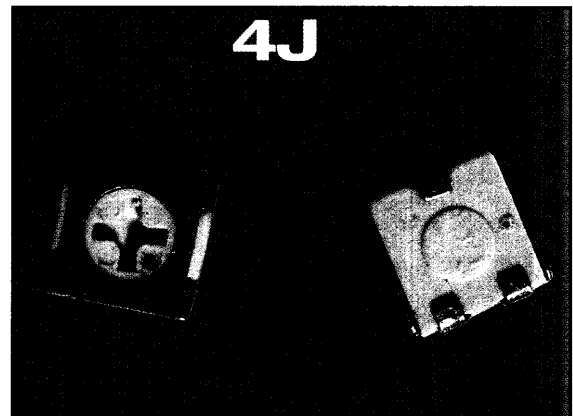
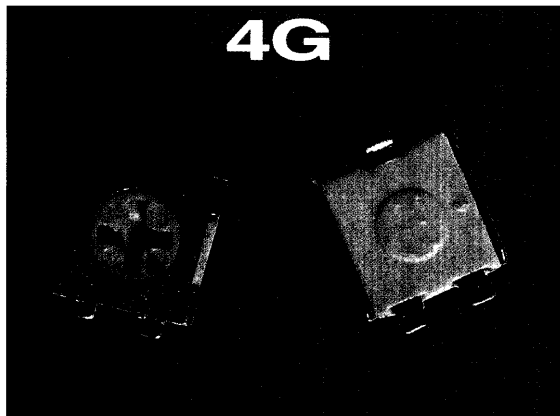
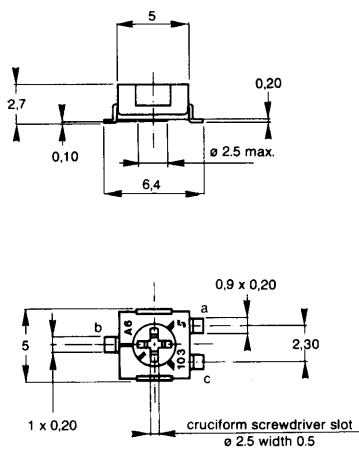


The Models 4G and 4J

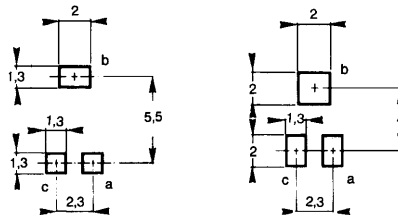


The new models 4G and 4J trimming potentiometers have been designed for high performance and stability with optimum packaging density. Both the J-lead (4J) and gull wing (4G) are fully sealed for wave, vapour phase, reflow soldering and immersion cleaning processes. Designed for both manual or automatic operation, and fitted with mechanical stops, both models are available in bulk or tape and reel packaging.

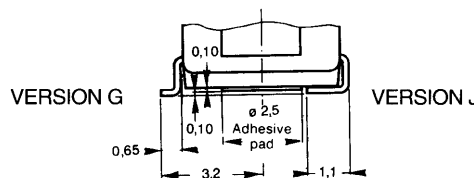
DIMENSIONS 4G



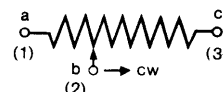
RECOMMENDED SOLDERING AREAS



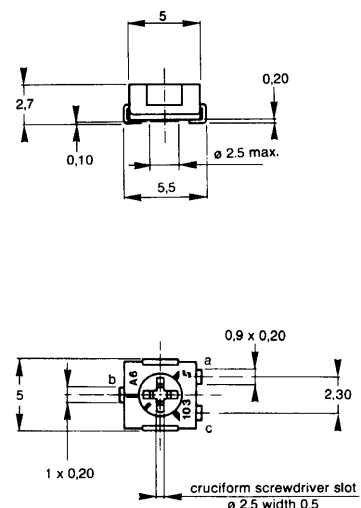
ADHESIVE PAD (detail)



CIRCUIT DIAGRAM



DIMENSIONS 4J



Dimensions in mm

SPECIFICATIONS

MECHANICAL

Mechanical Travel	270° ±10°
Operating Torque (max. Ncm)	1,5
End Stop Torque (Ncm)	3,5
Unit Weight (max. g)	0,15
Resistive Element	cermet

ENVIRONMENTAL

Temperature Range	-55°C to +155°C
Climatic Category	55/125/56
Sealing	sealed container solder immersion

ELECTRICAL

Electrical Travel	220° ±15°
Resistance Range	10Ω - 1MΩ
Standard Series	1 - 2 - 5
Tolerance Standard	±20%
Power Rating linear	0,2 W at 85°C or 0,25 W at 70°C
logarithmic	not applicable
Typical Temp. Coefficient (for Rn ≥ 100 Ω)	50 ppm/°C
Limiting Element Voltage (linear law)	200 V
Contact Resistance Variation	2% or 3 Ω
End Resistance Variation (typical)	1 Ω
Dielectric Strength (RMS)	1000 V
Insulation Resistance	10 ⁶ MΩ

Spectrol

PERFORMANCES

Table 1

TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS	
		$\frac{\Delta R_T}{R_T} \%$	$\frac{\Delta R_1 - 2}{R_1 - 2}$
LOAD LIFE	1000 hours at rated power 90/30' – Ambient temperature +85°C	2% Contact resistance variation: $\Delta < 1\% R_n$	3%
MOISTURE RESISTANCE	MIL STD 202 Method 106 10 cycles of 24 hours constituted with damp heat – cold – vibrations	2% Dielectric strength: 1000 VRMS Insulation resistance: $> 10^4 M\Omega$	3%
LONG TERM DAMP HEAT	Temperature 40°C – RH 90-95% 10% rated power 56 days	2% Dielectric strength: 1000 VRMS Insulation resistance: $> 10^4 M\Omega$	3%
THERMAL SHOCKS	55°C to +125°C cycles	1%	$\Delta \frac{V_1 - 2}{V_1 - 3} 2\%$
ROTATIONAL LIFE (electrical and mechanical)	100 cycles – rated power	3%	
SHOCKS	MIL STD 202 Method 213/I 100 g – 6 ms 3 successive shocks in 3 directions	1%	$\Delta \frac{V_1 - 2}{V_1 - 3} 1\%$
VIBRATIONS	MIL STD 202 Method 204/D 20 g – 12 hours	1%	$\Delta \frac{V_1 - 2}{V_1 - 3} 1\%$

STANDARD RESISTANCE ELEMENT DATA

Table 2

Standard resistance values	LINEAR LAW			T.C. -55°C +125°C
	Max. power at 85°C	Max. working voltage	Max. cur. through element	
Ω	W	V	mA	ppm/°C
10 20 50	0.20	1.41 2 3.16	141 100 63	0 +200
100 200 500		4.47 6.32 10	45 32 20	
1 k 2 k 5 k 10 k 20 k 50 k 100 k 200 k 500 k 1 M		14 20 31.6 44.7 63.2 100 141 200 200 200	14 10 6.3 4.5 3.2 2 1.4 1 0.4 0.2	± 100

SURFACE MOUNTING (according to VCRI)

Soldering cycle: 2 mn at 215°C or 10 seconds at 260°C or with an IRON 40 W: 3 seconds at 350°C.

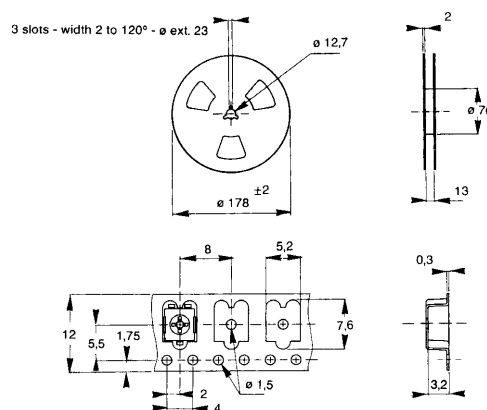
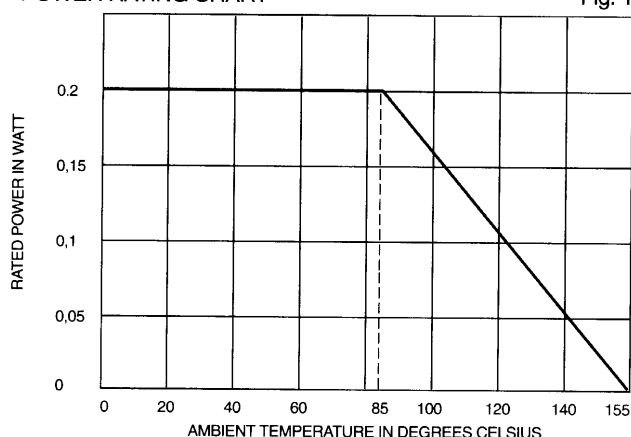
Soldering is possible by waves, reflow and vapour phase.

PACKAGING

- In bulk, (plastic box of 100 or 250 pieces) no code
- On tape and reel by 500 pieces.

POWER RATING CHART

Fig. 1



Cover tape panel strength specifications EIA 481 A and 286 CEI 3.

ORDERING INFORMATION

