

FEATURES

- RoHS compliant materials
- Carbon resistive element
- Plastic substrate
- Over-moulding manufacturing technique
- SMD or through hole
- Embossed Tape (for SMD), Tape on reel, Ammopack and Magazine packaging for automatic insertion and bulk for manual assembly
- Wiper positioned at 50%
- Both sides cross slot easy adjustment
- Accidental rotor movement protected
- Traceability insured through date code marking
- Assembly method:
 - Stand up
 - Lay down

MECHANICAL SPECIFICATIONS

- Mechanical rotation angle: $280^\circ \pm 10^\circ$
- Electrical rotation angle: $245^\circ \pm 25^\circ$
- Torque: 0.2 to 3 Ncm. (0.28 to 4.2 in-oz)
- Stop torque: > 7.5 Ncm. (10.5 in-oz)

ELECTRICAL SPECIFICATIONS

- Range of values *
 $100\Omega \leq R_n \leq 1M\Omega$ (1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)
- Tolerance*: $100\Omega \leq R_n \leq 1M\Omega$ $\pm 30\%$
- Max. Voltage: 100 VDC
- Nominal Power 50°C (122°F) (see power rating curve): 0.1W
- Taper: linear
- End resistance: $\leq 2\%$ R_n (10 Ω min.)
- Equivalent noise resistance: $\leq 5\%$ R_n
- Operating temperature** :
 $-25^\circ\text{C} + 70^\circ\text{C}$ ($-13^\circ\text{F} + 158^\circ\text{F}$)

* Others upon request

** Up to 85°C depending on application

HOW TO ORDER

| N 6 | L | 3 0 | T 1 | N | 1 0 2 | - |
|------------|------------------------------|--|---|---|--|--|
| Series | Mounting method | Terminal style | Packaging | Crimping | Value | RoHS reflowable |
| | S = Stand up L = Lay down | 25 = 2.5 mm. 30 = 3.0 mm. 50 = 5.0 mm. (See note 1) | T0 = Bulk T1 = Reel A = 20 T2 = Reel A = 21.5 T3 = Ammopack.. A = 20 T4 = Ammopack.. A = 21.5 T5 = Magazine T6 = Magazine.... Sealed for vacuum pickup T7 = Embossed Tape T8 = Embossed Tape...Sealed for vacuum pickup (See note 2) | S = SMD N = Not crimped C = Crimped (See note 3) | 101 = 100 Ω 105 = 1M Ω (See note 4) | - = No (standard) R = Yes (See note 5) |

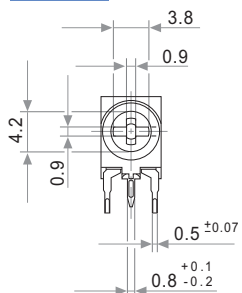
NOTES:

- (1) - Type "N-6 S" is only available with terminal style "25".
- Terminal style "50" is only available with bulk packing "T0", "T1", "T3", "T5", "T6", "T7", "T8"
- (2) - Delivery for "T2" and "T4" only available in: N-6 S 25 and N-6 L 30
- "T5", "T6", "T7" and "T8" only available in SMD.
- "T7", "T8" Embossed Tape 750 Units per Reel. Diameter: 330 mm, aprox. thickness: 30 mm.
- (3) - Crimped terminals are only available in bulk packing "T0".
- Type "S" is only available in N-6 L 50 T0, N-6 L 50 T5, N-6 L 50 T6, N-6 L 50 T7, N-6 L 50 T8
- (4) Value: Example: Code: 10 2 = 1 K

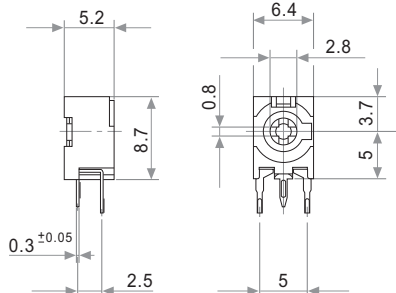
|-----> Number of zeros
 |-----> First two digits of the value.
- (5) - Option R: black housing & rotor colour

MOUNTING METHOD

Type S

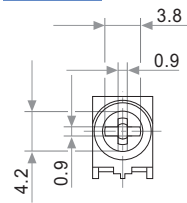


Terminals Side

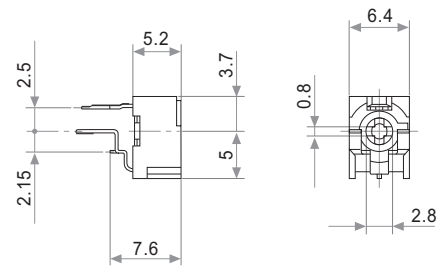


Collector Side

Type L

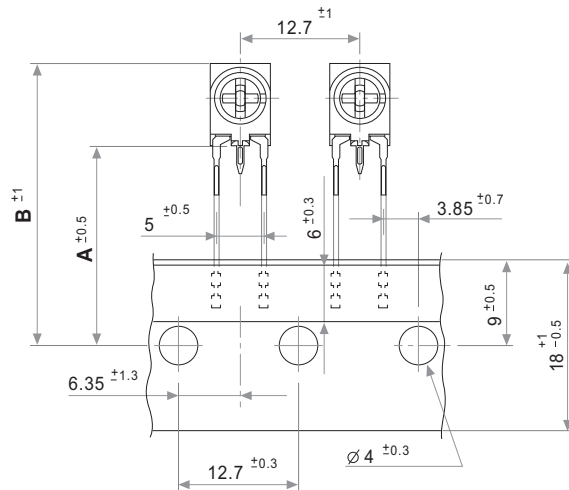
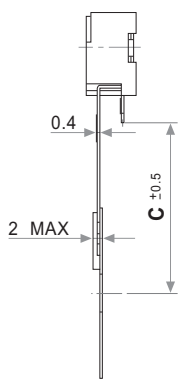


Top

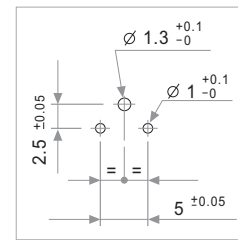


Bottom

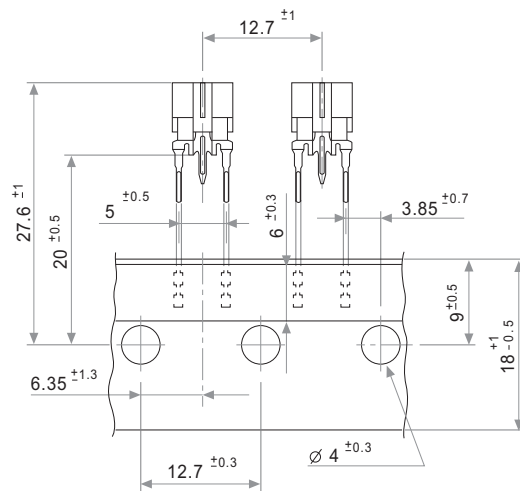
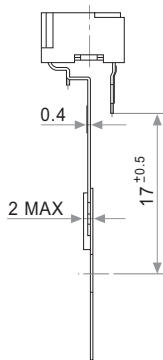
TAPE



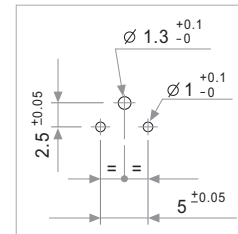
PCB Hole Layout



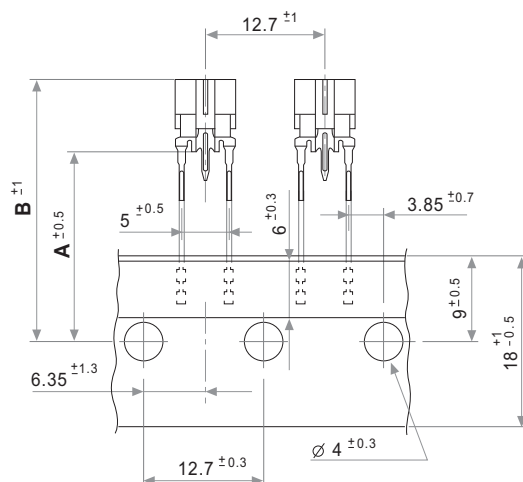
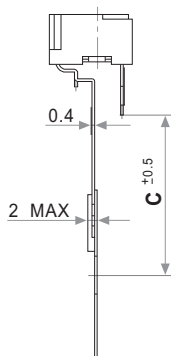
| MODEL | A | B | C |
|------------------|------|------|------|
| N-6 S 25 T1 / T3 | 20 | 28.7 | 17 |
| N-6 S 25 T2 / T4 | 21.5 | 30.2 | 18.5 |



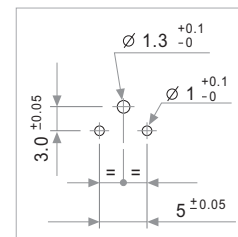
PCB Hole Layout



N-6 L 25 T1 / T3

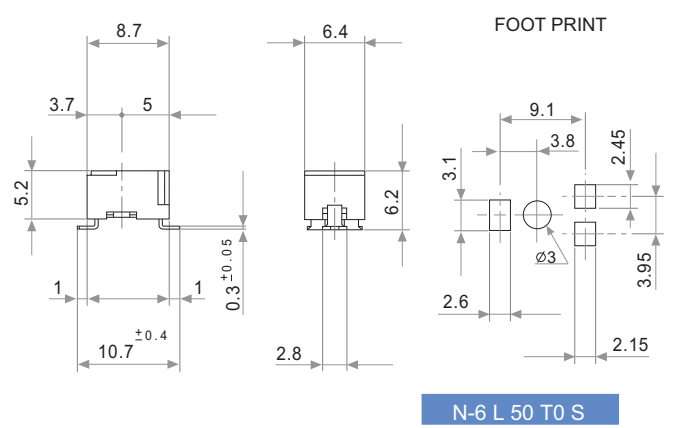
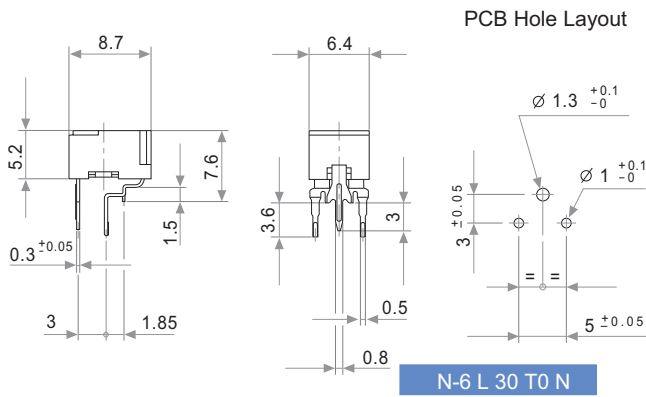
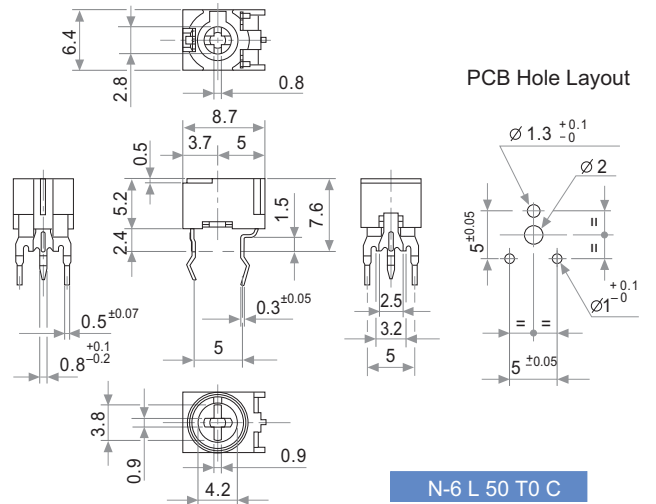
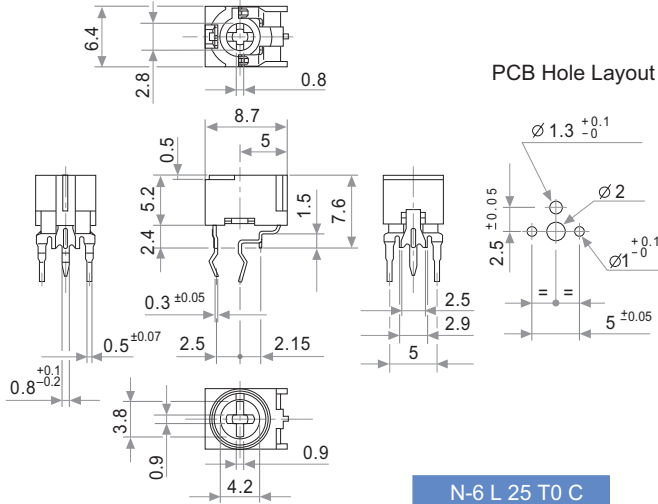


PCB Hole Layout

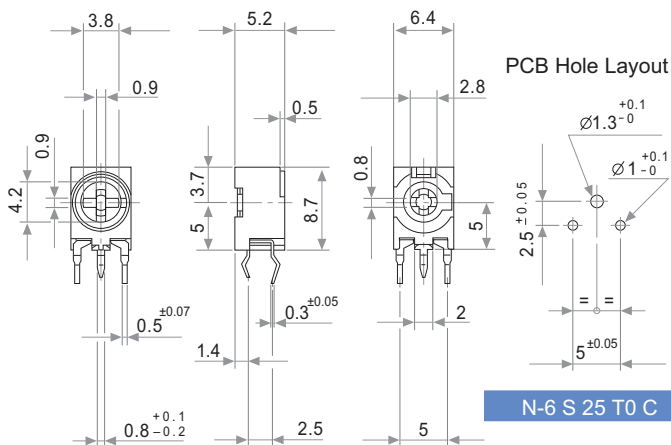


| MODEL | A | B | C |
|------------------|------|------|------|
| N-6 L 30 T1 / T3 | 20 | 27.6 | 17 |
| N-6 L 30 T2 / T4 | 21.5 | 29.1 | 18.5 |

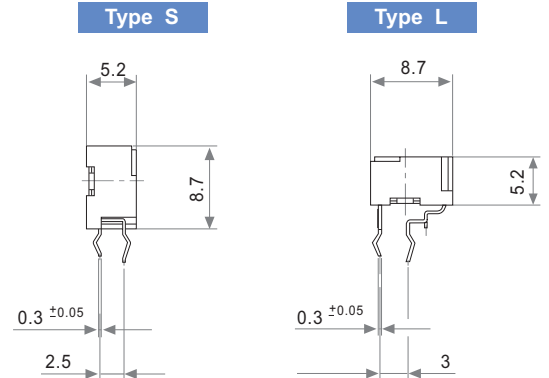
BULK TYPE L



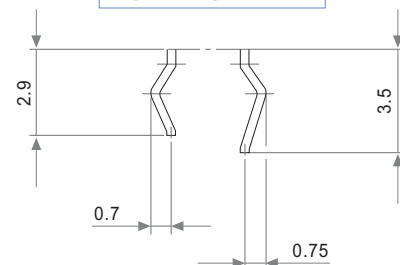
BULK TYPE S



CRIMPING DETAIL "C"



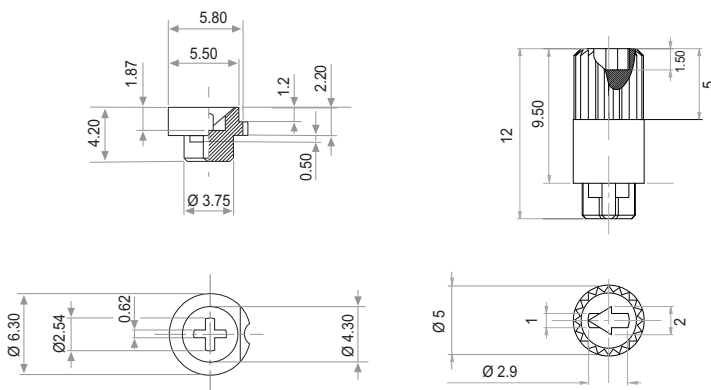
CRIMPING DETAIL



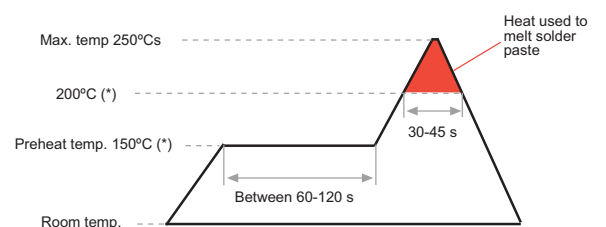
Knob Ref.: 5680

SHAFT Ref.: 6133

Please order both Knob and Shaft separately

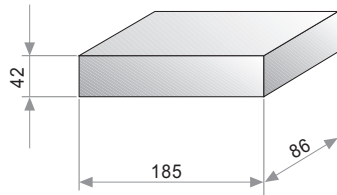


RoHS RECOMMENDED REFLOW PROFILE

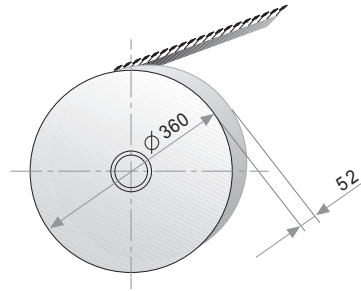


(*) Melting point temp. depends on solder properties

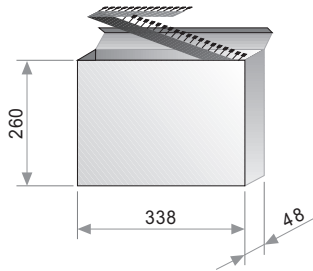
PACKAGING



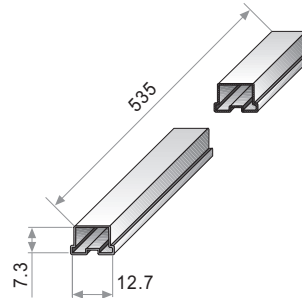
T0 BULK
500 Units per box.



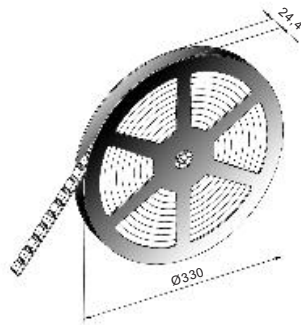
T1 / T2 TAPE ON REEL
Units per Reel according to type:
S: 1.000
L: 750



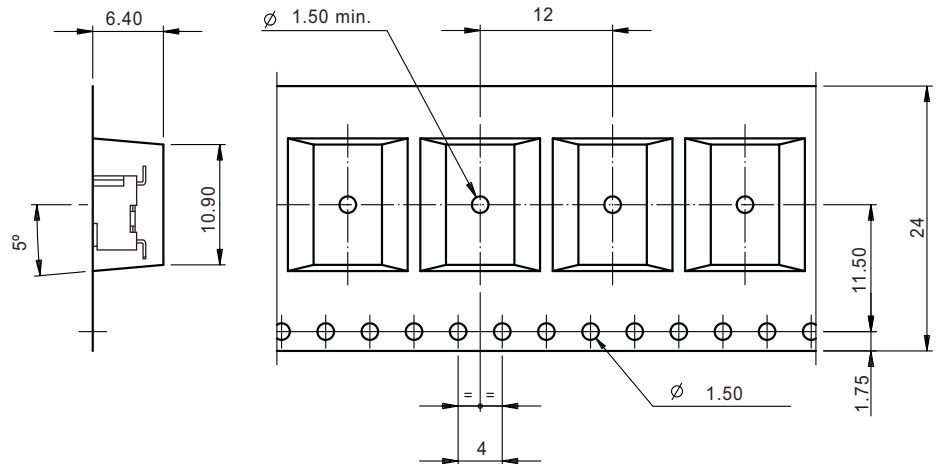
T3 / T4 AMMOPACK
Units per Box according to type.
S: 1.000
L: 750



T5 / T6 MAGAZINE
Units per magazine: 80



T7 / T8 EMBOSSED TAPE
Units per reel: 750



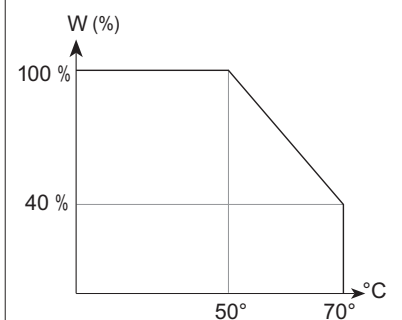
| AVAILABLE COMBINATIONS | TAPE | | | | MAGAZINE | | EMB. | BULK | |
|------------------------|------|----|----|----|----------|----|-------|------|-------|
| | T1 | T2 | T3 | T4 | T5 | T6 | T7/T8 | SMD | CRIMP |
| N-6 S 25 | ● | ● | ● | ● | | | | | ● |
| N-6 L 25 | ● | | ● | | | | | | ● |
| N-6 L 30 | ● | ● | ● | ● | | | | | ● |
| N-6 L 50 | ● | | ● | | ● | ● | ● | ● | ● |

TESTS

TYPICAL VARIATIONS

POWER RATING CURVE

| | | |
|----------------------------------|---------------------------|---------------------------|
| ELECTRICAL LIFE | 1.000 h. @ 50°C: 0.1 W | ±10 % |
| MECHANICAL LIFE (CYCLES) | 100 @ 10 CPM ...15 CPM | ±3 % (Rn < 1 M Ω) |
| TEMPERATURE COEFFICIENT | -25°C; +70°C | ±300 ppm (1K ≤ Rn ≤ 100K) |
| THERMAL CYCLING | 16 h. @ 85°C; 2h. @ -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 % |



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