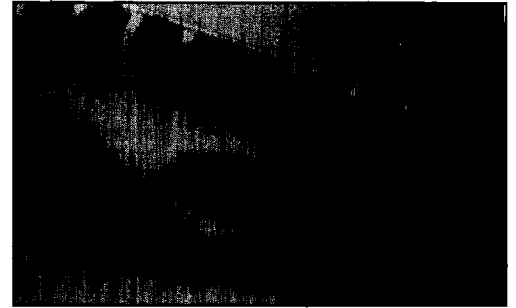


## FEATURES

- LOW PROFILE 1.2MM MAX. HEIGHT
- EIA "A" (3216/1206) AND "B" (3528) SIZES
- MOLDED CONSTRUCTION FOR EASY PICK AND PLACEMENT
- LOW IMPEDANCE AT HIGH FREQUENCY



SURFACE MOUNT

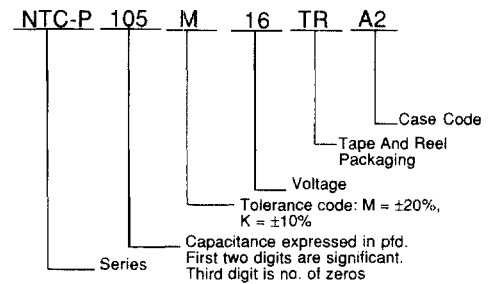
## SPECIFICATIONS AND PERFORMANCE CHARACTERISTICS

Capacitance Range	0.1μF to 22μF		
Capacitance Tolerance	±10%(K) Standard, ±20%(M) Optional		
Rated Voltage Range	4 Vdc to 20 Vdc		
Operating Temperature	-55°C to + 85°C (to +125°C With Derating)		
Dissipation Factor	0.1μF to 4.7μF = 4.0% Max.	6.8μF to 22μF = 8.0% Max.	
Leakage Current @ +25°C (After 5 Minutes of Rated Voltage)	Not More Than 0.01 Cv Or 0.5μA, whichever is greater		
Capacitance Change With Temperature	-55°C	+85°C	+125°C
	ΔC -12%	ΔC +12%	ΔC +15%

## STANDARD RATINGS AND CASE SIZE DISTRIBUTION

Rated Voltage @ +85°C	4	6.3	10	16	20
Surge Voltage @ +85°C	5.2	8	13	20	26
Derated Voltage @ +125°C	2.5	4	6.3	10	13
Derated Surge Voltage at +125°C	3.2	5	8	12	16
Capacitance μF	Code	Case Sizes	Case Sizes	Case Sizes	Case Sizes
0.1	104				A2
0.15	154				A2
0.22	224				A2
0.33	334				A2
0.47	474				A2
0.68	684			A2	A2
1.0	105			A2	A2
1.5	155		A2	A2	A2
2.2	225	A2	A2	A2	A2
3.3	335	A2	A2	A2	
4.7	475	A2	A2	A2	
6.8	685	A2	A2		B2*
10	106	A2	A2		B2*
15	156		B2*		
22	226	B2*			

## PART NUMBERING SYSTEM



## RIPPLE CURRENT/VOLTAGE RATINGS:

$$I_{max} = \sqrt{\frac{P_d}{ESR}} \quad V_{max} = Z \cdot \sqrt{\frac{P_d}{ESR}}$$

$I_{max}$  = Ripple Current rating (Arms)

$P_d$  = Power dissipation (watt)

ESR = Equivalent series resistance (ohm)

$V_{max}$  = Ripple voltage rating (Vrms)

$Z$  = The capacitors impedance (ohm) =  $\sqrt{(ESR)^2 + (XL - XC)^2}$

## POWER DISSIPATION (FREE AIR) & EQUIVALENT SERIES INDUCTANCE (ESL)

Case Code	Pd MAX. (W)	ESL (nH)
A2	0.065	1.2
B2	0.075	1.5

## RIPPLE CURRENT CORRECTION FACTOR:

Ambient Temperature	+25C	+55C	+85C	+105C	+125C
Correction Factor	1.0	0.90	0.80	0.40	0.15

## MAX. ESR (ohm) @ 100 KHz, +25°C

Rated Voltage @ +85°C	4	6.3	10	16	20
Capacitance μF	Code	Case Sizes	Case Sizes	Case Sizes	Case Sizes
0.1	104				A2=40.0
0.15	154				A2=35.0
0.22	224				A2=35.0
0.33	334				A2=30.0
0.47	474				A2=27.0
0.68	684			A2=25.0	A2=15.0
1.0	105			A2=25.0	A2=15.0
1.5	155		A2=25.0	A2=20.0	A2=15.0
2.2	225	A2=25.0	A2=20.0	A2=15.0	A2=15.0
3.3	335	A2=18.0	A2=15.0	A2=15.0	
4.7	475	A2=16.0	A2=15.0	A2=10.0	
6.8	685	A2=15.0	A2=10.0		B2=8.0*
10	106	A2=10.0	A2=10.0		B2=8.0*
15	156		B2=7.0*		
22	226	B2=6.0*			

\* B2 SIZE IS UNDER DEVELOPMENT. PLEASE CONTACT NIC FOR AVAILABILITY

