

# MODEL 44

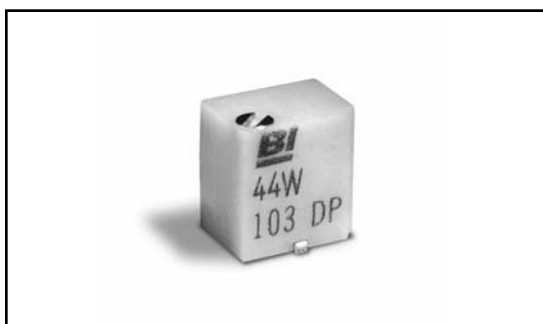
## 4mm Square Multiturn

## Surface Mount

## Cermet Trimming

## Potentiometer

1



### ELECTRICAL

|                                          |                                                |
|------------------------------------------|------------------------------------------------|
| Standard Resistance Range, Ohms          | 10 to 2Meg                                     |
| Standard Resistance Tolerance            | $\pm 10\%$ (<100 Ohms = $\pm 20\%$ )           |
| Input Voltage, Maximum                   | 300 Vdc or rms not to exceed power rating      |
| Slider Current, Maximum                  | 100mA or within rated power, whichever is less |
| Power Rating, Watts                      | 0.25 at 85°C derating to 0 at 150°C            |
| End Resistance, Maximum                  | 1% or 2 Ohms, whichever is greater             |
| Actual Electrical Travel, Turns, Nominal | 9                                              |
| Dielectric Strength                      | 600Vrms                                        |
| Insulation Resistance, Minimum           | 1,000 Megohms                                  |
| Resolution                               | Essentially infinite                           |
| Contact Resistance Variation, Maximum    | 1% or 3 Ohms, whichever is greater             |

### ENVIRONMENTAL

|                                  |                                                                                      |
|----------------------------------|--------------------------------------------------------------------------------------|
| Seal                             | 85°C Fluorinert® (No Leaks)                                                          |
| Temperature Coefficient, Maximum | $\pm 100\text{ppm}/^\circ\text{C}$ (<100 Ohms = $\pm 250\text{ppm}/^\circ\text{C}$ ) |
| Operating Temperature Range      | -65°C to +150°C                                                                      |
| Thermal Shock                    | 5 cycles, -65°C to +150°C (2% $\Delta\text{RT}$ , 1% $\Delta\text{VR}$ )             |
| Moisture Resistance              | Ten 24 hour cycles (2% $\Delta\text{RT}$ , IR 10 Megohms Min.)                       |
| Shock, 6ms Sawtooth              | 100G's (1% $\Delta\text{RT}$ , 1% $\Delta\text{VR}$ )                                |
| Vibration                        | 20G's, 10 to 2,000 Hz (1% $\Delta\text{RT}$ , 1% $\Delta\text{VR}$ )                 |
| Rotational Life                  | 200 cycles (3% $\Delta\text{RT}$ , 1% CRV)                                           |
| Load Life at 0.25 Watts          | 1,000 hours at 85°C (2% $\Delta\text{RT}$ , 1% CRV)                                  |
| Resistance to Solder Heat        | 260°C for 10 sec. (1% $\Delta\text{RT}$ )                                            |
| Temperature Exposure, Maximum    | 215°C for 3 min. (1% $\Delta\text{RT}$ )                                             |
| Solderability                    | Per MIL-STD-202, Method 208                                                          |

### MECHANICAL

|                          |                          |
|--------------------------|--------------------------|
| Mechanical Stops         | Clutch action, both ends |
| Torque, Starting Maximum | 3 oz.-in. (0.021 N-m)    |
| Weight, Nominal          | .01 oz. (0.3 grams)      |

Fluorinert® is a registered trademark of 3M Company.  
Specifications subject to change without notice.



## TOP ADJUSTMENT (Inch/mm)

Model 44W



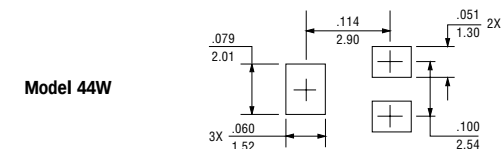
## SIDE ADJUSTMENT (Inch/mm)

Model 44J

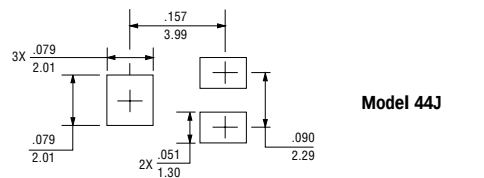


## SOLDER PAD LAYOUT (Inch/mm)

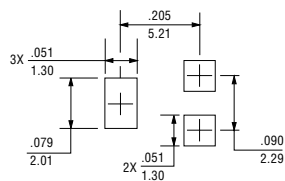
Model 44W



Model 44J



Model 44G



Model 44G



## STANDARD RESISTANCE VALUES, OHMS

|    |     |    |     |      |      |      |
|----|-----|----|-----|------|------|------|
| 10 | 100 | 1K | 10K | 50K  | 250K | 2Meg |
| 20 | 200 | 2K | 20K | 100K | 500K |      |
| 50 | 500 | 5K | 25K | 200K | 1Meg |      |

## FEATURES AND BENEFITS

- Space saving SMD design for the most compact board designs
- Sealed to withstand aggressive water wash
- Long life - set and forget construction
- BI quality and reliability
- Available in top and side adjustment versions, J-Hook or gull wing termination

## PACKAGING

### Standard: Embossed Tape & Reel

All units oriented with #1 pin to the right of the direction of feed.

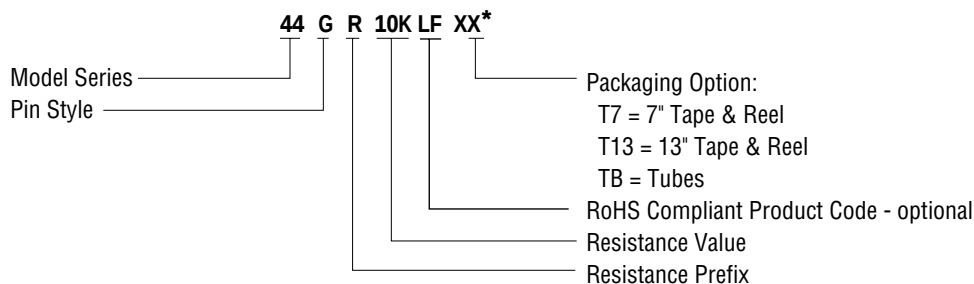
|      | Pin Style | 13" Reel         |             | 7" Reel     |            |
|------|-----------|------------------|-------------|-------------|------------|
|      |           | G & J            | W           | G & J       | W          |
| Tape | Width     | = 12 mm          | 16 mm       | 12 mm       | 16 mm      |
|      | Sprocket  | = 4 mm Pitch     | 4 mm Pitch  | 4 mm Pitch  | 4 mm Pitch |
|      | Capacity  | = 1,000 Units    | 1,000 Units | 500 Units   | 250 Units  |
| Reel | Diameter  | = 13" (330.2 mm) |             | 7" (178 mm) |            |

### Option: Anti-Static Tubes

All units oriented with #1 pin to same side.

Magazine Capacity = 100 Units

## ORDERING INFORMATION



\* Packaging option must be specified.

## CIRCUIT DIAGRAM



## NOTES

Metric equivalents, based on 1 inch = 25.4mm are rounded to the same number of significant figures as in the original English units and are provided for general information only.

Tolerances unless otherwise specified:  
Linear =  $\pm .012$  inches (.30mm)  
Angular =  $\pm 2$  degrees

