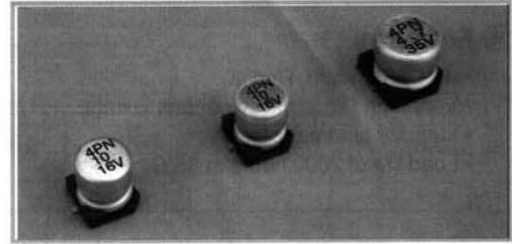


# CN SERIES

Chip type, For surface mounting

- SMD TYPE Reflow Soldering is available
- Life 2000 hours at 85°C Non-Polarized
- Available For High Density Mounting



## Characteristics

<b>Voltage Range</b>	6.3 to 50VDC						
<b>Capacitance Range</b>	0.1 to 47uF						
<b>Temperature Range</b>	-40 to +85°C						
<b>Capacitance Tolerance</b>	+20% -20% (at 20°C, 120Hz)						
<b>Leakage Current</b>	I ≤ 0.01CV or 3uA, whichever is greater 2 minutes after Rated Voltage applied						
<b>Dissipation Factor (tan δ)Max</b>	Rated Voltage (V)	6.3	10	16	25	35	50
	(tan δ)	0.3	0.24	0.2	0.16	0.15	0.15
(at 20°C, 120Hz)							
<b>Stability at Low Temperature</b>	Impedance ration at 120Hz						
	Rated Voltage (V)	6.3	10	16	25	35	50
	Z-25°C/Z 20°C	4	3	2	2	2	2
Z-40°C/Z 20°C	8	6	4	4	3	3	
<b>Load Life</b>	After the rated voltage has been applied for 2000 hours at 85°C	Capacitance change	Within ±25% of initial value				
		D.F. tanδ	150% or less of initial specified value				
		Leakage current	Less than Initial specified value				
<b>Shelf Life</b>	After storage for 500 hours at 85°C, with no voltage applied and being stabilized at +20°C, Capacitor shall meet the limit specified in load life.						

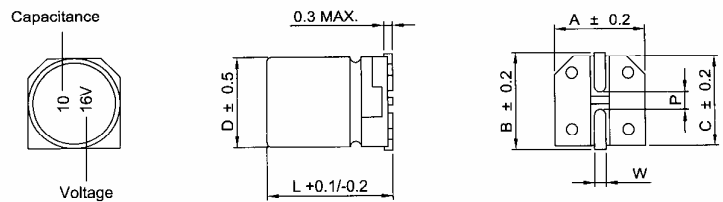
## Case size & Maximum Ripple Current

mA rms 85°C 120Hz

Cap. uF	6.3		10		16		25		35		50	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1											A	1.0
0.22											A	2.0
0.33											A	2.8
0.47											A	4.0
1											A	8.4
2.2									A	8.4	B	13
3.3							B	12	B	16	B	17
4.7					A	12	B	16	B	18	C	20
10			A	17	B	23	C	27	C	29		
22	B	28	C	33	C	37						
33	C	37	C	41	C	49						
47	C	45										

## Diagram of dimensions

SIZE	Dφ	L	A	C	B	W	P
A	4	5.5	4.3	4.3	5.1	0.5~0.8	1.0
B	5	5.5	5.3	5.3	5.9	0.5~0.8	1.4
C	6.3	5.5	6.6	6.6	7.2	0.5~0.8	2.0



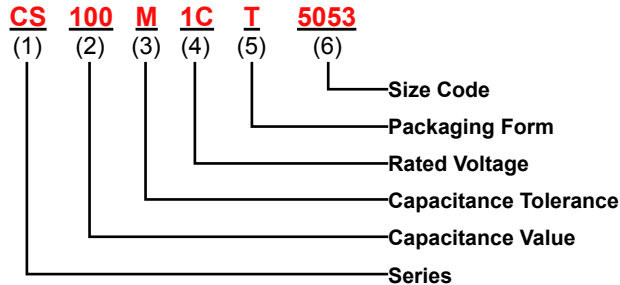
# ORDERING INFORMATION (SMD)



Daewoo Components Corp.

## Surface Mount Part Numbering System Example:

**CS** = SMD Series, **100** = 10 $\mu$ F, **M** =20% Tolerance, **1C** = W.V = 16 Volts, **TR** = Tape & Reel, **5053** = Case size (Dia x H) = 5.0 x 5.3mm



### (1) Series

See quick guide on website.  
 Surface mount (CS, CU, CZ, CZH, CN, CK)  
 Example: CS = 2000hrs @ 85°C  
 CU = 1000hrs @ 105°C

### (5) Packaging Form Code

Surface Mount	T	Tape & Reel for Surface Mount
	XX	Tape & Reel SMD 13" Reels (330mm)

### (2) Capacitance Value Code

Capacitance expressed in micro Farads ( $\mu$ F)  
 First two digits are significant figures  
 Third digit denotes the number of zeros  
 Use R for decimal point for values less than 10 $\mu$ F

#### Examples:

CODE	Capacitance
R10	0.1 $\mu$ F
R68	0.68 $\mu$ F
1R0	1.0 $\mu$ F
100	10 $\mu$ F
680	68 $\mu$ F
471	470 $\mu$ F
102	1000 $\mu$ F
103	10000 $\mu$ F

### (6) Size Code

Size Code	Dimensions (mm)	
	Diameter	Length
3054	3.0	5.4
4053	4.0	5.3
4055	4.0	5.5
5053	5.0	5.3
5055	5.0	5.5
6353	6.3	5.3
6355	6.3	5.5
6357	6.3	5.7
6377	6.3	7.7
8069	8.0	6.3
8010	8.0	10.0
1010	10.0	10.0
1213	12.5	13.5
1216	12.5	16.0

### (3) Capacitance Tolerance Code

CODE	Cap. Tol.
M	$\pm$ 20%

### (4) Rated Voltage Code

CODE	Voltage	CODE	Voltage
	4.0V	2A	100V
0J	6.3V	2C	160V
1A	10V	2D	200V
1C	16V	2E	250V
1E	25V	2V	350V
1V	35V	2G	400V
1H	50V	2W	450V