## PIHER









#### **MECHANICAL SPECIFICATIONS**

Mechanical rotation angle: 280° ± 10°
 Electrical rotation angle: 245° ± 25°
 Torque: 0.2 to 3 Ncm.

(0.28 to 4.2 in-oz)

- Stop torque: > 7.5 Ncm. ( 10.5 in-oz)

– Mechanical life\*: 10K cycles

#### $^{\ast}$ depending on application

# N-6RE Control Potentiometer

#### **FEATURES**

- 10K cycles mechanical life
- Endless rotation upon request
- RoHS compliant materials ready
- Carbon resistive element
- Plastic substrate
- Over-moulding manufacturing technique
- SMD mounting
- RoHS reflow soldering capable
- Wiper positioned at 50%
- Both sides cross slot easy adjustment
- Accidental rotor movement protected
- Traceability insured through date code marking

#### **ELECTRICAL SPECIFICATIONS**

- Range of values \*

 $1K\Omega \le Rn \le 500K\Omega$  (1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)

- Tolerance:  $1K\Omega \le Rn \le 1M\Omega$  ± 30%

- Max. Voltage: 100 VDC

- Nominal Power 50°C (122°F) (see power rating curve): 0.1W

Taper: linearLinearity\*: 6.5%

- End resistance:  $\leq$  2% Rn (10 $\Omega$  min.)

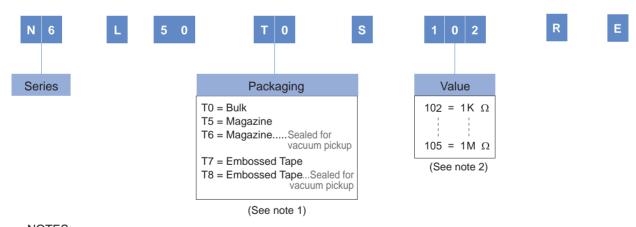
– Equivalent noise resistance: ≤ 5%

- Operating temperature\*\*: -25°C to +70°C

\* Others upon request

\*\* Up to 85°C depending on application

#### HOW TO ORDER



NOTES:

(1) "T7", "T8" Embossed Tape 750 Units per Reel. Diameter: 330 mm, aprox. thickness: 30 mm.

2) Value: Example:

Code: 10 2 = 1 K

Number of zeros

First two digits of the value.

NOTE: The information contained here should be used for reference purposes only. This project has been financially supported by the Spanish Technological Development Institute (CDTI).



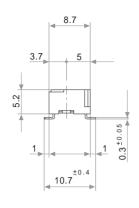


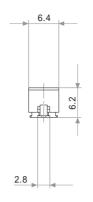


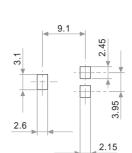


#### **DIMENSIONS**

#### N-6 L 50 T0 S







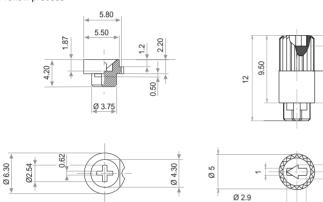
SOLDER PADS

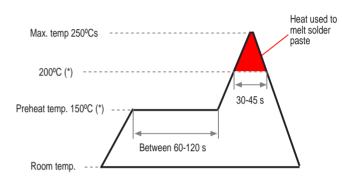
KNOB Ref.: 5680

SHAFT Ref.: 6133

#### **ROHS RECOMMENDED REFLOW PROFILE**

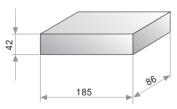
Please order both Knob and Shaft separately. They should be inserted after the reflow process



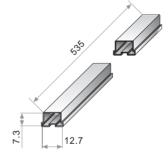


(\*) Melting point temp. depends on solder properties

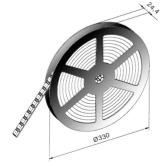
#### **PACKAGING**



**T0 BULK** 500 Units per box.



**T5 / T6 MAGAZINE**Units per magazine: 80



#### T7 / T8 EMBOSSED TAPE Units per reel: 750

### TESTS TYPICAL VARIATIONS POWER RATING CURVE

ELECTRICAL LIFE	1.000 h. @ 50°C: 0.1 W	±10 %
MECHANICAL LIFE (CYCLES)	10K @ 30 CPM	± <b>4</b> % (Rn < 1 M Ω)
TEMPERATURE COEFFICIENT	–25°C; +70°C	±300 ppm (1K≤ Rn ≤100 K)
THERMAL CYCLING	16 h. @ 85°C; 2h. @ <i>-</i> 25°C	±5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	±5 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz 55 Hz.	±2 %

W (%)
40 %
50° 70° C

NOTE: Out of range values may not comply with these results.