

CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

CT

125°C 1000hrs / 105°C 5000hrs & Low ESR
Series

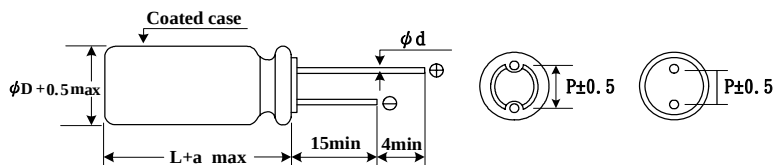
- Features: 125°C, 1000hrs & 105°C, 5000hrs, Low ESR
- Recommended Applications: Motherboard, DC/DC Converter, Adapter, SPS, VCR, Camcorder, DSC, PDA, HD Drive, MO Drive, DVD Drive, Navigation system, Portable Communication Devices
- Corresponding product to RoHS



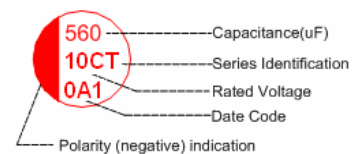
Specifications

Item	Characteristics	
Category Temperature Range	-55 ~ +125°C	
Rated Voltage Range	6.3 ~ 25VDC	
Rated Capacitance Range	10 ~ 1000 μ F	
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20°C	
Surge Voltage	Rated voltage (V) x 1.15	
Leakage Current (MAX) (20°C)	$I \leq 0.2 \text{ CV}$ or $300 \mu\text{A}$ whichever is greater (After rated voltage applied for 2 minutes) Please see the attached characteristics list I = Leakage Current (μA) C = Nominal Capacitance (μF) V = Rated Voltage (V)	
Dissipation Factor (MAX) (tan δ) (120Hz, 20°C)	WV	6.3 ~ 25V
	tan δ	0.12
Low Temperature Stability Impedance Ratio (MAX) (20°C)	Z(100KHz)	6.3 ~ 25V
	Z-25°C / Z+20°C	≤ 1.15
	Z-55°C / Z+20°C	≤ 1.25
Endurance	After applying rated voltage for 1000 hours at 125°C & 5000 hours at 105°C, the capacitor shall meet the following requirement.	
	Appearance	No significant damage
	Capacitance Change	Within $\pm 20\%$ of the initial value
	Dissipation Factor	Not more than 150% of the initial specified value
	Equivalent Series Resistance	Not more than 150% of the initial specified value
Humidity Test	after subjecting 90 to 95% RH for 1000 hours at 60°C. the capacitors shall meet the requirement as Endurance.	
	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 requirement as Endurance.	
Surge Voltage Test		
Failure Rate (MAX)	1% per 1,000 hours (confidence level 60% at 105°C)	

Diagram of Dimensions



Marking : case with red printing



Size code	$\phi D \times L$	P	ϕd	a
E08	6.3X8	2.5	0.6	1.0
G08	8X8	3.5	0.6	1.5
G1B	8X11.5	3.5	0.6	1.0
H1C	10X12.5	5	0.6	1.0

Multiplier for Ripple Current

Frequency (Hz)	$120 \leq F < 1K$	$1K \leq F < 10K$	$10K \leq F < 100K$	$100K \leq F \leq 500K$
Coefficient	0.05	0.3	0.7	1

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■ Dimensions, Rated Ripple Current, Equivalent Series Resistance

Capacitance (uF)	Rated Voltage									
	6.3V					10V				
	SIZE	RIPPLE		ESR	LC(μA)(max) after 2mins	SIZE	RIPPLE		ESR	LC(μA)(max) after 2mins
		105°C<Tx≤125°C	Tx≤105°C				105°C<Tx≤125°C	Tx≤105°C		
180	6.3X8	537	1700	45	300	6.3X8	537	1700	45	360
220	6.3X8	537	1700	45	300	8X8	810	2560	35	440
270	8X8	810	2560	35	340	8X8	810	2560	35	540
330	8X8	810	2560	35	416	8X11.5	1250	3950	17	660
470	8X8	810	2560	35	592	10X12.5	1655	5230	13	705
	8X11.5	1332	4210	15	592					
560	8X11.5	1332	4210	15	706	10X12.5	1655	5230	13	840
680	10X12.5	1721	5440	12	643	10X12.5	1655	5230	13	1020
820	10X12.5	1721	5440	12	775					
1000	10X12.5	1721	5440	12	945					

Capacitance (uF)	Rated Voltage									
	16V					20V				
	SIZE	RIPPLE		ESR	LC(μA)(max) after 2mins	SIZE	RIPPLE		ESR	LC(μA)(max) after 2mins
		105°C<Tx≤125°C	Tx≤105°C				105°C<Tx≤125°C	Tx≤105°C		
47						6.3X8	458	1450	60	300
56						8X8	598	1890	45	300
68						8X8	598	1890	45	300
82	6.3X8	512	1620	50	300	8X11.5	1050	3320	24	328
100	6.3X8	512	1620	50	320	8X11.5	1050	3320	24	400
120	8X8	670	2120	40	384	10X12.5	1367	4320	20	480
150	8X8	670	2120	40	480	10X12.5	1367	4320	20	600
180	8X11.5	1151	3640	20	576					
220	8X11.5	1151	3640	20	704					
270	10X12.5	1493	4720	16	648					
330	10X12.5	1493	4720	16	792					

Capacitance (uF)	Rated Voltage									
	25V									
	SIZE	RIPPLE		ESR	LC(μA)(max) after 2mins	SIZE	RIPPLE		ESR	LC(μA)(max) after 2mins
		105°C<Tx≤125°C	Tx≤105°C				105°C<Tx≤125°C	Tx≤105°C		
10	6.3X8	458	1450	60	300					
22	6.3X8	458	1450	60	300					
33	6.3X8	458	1450	60	300					
47	8X8	598	1890	45	300					
56	8X8	598	1890	45	300					
68	8X11.5	1050	3320	24	340					
82	8X11.5	1050	3320	24	410					
100	8X11.5	1050	3320	24	500					
	10X12.5	1367	4320	20	500					
120	10X12.5	1367	4320	20	600					
150	10X12.5	1367	4320	20	750					

☆ Tx : Ambient temperature ☆ SIZE : φDxL(mm) ☆ tanδ:20°C,120Hz. ☆Ripple Current:(mA/rms),105°C .100KHz ☆ ESR(mΩ).20°C.100KHz