5	20.3	1.2	20	480	1440	7.6	15	8.0	18.2	4	PF246%105403D1x
30	57.5	50	35	52.5	20.3	1.2	20	600	1800	6.1	17	6.9	21.9	4	PF306%105403D1x
38	57.5	65	35	52.5	20.3	1.2	20	760	2280	5.0	18	5.7	26.4	4	PF386%105403D1x
45	57.5	65	45	52.5	20.3	1.2	20	900	2700	4.2	20	5.1	30.3	4	PF456%105403D1x

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

ELECTRICAL SPECIFICATION – 1100VDC (11)

CAP	Dimensions (mm)						dv/dt (V/us)	Peak Current (A)	Surge Current (A)	ESR 10KHz (mΩ)	ESL (nH)	Thermal Res (°C/W)	Irms 10KHz 95°C (A)	No of Pin	Part Number
	(uF)	L	H	T	P	P1									
1	32	20	11	27.5	-	1.0	65	65	195	27.3	14	35.7	4.5	2	PF105%112203D1x
1.5	32	22	13	27.5	-	1.0	65	98	293	21.9	15	33.3	5.2	2	PF155%112203D1x
2.2	32	28	14	27.5	-	1.0	65	143	429	14.9	17	27.8	7.0	2	PF225%112203D1x
3	32	30	16	27.5	-	1.0	65	195	585	10.9	18	26.3	8.3	2	PF305%112203D1x
3.3	32	28	18	27.5	-	1.0	65	215	644	9.9	19	23.8	9.2	2	PF335%112203D1x
4	32	33	18	27.5	-	1.0	65	260	780	8.2	21	21.7	10.6	2	PF405%112203D1x
5	32	37	22	27.5	-	1.0	65	325	975	6.6	23	17.2	13.3	2	PF505%112203D1x
8	42	40	20	37.5	10.2	1.2	35	280	840	9.5	14	13.9	12.3	4	PF805%113403D1x
10	42	37	28	37.5	10.2	1.2	35	350	1050	7.6	15	12.2	14.7	4	PF106%113403D1x
12	42	43	28	37.5	10.2	1.2	35	420	1260	6.3	16	11.8	16.4	4	PF126%113403D1x
14	42	45	30	37.5	20.3	1.2	35	490	1470	5.4	16	10.0	19.2	4	PF146%113403D1x
16	42	45	35	37.5	20.3	1.2	35	560	1680	4.8	17	9.1	21.5	4	PF166%113403D1x
18	42	50	35	37.5	20.3	1.2	35	630	1890	4.8	17	8.3	22.4	4	PF186%113403D1x
23	42	55	40	37.5	20.3	1.2	35	805	2415	3.8	18	7.7	26.3	4	PF236%113403D1x
30	42	60	45	37.5	20.3	1.2	35	1050	3150	2.9	20	7.1	31.2	4	PF306%113403D1x
20	57.5	45	30	52.5	20.3	1.2	20	400	1200	8.8	15	8.0	16.9	4	PF206%115403D1x
25	57.5	50	35	52.5	20.3	1.2	20	500	1500	7.0	17	6.9	20.3	4	PF256%115403D1x
38	57.5	65	35	52.5	20.3	1.2	20	760	2280	5.0	18	5.7	26.4	4	PF386%115403D1x
45	57.5	65	45	52.5	20.3	1.2	20	900	2700	4.2	20	5.1	30.3	4	PF456%115403D1x

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

ENVIRONMENTAL TEST

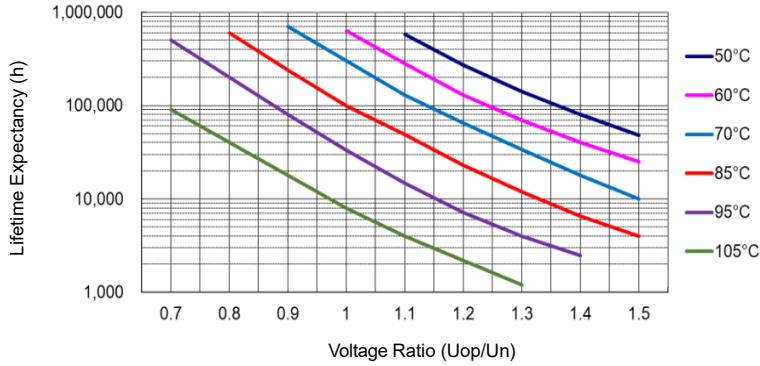
Item	Test Condition	Performance																					
Temperature Humidity Bias (THB) Test	Temperature: +85 ±2°C, Humidity: 85% RH, Duration: 2000 +24/0 hours Loading Voltage: rated voltage Stabilized for 4 hours at standard temperature and humidity before measurements.	ΔC/C: ≤ ± 10% DF: ≤ 150*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																					
Operational Life	Temperature: +85 ±2°C, Apply 130% of rated voltage for 1,000 +24/0 hours. Duration: 500 hours 1000 charges and discharges at 1.4 x I peak (Maximum respective peak current in continuous operation) measurement at 24 ±4 hours after test.	ΔC/C: ≤ ± 5% DF: ≤ 50*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																					
Temperature Cycle	High Temperature: +125 ±5°C, Low Temperature: -40 ±5°C. Cycle: Total 1000 cycles 30min ± 10% for each temperature 1 min maximum transition time. Measurement at 24 ±4 hours after test conclusion	ΔC/C: ≤ ± 5% DF: ≤ 50*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																					
High Temperature Exposure (storage)	Temperature: +125 ±2°C, Duration: 1000 +24/0 hours Measurement at 24 ±4 hours after test conclusion	ΔC/C: ≤ ± 3% DF: ≤ 50*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																					
Moisture Resistance	Temperature: +40 ±2°C, Humidity: 90% to 95% RH, Duration: 1344 +24/0 hours Unpowered measurement at 24 ±4hours after test conclusion	ΔC/C: ≤ ± 5% DF: ≤ 50*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: ≤ ± 0.5% DF: ≤ 50*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																					
Temperature Humidity Cycle	Test Humidity: 90% to 95% R.H, Test Temperature Cycle: Total 10 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> <th>6</th> </tr> </thead> <tbody> <tr> <td>Temp (°C)</td> <td>+25±2 ~ +65±3</td> <td>+65±3</td> <td>+65±3~ +25±2</td> <td>+25±3~ +65±2</td> <td>+65±3</td> <td>+65±3~ +25±2</td> </tr> <tr> <td>Time (hours)</td> <td>2.5</td> <td>3</td> <td>2.5</td> <td>2.5</td> <td>3</td> <td>2.5</td> </tr> </tbody> </table> Stabilized for 8hr at ordinary condition before measurements	Cycle	1	2	3	4	5	6	Temp (°C)	+25±2 ~ +65±3	+65±3	+65±3~ +25±2	+25±3~ +65±2	+65±3	+65±3~ +25±2	Time (hours)	2.5	3	2.5	2.5	3	2.5	ΔC/C: ≤ ± 5% DF: ≤ 50*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit
Cycle	1	2	3	4	5	6																	
Temp (°C)	+25±2 ~ +65±3	+65±3	+65±3~ +25±2	+25±3~ +65±2	+65±3	+65±3~ +25±2																	
Time (hours)	2.5	3	2.5	2.5	3	2.5																	
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: ≤ 50*10 ⁻⁴ at 1 KHz IR: ≥ 50% of initial limit																					
Terminal Strength	<table border="1"> <thead> <tr> <th>Item</th> <th>D ≤0.80mm</th> <th>0.80 < D ≤1.2mm</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	D ≤0.80mm	0.80 < D ≤1.2mm	Condition	Tension	10N	20N	Make two successive bends in each direction	Bending	5N	10N	No visible damage										
Item	D ≤0.80mm	0.80 < D ≤1.2mm	Condition																				
Tension	10N	20N	Make two successive bends in each direction																				
Bending	5N	10N																					
Vibration Resistance	5g force 20 minutes, three directions, 12 cycles in each direction. Test Frequency 10~2000 Hz	ΔC/C: ≤ ± 1% DF: ≤ 50*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:

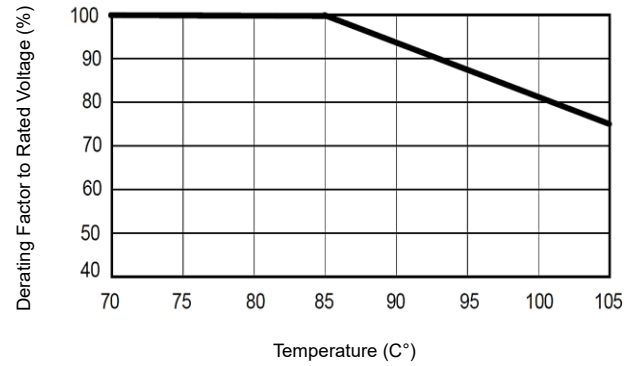
1. Ambient Temp: 15°C to 35°C, Relative Humidity (R.H.): 45% to 75%, Air Pressure: 86kpa to 106kpa
2. Storage needs to be kept indoors at -10~+40°C and relative humidity of under 75% without any sudden temperature changes, direct sunlight and corrosive gas around
3. Do not apply and exceeding vibration, shock (dropping) and pressure
4. Reference Standards: IEC 61071, JESD22 Method JA-104, MIL-STD-202, J-STD-002

CHARACTERISTIC CURVE

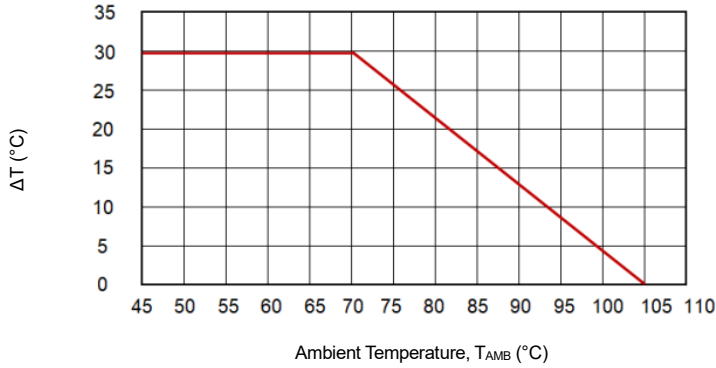
Lifetime Expectancy



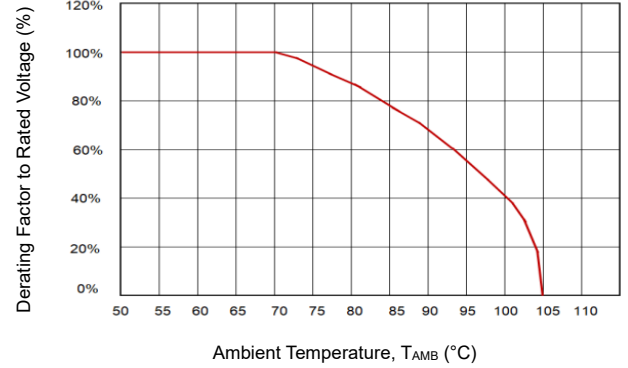
Rated Voltage vs Temperature



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



Maximum I_{RMS} Vs Ambient Temperature (T_{AMB})



*Specifications subject to change without notice.