

**SURGE**

Components, Inc.

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Surface Mount Type 105°C Standard

CAE-NT series (6.3 to 63V) has stable characteristics at the temperature of wide range (-55 to +105°C), and solvent proof (within 2 minutes).

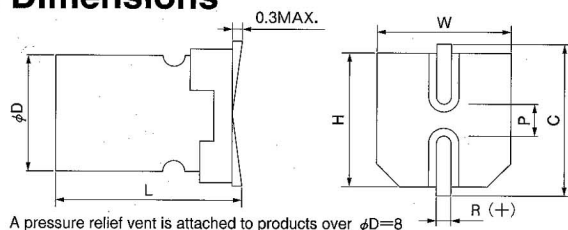
Specifications

**RoHS
Compliant**

*See Part Number System for Details

Items		Specifications							
Rated voltage (V)		6.3	10	16	25	35	50	63	100
Operating temperature range (°C)		-55 to +105							-40 to +105
Capacitance tolerance (%)		±20 (120Hz)							
Tangent of loss angle (tan δ) (MAX.) (120Hz)	φ4 to φ6.3	0.24	0.20	0.16	0.14	0.12	0.10	0.12	0.10
	φ8 to φ16	0.28	0.24	0.20	0.16	0.14	0.12	0.12	0.10
		0.02 to be added to the above value every time nominal capacitance exceeds 1000 μF.							
Leakage current (L.C.) (μA/after 2min.) (MAX.)		The greater value of either 0.01CV or 3							
Impedance (120Hz) ratio at low temperature (MAX.)	Z-40°C/Z20°C	3	3	2	2	2	2	2	3
	Z-55°C/Z20°C	8	5	4	3	3	3	3	—
High-temperature load 105°C rated voltage applied	Test time	2000hrs. (φD ≤ 6.3, φ10×7.7 : 1000hrs.)							
	ΔC/C	Within ± 25% of the initial value							
	tan δ	≤ Twice the initial standard							
	L.C.	≤ The initial standard							
Resistance to soldering heat	Test	Capacitors placed on a 250°C hot plate for 30 seconds with their electrode terminals facing downward will fulfill the following conditions after being cooled to room temperature.							
	ΔC/C	Within ± 10% of the initial value							
	tan δ	≤ The initial standard							
	L.C.	≤ The initial standard							
Other characteristics		Conform to IEC 60384-18							

Dimensions



(Unit : mm)

D+0.5MAX.	L	W ±0.2	H ±0.2	C ±0.2	R	P ±0.2
4	5.4 ^{+0.1} _{-0.2}	4.3	4.3	5.0	0.5 to 0.8	1.0
5	5.4 ^{+0.1} _{-0.2}	5.3	5.3	6.0	0.5 to 0.8	1.4
6.3	5.4 ^{+0.1} _{-0.2}	6.6	6.6	7.3	0.5 to 0.8	1.0
4	6.0 ±0.3	4.3	4.3	5.0	0.5 to 0.8	2.2
6.3	6.0 ±0.3	6.6	6.6	7.3	0.5 to 0.8	2.2
6.3	7.7 ±0.3	6.6	6.6	7.3	0.5 to 0.8	2.2
8	10.2 ±0.3	8.3	8.3	9.0	0.7 to 1.0	3.2
10	7.7 ±0.3	10.3	10.3	11.0	1.1 to 1.4	4.6
10	10.2 ±0.3	10.3	10.3	11.0	1.1 to 1.4	4.6
12.5	13.5 ±0.5	12.8	12.8	13.5	1.1 to 1.4	4.6
16	16.5 ±0.5	16.3	16.3	17.0	1.8 to 2.1	7.0

Size List

μF	V	6.3	10	16	25	35	50	63	100
0.1 to 0.47							4×5.4 0.7 to 3.5	4×5.4 0.7 to 3.5	
1.0							4×5.4 7	4×5.4 7	4×6.0 7
2.2							4×5.4 11	4×5.4 11	6.3×6.0 14
3.3							4×5.4 13	5×5.4 14	6.3×6.0 20
4.7					4×5.4 13	4×5.4 14	5×5.4 16	5×5.4 16	6.3×6.0 25
10				4×5.4 18	5×5.4 20	5×5.4 21	6.3×5.4 24	6.3×5.4 24	6.3×7.7 35
22	4×5.4 22	5×5.4 25	5×5.4 27	6.3×5.4 36	6.3×5.4 38	6.3×6.0 42	6.3×7.7 49	6.3×7.7 49	8×10.2 84
33	5×5.4 27	5×5.4 30	6.3×5.4 40	6.3×5.4 44	6.3×6.0 42	6.3×7.7 60	8×10.2 112	10×10.2 133	
47	5×5.4 33	6.3×5.4 41	6.3×5.4 48	6.3×6.0 48	6.3×6.0 49	6.3×7.7 63	8×10.2 119	12.5×13.5 240	
68							8×10.2 126	12.5×13.5 245	
82							10×7.7 140		
100	6.3×5.4 50	6.3×5.4 53	6.3×5.4 60	6.3×7.7 91	6.3×7.7 84	8×10.2 140	10×10.2 196	16×16.5 490	
150		6.3×6.0 62	6.3×7.7 95	8×10.2 140	10×7.7 155			16×16.5 500	
220	6.3×6.0 67	6.3×7.7 105	6.3×7.7 105	8×10.2 175	8×10.2 190	10×10.2 220	12.5×13.5 287		
330	6.3×7.7 105	8×10.2 195	8×10.2 195	8×10.2 220	10×10.2 300	12.5×13.5 365			
390			10×7.7 195			12.5×13.5 380			
470	8×10.2 210	8×10.2 210	8×10.2 230	10×10.2 300	12.5×13.5 410		16×16.5 630		
680		10×7.7 210		10×10.2 310		12.5×13.5 430			
1000	8×10.2 230	10×10.2 310			12.5×13.5 460		16×16.5 655		
1500	10×10.2 310		12.5×13.5 500		16×16.5 740				
2200		12.5×13.5 510							
3300	12.5×13.5 520		16×16.5 840						
4700		16×16.5 880							
6800	16×16.5 930								

Model No. 16CAE470NT

Capacitance symbol

Rated voltage

φDXL

Ripple current
mA r.m.s.
(120Hz, 105°C)

*Add "V" suffix for optional RoHS compliant parts