

## FEATURES

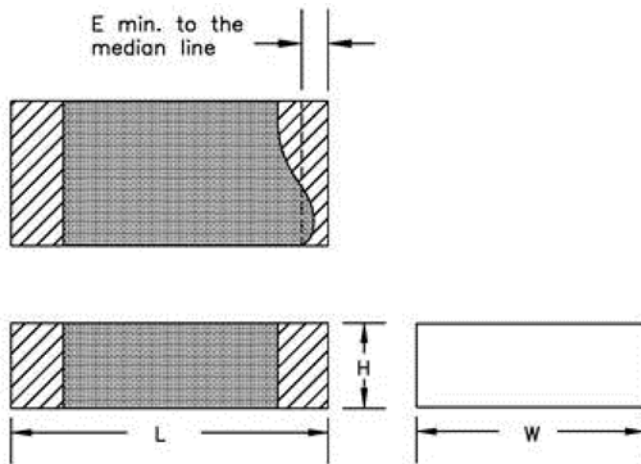
- Unencapsulated stacked metallized high temperature polyethylene terephthalate (PET-HT) film construction, non-inductive.
- High CV, small sizes in EIA 2220, 2824, 4030, 5040, & 6054.
- Wide temperature range (-55°C ~ +125°C).
- IR or vapor reflow compatible soldering.
- Tape/reel package available in all sizes.
- High heat and moisture resistance.
- Stable temperature, frequency and bias characteristics.
- Excellent thermal shock resistance.
- No piezoelectric effect.

## PART NUMBERING

| Part Number Example: 931AF-100/105JTR2824F   |   |                  |   |                        |                |                |           |                |
|--|---|------------------|---|------------------------|----------------|----------------|-----------|----------------|
| 931AF  | - | 100              | / | 105                    | J              | TR             | 2824      | F              |
| Type   |   | Rated DC Voltage |   | Capacitance Code (pF)* | Tolerance Code | Package Code** | Case Size | RoHS Compliant |
| * Capacitance Code: First two digits represent significant figures, third digit represents multiplier (number of zeros). |   |                  |   |                        |                |                |           |                |
| ** Package Code: TR = Tape & Reel.   |   |                  |   |                        |                |                |           |                |

## SPECIFICATIONS

| Performance Characteristics                                   |  |
|---|--|
| Operating Temperature Range                                   | -55°C ~ +125°C with voltage derating of 1.25%/°C between 105°C & 125°C.  |
| Voltage Range   | 63VDC to 630VDC.   |
| Withstanding Voltage (between leads) (20°C)                   | 1.4 times rated voltage for 2 seconds.   |
| Capacitance Range (20°C, 1KHz)                                | 0.01µF ~ 4.7µF.  |
| Capacitance Tolerance   | ±5% & ±10%.  |
| Maximum Dissipation Factor % (20°C, 1KHz)                     | <1.0.  |
| Minimum Insulation Resistance (20°C) (after 1 minute minimum) | >1000MΩ measured @ 10VDC for WVDC < 100VDC & measured @ 100VDC for WVDC ≥ 100VDC (C ≤ 0.33µF).<br>400 seconds measured @ 10VDC for WVDC < 100VDC & measured @ 100VDC for WVDC ≥ 100VDC (C > 0.33µF). |



## SIZE (mm)

| Case Code | Dimensions  |     |             |
|-----------|-------------|-----|-------------|
|           | L           | E   | W           |
| 2220      | 5.7 ± 0.50  | 0.2 | 5.0 ± 0.50  |
| 2824      | 7.1 ± 0.50  | 0.2 | 6.1 ± 0.50  |
| 4030      | 10.2 ± 0.60 | 0.2 | 7.6 ± 0.80  |
| 5040      | 12.7 ± 0.60 | 0.2 | 10.2 ± 0.80 |
| 6054      | 15.2 ± 0.60 | 0.2 | 13.7 ± 0.80 |

#### STANDARD PRODUCTS TABLE BY EIA SIZE

| Cap.<br>( $\mu$ F) | Cap.<br>Code | 63VDC / 40VAC     | 100VDC / 63VAC    | 250VDC / 160VAC   | 400VDC / 200VAC   | 630VDC / 250VAC   |
|--------------------|--------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                    |              | EIA Size / T Max. | EIA Size / T Max. | EIA Size / T Max. | EIA Size / T Max. | EIA Size / T Max. |
| 0.010              | 103          |                   |                   |                   | 2220 / 3.0        | 2220 / 2.8        |
| 0.012              | 123          |                   |                   |                   | 2220 / 2.4        | 2220 / 3.3        |
| 0.015              | 153          |                   |                   |                   | 2220 / 4.0        | 2220 / 4.0        |
| 0.018              | 183          |                   |                   |                   | 2824 / 2.8        | 2824 / 2.8        |
| 0.022              | 223          |                   |                   |                   | 2824 / 3.5        | 2824 / 3.5        |
| 0.027              | 273          |                   |                   |                   | 2824 / 2.8        | 2824 / 4.1        |
| 0.033              | 333          |                   |                   |                   | 2824 / 3.3        | 2824 / 5.0        |
| 0.047              | 473          |                   |                   | 2220 / 3.0        | 2824 / 4.5        | 4030 / 3.6        |
| 0.056              | 563          |                   |                   | 2220 / 3.6        | 4030 / 3.1        | 4030 / 4.3        |
| 0.068              | 683          |                   |                   | 2220 / 4.0        | 4030 / 3.6        | 4030 / 5.2        |
| 0.082              | 823          |                   |                   | 2220 / 4.0        | 4030 / 4.2        | 5040 / 4.3        |
| 0.10               | 104          |                   |                   | 2220 / 4.0        | 4030 / 4.7        | 5040 / 5.0        |
| 0.12               | 124          |                   |                   | 2824 / 4.3        | 5040 / 3.9        | 5040 / 5.6        |
| 0.15               | 154          |                   |                   | 2824 / 4.3        | 5040 / 4.6        | 5040 / 6.9        |
| 0.18               | 184          |                   | 2220 / 2.3        | 2824 / 5.1        | 5040 / 5.6        | 6054 / 5.0        |
| 0.22               | 224          |                   | 2220 / 3.3        | 2824 / 4.9        | 5040 / 6.8        | 6054 / 5.8        |
| 0.27               | 273          | 2220 / 2.8        | 2220 / 3.4        | 4030 / 4.8        | 5040 / 6.8        | 6054 / 7.2        |
| 0.33               | 334          | 2220 / 3.3        | 2220 / 4.0        | 4030 / 5.6        | 6054 / 5.6        |                   |
| 0.39               | 394          | 2220 / 3.4        | 2220 / 3.9        | 4030 / 5.4        |                   |                   |
| 0.47               | 474          | 2220 / 3.5        | 2220 / 4.3        | 4030 / 6.15       | 6054 / 6.2        |                   |
| 0.56               | 564          | 2220 / 3.5        | 2824 / 4.2        | 5040 / 5.6        |                   |                   |
| 0.68               | 684          | 2220 / 4.0        | 2824 / 5.0        | 5040 / 6.5        |                   |                   |
| 0.82               | 824          | 2824 / 3.7        | 2824 / 4.7        | 6054 / 5.1        |                   |                   |
| 1.0                | 105          | 2824 / 3.7        | 2824 / 5.7        | 6054 / 6.0        |                   |                   |
| 1.5                | 155          | 2824 / 5.8        | 4030 / 6.1        | 6054 / 7.0        |                   |                   |
| 2.2                | 225          | 4030 / 5.8        | 5040 / 5.5        |                   |                   |                   |
| 3.3                | 335          | 5040 / 5.5        | 6054 / 5.2        |                   |                   |                   |
| 4.7                | 475          | 6054 / 4.9        | 6054 / 7.1        |                   |                   |                   |