GT series

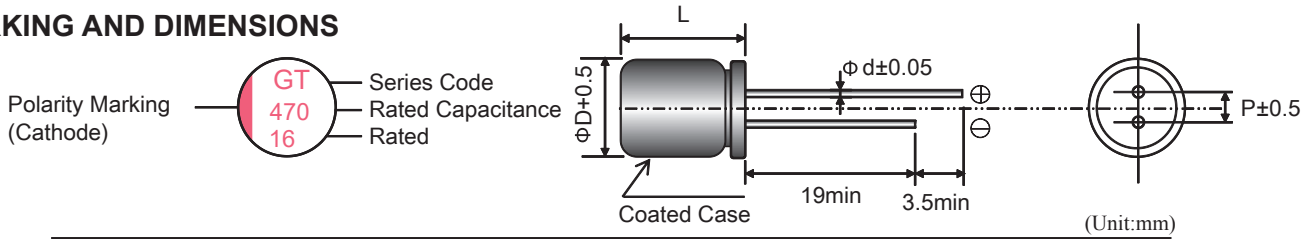
- High temperature, low ESR,High ripplie current capability
- Rated voltage :4~25V
- Endurance:1,000hours at 125℃
- Applications: DC-DC Converters,Voltage Regulators,Decouping Applications for Computer Motherboards,etc.
- ROHS compliant
- Halogen Free compliant

SPECIFICATIONS

Items	Conditions	Characteristics	
Category Temperature Range	—	-55 to +125℃	
Rated Voltage Range	—	4 ~ 25V	
Capacitance Tolerance	at 20℃,120HZ	±20%(M)	
Surge Voltage	at 125℃	Rated voltage ×1.15V	
Leakage Current	at 20℃after 2 minutes	I ≦ 0.2CV or 300(uA) Whichever is greater measured,after 2minutes application of rated working voltage at +20℃. Please see the attached characteristics list	
Dissipation Factor (tan δ)	at 20℃,120Hz	Please see the attached characteristics list	
Characteristics of Impedance at low, high temperature	at -55℃,100kHz	Z(-55℃)/Z(+20℃)	≦ 1.25
	at -25℃,100kHz	Z(-25℃)/Z(+20℃)	≦ 1.15
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃after the rated voltage is applied for 1,000 hours at 125℃.	Appearance	NO significant damage.
		Capacitance change	≦ ±20% of the initial value.
		DF(tanδ)	≦ 150% of the initial specified value.
		ESR	≦ 150% of the initial specified value.
		Leakage current	≦ The initial specified value.
Damp Heag (Steady State)	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to subjecting them to store at 60℃, 90 to 95% RH for 1,000 hours ,without DC applied.	Appearance	NO significant damage.
		Capacitance change	≦ ±20% of the initial value.
		DF(tanδ)	≦ 150% of the initial specified value.
		ESR	≦ 150% of the initial specified value.
		Leakage current	≦ The initial specified value.
Surge Voltage	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 105℃ for 30 seconds through aprotective resistor (R=1kΩ) and discharge for 5 minutes 30seconds	Appearance	NO significant damage.
		Capacitance change	≦ ±20% of the initial value.
		DF(tanδ)	≦ 150% of the initial specified value.
		ESR	≦ 150% of the initial specified value.
		Leakage current	≦ The initial specified value.

※ Note:If any doubt arises,measure the leakage current after following voltage treatment.
Voltage treatment :DC rated voltage are applied to the capacitors for 120 minutes at 105℃.

MARKING AND DIMENSIONS



(Unit:mm)

Size	6.3x6	6.3x8	8x6	8x8	8x12	10x12
ΦD	6.3	6.3	8.0	8.0	8.0	10.0
L	L+1.0 max	L+1.0 max	L+1.0 max	L+1.5 max	L+1.0 max	L+1.0 max
Φd	0.45	0.5	8.0	8.0	0.6	0.6
P	0.45	2.5	8.0	8.0	3.5	5.0

GT SERIES STANRD CHARACTERISITICS LIST

Rated voltage (S.V.)	Cap (μF)	Size DXL	Leakage current (uA) max. ※2	ESR (mΩ) max. 100k to 300kHz /20℃	Rated Ripple Current (mA rms)		D.F. (tanδ) max. 120Hz /20℃
					105℃ 100kHz	125℃ 100kHz	
4 (4.6)	100	6.3×6	300	40	1900	633	0.12
	150	6.3×6	300	45	2100	700	0.12
	220	6.3x8	300	40	2500	833	0.12
	330	6.3x8	300	40	2500	833	0.12
	560	8x8	448	35	3200	1067	0.12
	820	10x12	656	20	4320	1440	0.12
	1000	10x12	800	15	5000	1667	0.12
	1,200	10x12	960	15	5000	1667	0.12
6.3 (7.2)	82	6.3×6	300	45	1700	567	0.12
	100	6.3×6	300	40	1800	600	0.12
	120	6.3×6	300	40	1800	600	0.12
	150	6.3x8	300	40	2560	853	0.12
	220	6.3x8	300	40	2560	853	0.12
	470	6.3x8	592	20	4210	1403	0.12
	560	8x8	706	15	4300	1433	0.12
	820	8x12	1,033	15	5100	1700	0.12
	1000	10x12	1,260	15	5440	1813	0.12
10 (11.5)	56	6.3×6	300	40	1800	600	0.12
	120	8x6	300	35	2560	853	0.12
	150	8x6	300	35	2560	853	0.12
	330	8x12	660	20	3800	1267	0.12
	560	10x12	1,120	13	5230	1743	0.12
16 (18.4)	39	6.3×6	300	50	1620	540	0.12
	47	6.3×6	300	50	1620	540	0.12
	82	6.3x8	300	40	2120	707	0.12
	100	6.3x8	320	25	2820	940	0.12
	100	6.3x8	320	40	2120	707	0.12
	180	8x8	576	20	3400	1133	0.12
	270	8x12	864	20	3640	1213	0.12
	330	10x12	1,056	16	4100	1367	0.12
	470	10x12	1,504	16	4100	1367	0.12
25 (29)	33	6.3x8	300	30	2000	667	0.12
	56	8x8	300	28	3100	1033	0.12
	100	8x12	500	30	3130	1043	0.12
	220	10x12	1,100	28	3300	1100	0.12
	330	10x12	1,650	20	3500	1167	0.12

※ 1. Capacitance tolerance : ±20%(M)
※ 2. After 2 minutes

FREQUENCY COEFFICIENT FOR RIPPLE CURRENT

Frequency	120Hz ≦ f < 1kHz	1kHz ≦ f < 10kHz	10kHz ≦ f < 100kHz	100kHz ≦ f < 500kHz
Coefficient	0.05	0.3	0.7	1