



MP28 Series

Endurance: 2,000 hours at 105°C

Low ESR

Recommended Applications: System Board, Display Card, Small Charger and intelligent TV

RoHS Compliant and lead-free

● SPECIFICATIONS

Items	Characteristics											
Category Temperature Range	-55~+105° C											
Rated Working Voltage Range	2~25 Vdc											
Nominal Capacitance Range	6.8~680 μF											
Capacitance Tolerance	±20%(M) ; -35~+10%(L) ; -10~+20%(V) ; 0~+20%(A) at 120°C;120Hz											
DC Leakage Current	I ≤ 0.1CV Where, I: Leakage current (μA), C: Nominal capacitance (μF), V: Rated voltage (V) (at 20° C after 2 minutes)											
Dissipation Factor (tan)	Bated Voltage (Vdc)	2	2.5	4	6.3	7.5	10	12.5	16	20	25	(at 20° C, 120Hz)
	Dissipation Factor (max.)	0.06						0.08				
ESR(100kHz, 20° C)	Value in characteristics table; Divided into two levels: A/B											
Temperature Characteristics (Impedance Ratio at 100kHz)	Z(+105° C)/Z(+20° C) ≤ 1.25 Z(-55° C)/Z(+20° C) ≤ 1.25											
Endurance	After applying rated voltage for 2,000 hours at 105°C, the capacitors shall meet the following requirements.											
	Appearance	No significant damage										
	Capacitance Change	≤ ±20% of the initial value										
	Dissipation Factor	≤ 150% of the initial specified value										
	ESR	≤ 150% of the initial specified value										
Humidity Test	After subjecting to 90~95% RH for 500 hours at 60° C (no voltage), the capacitors shall meet the requirement as Endurance.											
	Rated Voltage (Vdc)	2~2.5		4		6.3~7.5		8~16		25		
	capacitance Change	+70, -20%		+60, -20%		+50, -20%		+40, -20%				
	D.F. (tanδ)	≤ 200% of the initial specified value										
	Leakage Current	≤ The initial specified value										
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										
	Dissipation Factor	≤ 150% of the initial specified value										
	ESR	≤ 150% of the initial specified value										
Leakage Current	≤ The initial specified value											

Case Size	L ± 0.3 (mm)	W ± 0.2 (mm)	T ± 0.1 (mm)	W1 ± 0.2 (mm)	S ± 0.2 (mm)
7.3 × 4.3 × 2.8	7.3	4.3	2.8	2.4	1.3

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Characteristics Table

WV (Vdc)	Cap (μF)	Size (LxWxT mm)	ESR (A) (mΩ, 20°C, 100kHz) (max.)	ESR (B) (mΩ, 20°C, 100kHz) (max.)	Rated ripple current (A) (mArms) 100kHz	Rated ripple current [B] (mArms) 100kHz	Leakage Current (μA max.) 20° C
2	100	7.3*4.3*2.8	12	16	2200	2000	20
	150	7.3*4.3*2.8	6	9	3200	3000	30
	220	7.3*4.3*2.8	6	9	3400	3200	44
	270	7.3*4.3*2.8	6	9	3800	3500	54
	300	7.3*4.3*2.8	6	9	3850	3600	60
	330	7.3*4.3*2.8	4.5	8	4100	3800	66
	390	7.3*4.3*2.8	4.5	8	4250	3900	78
	470	7.3*4.3*2.8	4.5	8	4400	4000	94
	560	7.3*4.3*2.8	4.5	8	4800	4400	112
2.5	100	7.3*4.3*2.8	12	16	2200	2000	25
	150	7.3*4.3*2.8	6	9	3200	3000	38
	180	7.3*4.3*2.8	6	9	3300	3100	45
	220	7.3*4.3*2.8	6	9	3400	3200	55
	270	7.3*4.3*2.8	6	9	3800	3500	68
	330	7.3*4.3*2.8	4.5	8	4100	3800	83
	470	7.3*4.3*2.8	4.5	8	4400	4000	118
	560	7.3*4.3*2.8	4.5	8	4800	4400	140
4	82	7.3*4.3*2.8	12	16	2250	2100	33
	150	7.3*4.3*2.8	12	16	2500	2300	60
	220	7.3*4.3*2.8	12	16	2950	2700	88
	330	7.3*4.3*2.8	12	16	3200	2900	132
6.3	22	7.3*4.3*2.8	35	45	1250	1150	14
	33	7.3*4.3*2.8	35	45	2000	1800	21
	47	7.3*4.3*2.8	25	40	2200	2000	30
	68	7.3*4.3*2.8	12	15	2400	2200	43
	100	7.3*4.3*2.8	12	15	2750	2500	63
	120	7.3*4.3*2.8	10	15	3200	2900	76
	150	7.3*4.3*2.8	9	15	3300	3000	95
	180	7.3*4.3*2.8	9	14	3600	3200	113
	220	7.3*4.3*2.8	9	14	3750	3300	139
	270	7.3*4.3*2.8	7	12	4000	3600	170
10	22	7.3*4.3*2.8	35	45	1700	1600	22
	27	7.3*4.3*2.8	18	30	1800	1700	27
	33	7.3*4.3*2.8	18	30	2000	1800	33
	39	7.3*4.3*2.8	18	30	2050	1850	39
	47	7.3*4.3*2.8	18	30	2200	1950	47
	68	7.3*4.3*2.8	18	30	2300	2050	68
	100	7.3*4.3*2.8	18	30	2750	2500	100
	150	7.3*4.3*2.8	16	25	3100	2800	150