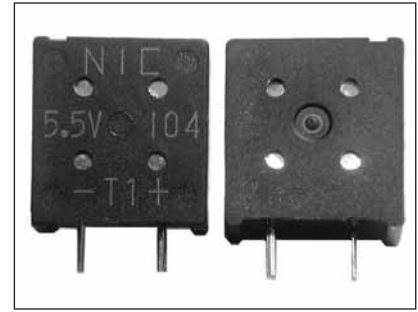


### FEATURES

- DOUBLE LAYER CONSTRUCTION
- POWER BACK-UP FOR CMOS RAM (UP TO 50µA DISCHARGE CURRENT)
- TAPE AND REEL PACKAGING
- SUITABLE FOR FLOW SOLDERING
- LEAD-FREE FINISH

**RoHS Compliant**  
includes all homogeneous materials

\*See Part Number System for Details



### CHARACTERISTICS

|  |                                      |   |
|--|--------------------------------------|---|
| Rated Voltage Range                              | 3.5 ~ 6.5VDC                         |   |
| Rated Capacitance Range                          | 0.01F ~ 0.22F (10,000µF ~ 220,000µF) |   |
| Operating Temp. Range                            | -25°C ~ +70°C                        |   |
| Capacitance Tolerance                            | +80%/-20% (Z)                        |   |
| Load Life Test @ 70°C<br>1,000 hours             | Δ Capacitance Change                 | Less than ±30% of initial measured value      |
|  | Maximum ESR                          | Less than 200% of the specified maximum value |
|  | Current at 30 minutes                | Less than 200% of the specified maximum value |
| Temperature Cycling<br>(5 cycles, -25 ~ +70°C)   | Δ Capacitance Change                 | Within +80%/-20% of specified value           |
|  | Maximum ESR                          | Less than specified maximum value             |
|  | Current at 30 minutes                | Less than specified maximum value             |
| Humidity Resistance<br>(240 hours @ 40°C/90% RH) | Δ Capacitance Change                 | Less than ±20% of initial measured value      |
|  | Maximum ESR                          | Less than 120% of the specified maximum value |
|  | Current at 30 minutes                | Less than 120% of the specified maximum value |

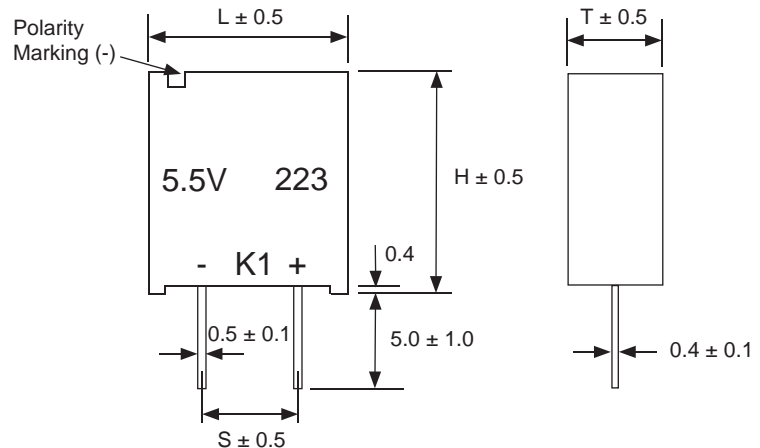
### STANDARD VALUES AND SPECIFICATIONS

| NIC P/N                 | Capacitance Value (F) |           | Rated Voltage (VDC) | Max. Current @ 30 minutes (mA) | Max. ESR @ 1KHz (Ω) |
|-------------------------|-----------------------|-----------|---------------------|--------------------------------|---------------------|
|                         | Charge                | Discharge |                     |                                |                     |
| NEXM473Z3.5V10.5X5TRF   | 0.047                 | 0.060     | 3.5                 | 0.042                          | 200                 |
| NEXM104Z3.5V10.5X5TRF   | 0.100                 | 0.130     | 3.5                 | 0.090                          | 100                 |
| NEXM224Z3.5V10.5X6.5TRF | 0.220                 | 0.300     | 3.5                 | 0.200                          | 100                 |
| NEXM103Z5.5V10.5X5TRF   | 0.010                 | 0.014     | 5.5                 | 0.015                          | 300                 |
| NEXM223Z5.5V10.5X5TRF   | 0.022                 | 0.028     | 5.5                 | 0.033                          | 200                 |
| NEXM473Z5.5V10.5X5TRF   | 0.047                 | 0.060     | 5.5                 | 0.071                          | 200                 |
| NEXM104Z5.5V10.5X6.5TRF | 0.100                 | 0.130     | 5.5                 | 0.150                          | 100                 |
| NEXM224Z5.5V10.5X6.5TRF | -                     | 0.220     | 5.5                 | 0.330                          | 100                 |
| NEXM473Z6.5V10.5X6.5TRF | 0.047                 | 0.062     | 6.5                 | 0.085                          | 200                 |

Double Layer  
Capacitor  
Guide

### CASE DIMENSIONS (mm)

| NIC P/N                 | DIMENSIONS (mm) |      |     |     |
|-------------------------|-----------------|------|-----|-----|
|                         | L               | H    | S   | T   |
| NEXM473Z3.5V10.5X5TRF   | 10.5            | 11.5 | 5.0 | 5.0 |
| NEXM104Z3.5V10.5X5TRF   |                 |      |     | 5.0 |
| NEXM224Z3.5V10.5X6.5TRF |                 |      |     | 6.5 |
| NEXM103Z5.5V10.5X5TRF   |                 |      |     | 5.0 |
| NEXM223Z5.5V10.5X5TRF   |                 |      |     | 5.0 |
| NEXM473Z5.5V10.5X5TRF   |                 |      |     | 5.0 |
| NEXM104Z5.5V10.5X6.5TRF |                 |      |     | 6.5 |
| NEXM224Z5.5V10.5X6.5TRF |                 |      |     | 6.5 |
| NEXM473Z6.5V10.5X6.5TRF |                 |      |     | 6.5 |



### PRECAUTIONS

Please review the notes on correct use, safety and precautions 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)

