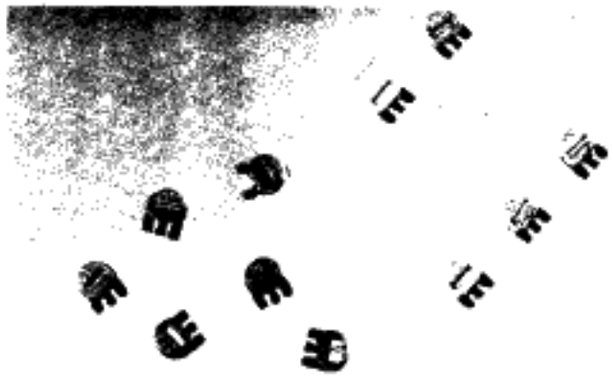
A-21-03

MEC CITEC

POTENTIOMETERS
INDUCTORS, SMDs
SWITCHES, NETWORKS
ENCODERS
POWER COMPONENTS

Economy Trimmers
TYPE 3140 SERIES



A range of tiny single turn trimmers suited to reflow soldering and attractively priced for volume application.
Alternative layouts in two and three terminal versions and low profile models (2.2mm) make this a very versatile product. All product is supplied on 12 mm tape and reeled on 178 mm diameter reels.

MEC CITEC KEY FEATURES

- STABLE CERMET ELEMENT
- 0.15 W POWER RATING
- PACKED IN 12mm STANDARD TAPE
- ATTRACTIVELY PRICED
- SUITED TO AUTOMATIC PLACEMENT
- RANGE OF TERMINAL LAYOUTS
- TEMP RANGE -25°C TO +85°C
- GOOD VACUUM PICK UP ON HEAD

MEGGITT ELECTRONICS

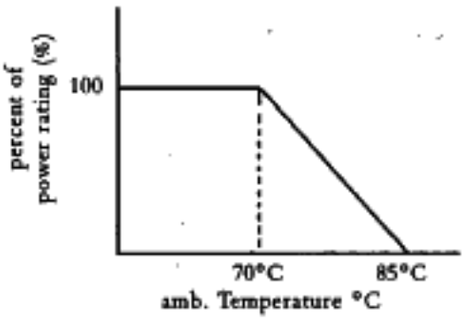
PIHER

SPECIFICATION

ELECTRICAL

Resistance Range:	100R to 1M
Resistance Tolerance:	± 25%
Power Rating:	0.15%W @ 70°C derating to zero at 85°C
Max. Input Voltage:	50 vdc or ac RMS max
Max. Wiper Current:	50mA
Electrical Angle, Nominal:	270° ± 10°
End Resistance, Max:	5%
Contact Resistance Variation:	5% max
Operating Temperature:	-25°C to + 85°C
Temp. Coefficient, of Resistance:	± 250 ppm/°C
Insulation Resistance, Min:	100 M Ω (DC 250V)

DERATING CURVE



When the ambient temperature exceeds 70°C, reduce the rated power and current in accordance with the derating curve given.

MECHANICAL

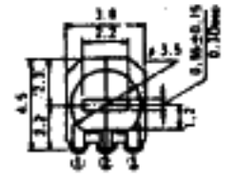
Mechanical Angle:	Continuous
Operating Torque, Max:	2.0-24.5 mNm
Solder Strength Min:	300 gF cm (3 directions)

ENVIRONMENTAL

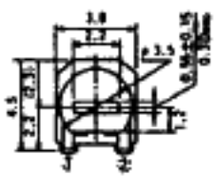
Humidity Exposure:	Res. Change : ± 3%
High Temperature Exposure:	Res. Change : ± 3%
Humidity Load Life:	Res. Change : ± 3%
Load Life:	Res. Change : ± 3%
Temperature Cycle:	Res. Change : ± 3%
Effect of Soldering:	Res. Change : ± 10% (10 cycle)

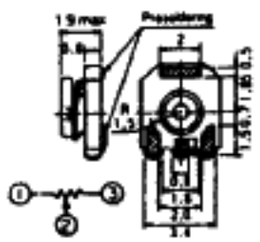
ALTERNATIVE STYLES

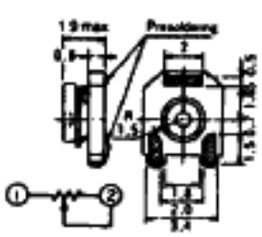
3140



3141



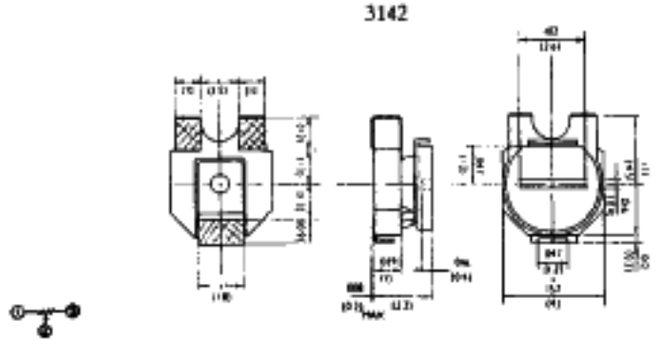




DIMENSIONS

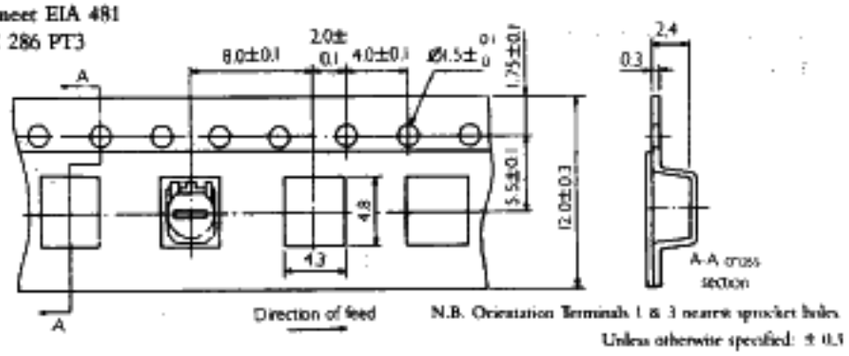
All dimensions are nominal and in 'mm' unless otherwise stated. Do not scale.

3142



PACKAGING (TAPE)

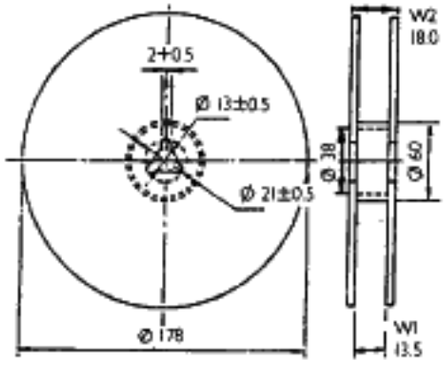
To meet EIA 481
IEC 286 PT3



N.B. Orientation Terminals 1 & 3 nearest sprocket holes.
Unless otherwise specified: ± 0.3

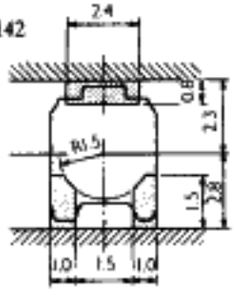
PACKAGING (REEL)

Reel Qty
800 pcs

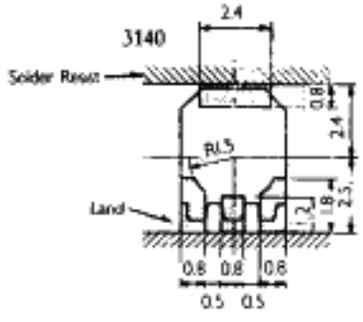


SUBSTRATE LAYOUT

3141/3142



3140



HOW TO ORDER

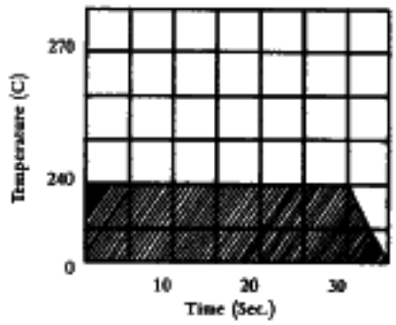
3142	X	502	P
COMMON PART	ORIENTATION	RESISTANCE VALUE	TOLERANCE
3140 - 3 Terminals in line 3141 - 2 Terminals in line 3142 - 3 Terminals offset	X = Terminals 1 and 3 away from sprocket holes W = Terminals 1 and 3 towards sprocket holes	The first digits are significant figures of resistance value and the third one denotes the number of zeroes following.	Example 1 k : 102 5 k : 502 100 k : 104	P = ±25%

APPLICATION NOTES

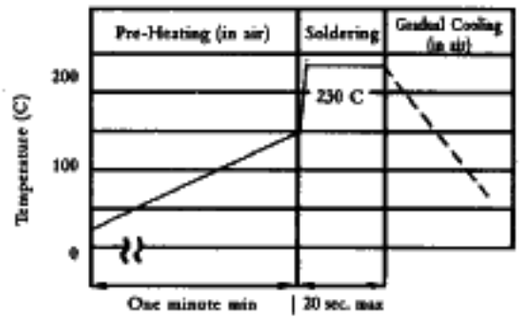
SOLDERING CONDITIONS

If soldering is repeated, please note that the allowance time is the accumulated time.
Solder : Co-crystalized solder
Flux : Rosin Flux

REFLOW SOLDERING-NO PREHEAT



REFLOW SOLDERING RECOMMENDED



SOLDERING WITH IRON

The following conditions must be strictly obeyed when using a soldering iron.
Soldering Iron : 20W maximum
Tip temperature : 280°C maximum
Soldering time : 5 seconds maximum

CLEANING CONDITIONS

After soldering, use cleaning solvents such as chlorosen or dyefreon.

CAUTION ON SOLDERING

The following conditions must be strictly obeyed when using a soldering iron for rework:
Soldering iron : 20W maximum
Trip temperature : 280°C maximum (To be used only once)
Soldering time : 3 seconds maximum
Be careful not to cause excessive force to be applied to the potentiometer after mounting.
Reduce effects of solder temperature and time as much as possible by giving maximum allowable pre-heating.

STORAGE

To prevent damage to the electrode, be sure to observe the following cautions for storage.
- Store in 40°C maximum ambient temperature, and 70°C maximum ambient RH.
- For maximum possible shelf life do not disturb polythene sleeve until you are ready to use potentiometers.
- Store where there are no harmful gasses containing sulphur or chlorine.

All inquires should be directed to:

Piher International Corp.
903 Feehanville Drive.
Mt. Prospect, IL 60056