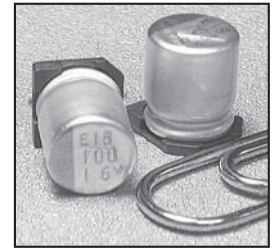


- CYLINDRICAL V-CHIP CONSTRUCTION FOR SURFACE MOUNTING
- HIGH TEMPERATURE RANGE (+135°C)
- LOW ESR AND HIGH RIPPLE CURRENT
- 8x10.8 ~ 10x10.8mm CASE SIZES
- REFLOW SOLDERING RATED TO +260°C (ALL SIZES)



**RoHS  
Compliant**

includes all homogeneous materials

\*See Part Number System for Details

### CHARACTERISTICS

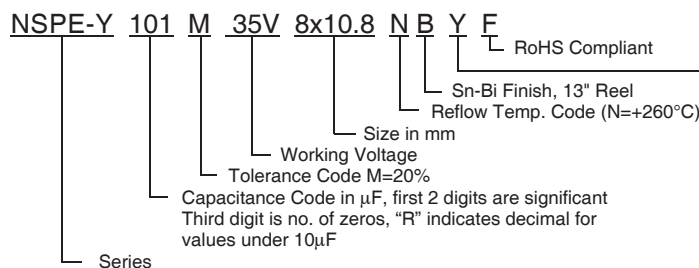
Rated Voltage Range	25 ~ 63Vdc				
Rated Capacitance Range	22 ~ 270μF				
Operating Temp. Range	-55 ~ +135°C				
Capacitance Tolerance	±20% (M)				
Max. Leakage Current After 2 Minutes @ 20°C	Less than 0.05CV or 100μA whichever is greater				
Working and Surge Voltage Ratings	W.V. (Vdc)	25	35	50	63
	S.V. (Vdc)	32	44	63	79
Tan δ @ 120Hz/20°C		0.16			
Impedance Ratio	Z -55°C/Z +20°C	1 ~ 2.5			
	Z +125°C/Z +20°C	0.6 ~ 1.0			
Load Life Test @ 135°C and Rated Voltage	W.V. (Vdc)	25	35	50	63
	Test Duration	2000 Hrs. ±12 Hrs.			
	Capacitance Change	Within ±30% of initial measured value			
	Tan δ and ESR	Less than 200% of specified max. value			
	Leakage Current	Less than specified max. value			
	ESR	Less than 200% of specified max. value			

### STANDARD PRODUCTS AND CASE SIZES Dφ x L (mm)

PART NUMBER	Cap. (μF)	Working Voltage	Case Size (D X L) mm	Max. Tan δ 120Hz/20°C	Max. ESR (mΩ) AT 100KHz/20°C	Max. Ripple Current (mA rms) AT 100KHz/135°C	Load Life Hours (+135°C)
NSPE-Y151M25V8X10.8NBF	150	25	8X10.8	0.16	27	1060	2000
NSPE-Y271M25V10X10.8NBF	270		10X10.8	0.16	22	1220	2000
NSPE-Y101M35V8X10.8NBF	100	35	8X10.8	0.16	30	1010	2000
NSPE-Y151M35V10X10.8NBF	150		10X10.8	0.16	23	1180	2000
NSPE-Y330M50V8X10.8NBF	33	50	8X10.8	0.16	35	940	2000
NSPE-Y560M50V10X10.8NBF	56		10X10.8	0.16	25	1110	2000
NSPE-Y220M63V8X10.8NBF	22	63	8X10.8	0.16	40	870	2000
NSPE-Y330M63V10X10.8NBF	33		10X10.8	0.16	30	1010	2000

For Automotive Applications See Part Numbering System

### PART NUMBER SYSTEM



Optional: Suitable for automotive equipment, sourced to special production and inspection at TS-16949 certified production site

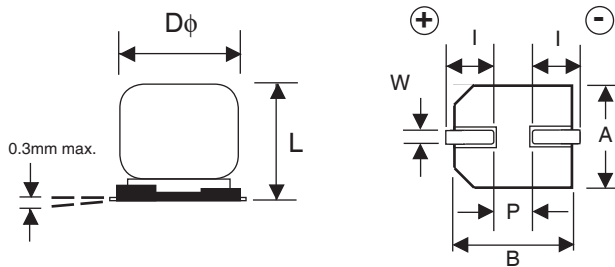
### PRECAUTIONS

Please review the notes on correct use, safety and precautions found on pages T10 & T11 of NIC's Electrolytic Capacitor catalog.  
Also found at [www.niccomp.com/precautions](http://www.niccomp.com/precautions)  
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: [tpmg@niccomp.com](mailto:tpmg@niccomp.com)

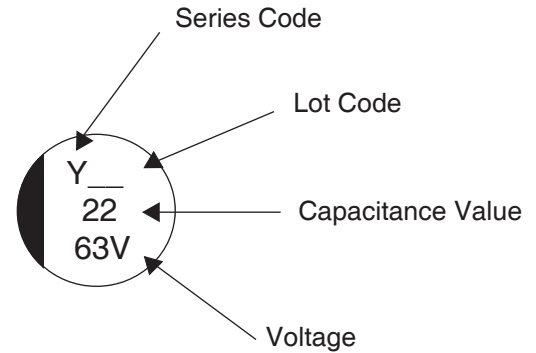


### DIMENSIONS (mm)

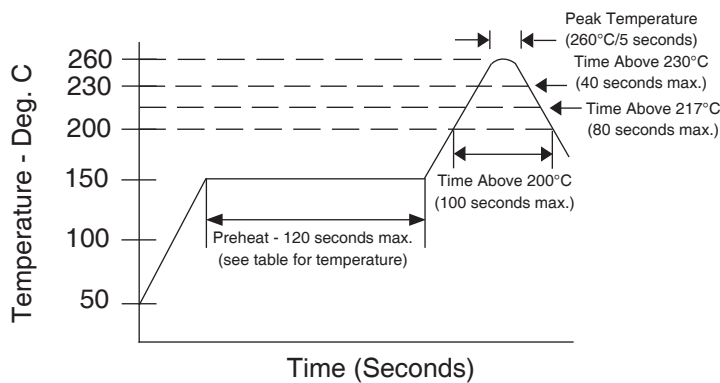
Case Size	D $\phi$ $\pm 0.5$	L max.	A, B $\pm 0.2$	W	I $\pm 0.2$	P $\pm 0.2$
8x10.8	8.0	10.8	8.3	0.7 ~ 1.0	2.9	3.2
10x10.8	10	10.8	10.3	1.0 ~ 1.4	3.2	4.6



### Part Marking

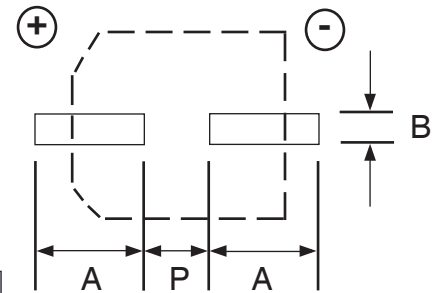


### RECOMMENDED REFLOW SOLDERING PROFILE\*



### LAND PATTERN DIM. (mm)

Case Dia.	A	B	P
8	4.1	2.1	2.8
10	4.4	2.5	4.3



### PEAK TEMPERATURE AND DURATION

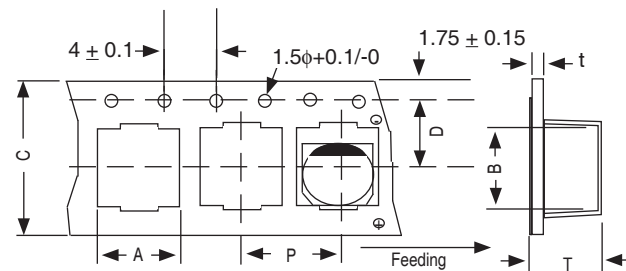
Diameter	Preheat (120 sec. max.)	Time above 200°C	Time above 217°C	Time above 230°C	Peak Temperature
6.3 ~ 10mm	150°C ~ 190°C	100 sec. max.	80 sec. max.	40 sec. max.	260°C/5 sec.

\*Two reflow passes are permissible with a cool down to room temperature required between the first and second pass.

### TAPING SPECIFICATIONS (mm)

- Both Leader and Trailer tape: Minimum 40mm (1.57") empty carrier tape pockets.
- Leader tape: Approximately 20cm of cover tape at leader.
- Connection: Maximum 3 connections (slices) per reel.

Case Size	A $\pm 0.5$	B $\pm 0.5$	C $\pm 0.3$	D $\pm 0.1$	P $\pm 0.1$	T $\pm 0.2$	t max.
8x10.8	8.7	8.7	24.0	11.5	16.0	11.1	0.6
10x10.8	10.7	10.7	24.0	11.5	16.0	11.2	0.6



### REEL DIMENSIONS (mm)

Case Size	W $\pm 1.0$	Qty per Reel 13" (330mm)
8x10.8	26	300
10x10.8	26	300

