

GSA Series

- Non-solvent proof.
- Height 7mm.
- For CAR-Audio, Tuner.

- 85°C 2,000Hrs assured.

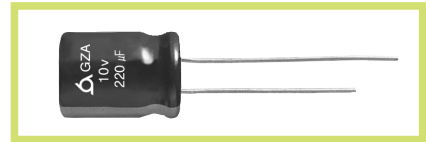
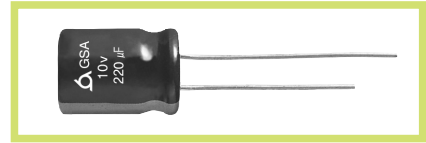
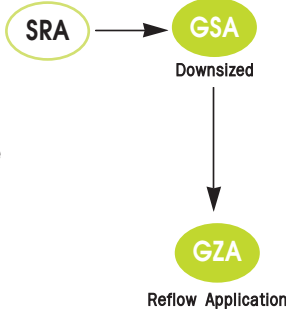
- RoHS compliant.
- Halogen-free capacitors are also available.

GZA Series

- Solvent proof.
- Height 7mm.
- For CAR-Audio, Tuner.

- 85°C 2,000Hrs assured.

- RoHS compliant.
- Halogen-free capacitors are also available.

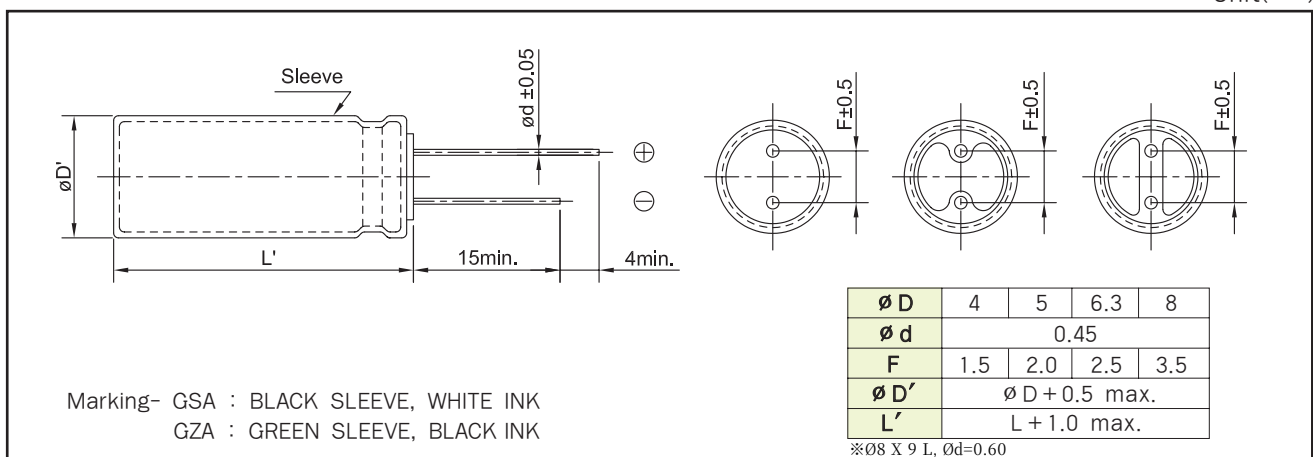


SPECIFICATIONS

Item	Characteristics							
Rated Voltage Range	6.3 ~ 63 V _{DC}							
Operating Temperature Range	-40 ~ +85°C							
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)							
Leakage Current	I=0.01CV(μA)or 3μA, whichever is greater. where, I:Max. Leakage current(μA) C:Nominal capacitance(μF), V:Rated voltage(V _{DC}) (at 20°C, 2 minutes)							
Dissipation Factor(Tanδ)	Rated Voltage(V _{DC})	6.3	10	16	25	35	50	63
	Tanδ(Max.)	0.24	0.20	0.16	0.14	0.12	0.11	0.08
	※6.3 VB 220(0.27) , 16 VB 100(0.19) (at 20°C, 120Hz)							
Temperature Characteristics (Max. Impedance ratio)	Rated Voltage(V _{DC})	6.3	10	16	25	35	50~63	
	Z(-25°C)/Z(+20°C)	4	3	2	2	2	2	
	Z(-40°C)/Z(+20°C)	8	6	4	3	3	4 (at 120Hz)	
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 85°C. Capacitance change ≤ ±25% of the initial value (where, ±20% for GZA Series) Tanδ ≤ 200% of the initial specified value Leakage current ≤ The initial specified value							
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 85°C without voltage applied.The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≤ ±20% of the initial value Tanδ ≤ 200% of the initial specified value Leakage current ≤ 200% of initial specified value							
Others	Satisfied characteristics KS C IEC 60384-4							

DIMENSIONS OF GSA/GZA Series

Unit(mm)



RATINGS OF GSA / GZA Series

μF \ V_{DC}	6.3	10	16	25	35	50	63
0.1						4×7 1.3	4×7 1.3
0.15						4×7 2.0	4×7 2.0
0.22						4×7 2.9	4×7 3.0
0.33						4×7 3.5	4×7 3.7
0.47						4×7 5.0	4×7 5.4
0.68						4×7 7.1	4×7 7.6
1						4×7 10	4×7 11
1.5						4×7 12	4×7 13
2.2						4×7 15	4×7 17
3.3					4×7 17	4×7 18	4×7 20
4.7				4×7 19	4×7 20	4×7 22	4×7 25
6.8				4×7 20	4×7 23	5×7 25	5×7 28
10			4×7 25	4×7 26	4×7 27	5×7 31	6.3×7 38
15			4×7 28	4×7 30	5×7 36	6.3×7 48	6.3×7 51
22	4×7 31	4×7 32	4×7 34	5×7 41	5×7 44	6.3×7 58	6.3×7 62
33	4×7 35	4×7 38	5×7 45	5×7 50	6.3×7 64	6.3×7 68	8×7 72
47	4×7 42	5×7 50	5×7 55	6.3×7 65	6.3×7 70	8×7 84	8×9 88
68	4×7 56	5×7 60	6.3×7 83	6.3×7 85	8×7 91	8×9 98	
100	5×7 68	6.3×7 80	6.3×7 95	6.3×7 101	8×9 108		
150	6.3×7 90	6.3×7 95	8×7 116	8×7 127			
220	6.3×7 120	6.3×7 122	8×7 140	8×9 150			
330	6.3×7 141	8×7 152	8×9 167				
470	8×7 168	← Case Size $\phi D \times L$ (mm) ← Rated Ripple Current (mA rms/85°C, 120Hz)					

RECOMMENDED REFLOW SOLDERING CONDITIONS(For GZA Series)

Surface temp.(top of the capacitor) (°C) 217 25 Time (sec) Preheat Soldering Peak temp. (The following Recommend Range) TEMPERATURE PROFILE	Time of Preheat temp. (from 150°C to 200°C)	Time to be Maintained Above 217°C	Time to be Maintained Above 230°C	Peak Temp.	Reflow Cycle
	60 ~ 100 Sec	60 ~ 70 Sec	20 ~ 30 Sec	250°C (10 Sec ↓)	1 TIME