

CHIP TYPE SERIES

TS13C2

FEATURES

- Bi-polar with general temperature 85°C
- Lead-free reflow soldering is available subject to customer's request.

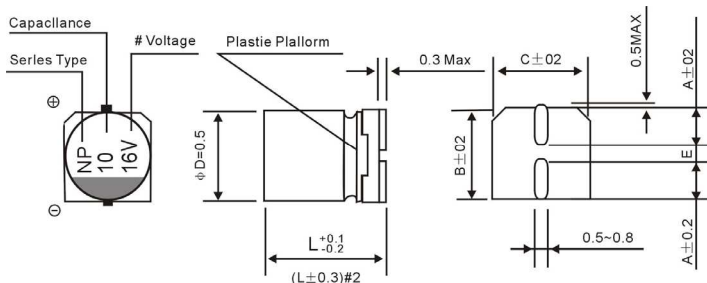
Non-Polarized Series



◆ Specifications

I T E M S		P E R F O R M A N C E C H A R A C T E R I S T I C S						
Operating Temperature Range	-40°C ~ +85°C							
Voltage Range	6.3~50V							
Capacitance Range	0.1~100 μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.05CV or 10 μA, whichever is greater.							
Tan δ	Measurement frequency : 120Hz, Temperature : 20°C							
	Rated voltage (V)	6.3	10	16	25	35	50	
	Tan δ (MAX)	0.24	0.20	0.17	0.17	0.15	0.15	
Stability at Low Temperature	Measurement frequency : 120Hz							
	Rated voltage (V)	6.3	10	16	25	35	50	
	Impedance ratio	Z-25°C / Z+20°C	4	3	2	2	2	2
	ZT / Z20 (MAX)	Z-40°C / Z+20°C	8	6	4	4	3	3
Load Life	After 1000 hours' application of rated voltage at 85°C with the polarity inverted every 250 hours, capacitors meet the characteristics requirements listed at right	Capacitance Change	Within ± 20% of initial value					
		Tan δ	200% or less of initial specified value					
		Leakage Current	Initial specified value or less					
Self Life	After leaving capacitors under no load at 85°C for 1000 hours, they meet the specified value for load life characteristics listed above.							
Resistance to Soldering Heat	After reflow soldering according and restored at room temperature, they meet the characteristics requirements listed at right.	Capacitance Change	Within ± 10% of initial value					
		Tan δ	Initial specified value or less					
		Leakage Current	Initial specified value or less					
Applicable Standards	JIS C-5141 and JIS C-5102.							

◆ Chip type



∅DxL	4x5.4	5x5.4	6.3x5.4	6.3x7.7
A	1.8	2.1	2.4	2.4
B	4.3	5.3	6.6	6.6
C	4.3	5.3	6.6	6.6
E±0.2	1.0	1.3	2.2	2.2
L	5.4	5.4	5.4	7.7

#1 Voltage mark for 6.3V is [6]

Re: Date code and series type-1st digit for year; 2nd digit for Quarter; 4 quarter codes in one year are 1,4,7,0; 3rd character for series, NP Series=N

TS13C2

◆ Case Size

WV/V Cap/ μ F		6.3		10		16		25		35		50	
		0J		1A		1C		1E		1V		1H	
0.1	0R1	--	--	--	--	--	--	--	--	--	--	4×5.4	1.0
0.22	R22	--	--	--	--	--	--	--	--	--	--	4×5.4	2.0
0.33	R33	--	--	--	--	--	--	--	--	--	--	4×5.4	2.8
0.47	R47	--	--	--	--	--	--	--	--	--	--	4×5.4	4.0
1	010	--	--	--	--	--	--	--	--	--	--	4×5.4	8.4
2.2	2R2	--	--	--	--	--	--	--	--	4×5.4	8.4	5×5.4	13
3.3	3R3	--	--	--	--	--	--	5×5.4	12	5×5.4	16	5×5.4	17
4.7	4R7	--	--	--	--	4×5.4	12	5×5.4	16	5×5.4	18	6.3×5.4	20
10	100	--	--	4×5.4	17	5×5.4	23	6.3×5.4	27	6.3×7.7	29	6.3×7.7	36
22	220	5×5.4	28	6.3×5.4	33	6.3×5.4	37	6.3×7.7	50	6.3×7.7	54	--	--
33	330	6.3×5.4	37	6.3×5.4	41	6.3×5.4	49	6.3×7.7	61	--	--	--	--
47	470	6.3×5.4	45	6.3×7.7	61	6.3×7.7	75	--	--	--	--	--	--
100	101	6.3×7.7	82	6.3×7.7	85	--	--	--	--	--	--	Case size	Allowable ripple

Allowable Ripple (mA rms) at 85°C 120Hz

◆ Frequency coefficient of allowable ripple current

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz~
Coefficient	0.70	1.00	1.17	1.36	1.50

Note: Specification are subject to change without notice. For more detail and update, please visit our website.