

3mm Surface Mount, Single-Turn, Sealed Cermet Trimmers



Features

- 3mm square SMD, single-turn, sealed cermet trimmers
- Available in J-hook and gull-wing terminal configurations
- Top adjustment in single-slot or automatic adjust cross-slot design
- Wide temperature range of -55°C to $+125^{\circ}\text{C}$
- Designed for flow, reflow or infrared reflow soldering
- Sealed to withstand immersion cleaning processes
- Tape and reel packaging
- Meets EIA, EIAJ, IPC, VECL standard SMD trimmer designs

Specifications

Electrical

Standard Resistance Range	..... 50Ω to $2\text{M}\Omega$ (standard 1, 2 & 5 sequence)
Resistance Tolerance	..... $\pm 20\%$ standard
End Resistance	..... 1% or 3Ω , whichever is greater
Resistance Taper	..... Linear
Peak Noise (C.R.V.)	..... 2% or 3Ω , whichever is greater
Power Rating	..... 0.125 watt at $+70^{\circ}\text{C}$; 0 watt at $+125^{\circ}\text{C}$
Maximum Input Voltage	..... 200VDC or power rating, whichever is smaller
Temperature Coefficient	..... $\pm 100\text{ppm}/^{\circ}\text{C}$, 200Ω to $1\text{M}\Omega$ $\pm 250\text{ppm}/^{\circ}\text{C}$, other values
Insulation Resistance	..... $100\text{M}\Omega$ minimum at 500VDC
Dielectric Strength	..... 500VAC, 1 minute
Adjustment Travel	..... $220^{\circ} \pm 10^{\circ}$

Mechanical

Mechanical Travel	..... $250^{\circ} \pm 10^{\circ}$
Shaft Torque	..... 50 gf·cm (0.69 oz·in) max.
Stop Strength	..... 200 gf·cm (2.77 oz·in) min.
Flammability of Plastic Materials	..... Meets UL 94V-0
Nominal Weight	..... 0.068g
Marking	..... Resistance value or code, date code

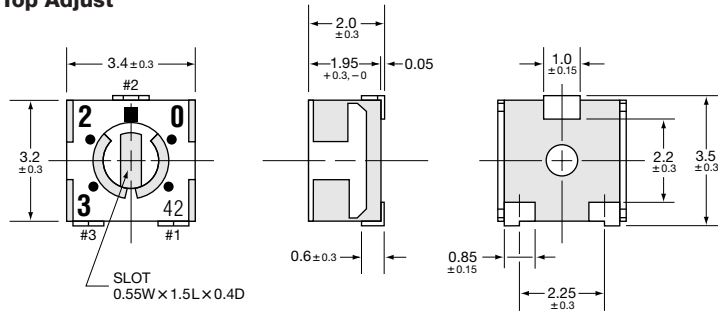
Environmental

Temperature Range	..... -55°C to $+125^{\circ}\text{C}$
Low Temperature Operation	..... -55°C , 0.125 watt, 1 hour $\Delta\text{T}/\text{R} \leq \pm 2\%$, S.S. $\leq \pm 2\%$
High Temperature Exposure	..... $+125^{\circ}\text{C}$, 250 hours $\Delta\text{T}/\text{R} \leq \pm 2\%$, S.S. $\leq \pm 2\%$
Load Life	..... $+70^{\circ}\text{C}$, 0.125 watt, 1,000 hours $\Delta\text{T}/\text{R} \leq \pm 3\%$, S.S. $\leq \pm 2\%$
Thermal Shock	..... -55°C , $+125^{\circ}\text{C}$, 30 minutes each, 5 cycles $\Delta\text{T}/\text{R} \leq \pm 2\%$, S.S. $\leq \pm 1\%$
Shock	..... 100G, 6ms, 6 directions, 3 times each $\Delta\text{T}/\text{R} \leq \pm 1\%$, S.S. $\leq \pm 1\%$
Vibration	..... 10-2,000Hz, 1.5mm amplitude, 20G, 12 hours $\Delta\text{T}/\text{R} \leq \pm 1\%$, S.S. $\leq \pm 1\%$
Humidity	..... $+40^{\circ}\text{C}$, 90-95% RH, 0.125 watt, 500 hours $\Delta\text{T}/\text{R} \leq \pm 3\%$, S.S. $\leq \pm 2\%$
Moisture Resistance	..... -10°C to $+65^{\circ}\text{C}$, 80-98% RH, 0.125 watt, 10 cycles, 240 hours $\Delta\text{T}/\text{R} \leq \pm 3\%$
Soldering Heat Resistance	..... 240°C , 10 seconds $\Delta\text{T}/\text{R} \leq \pm 1\%$
Seal Test	..... $+85^{\circ}\text{C}$, hot water for 1 minute
Rotational Life	..... 100 cycles without discontinuity, no load $\Delta\text{T}/\text{R} \leq \pm 5\%$

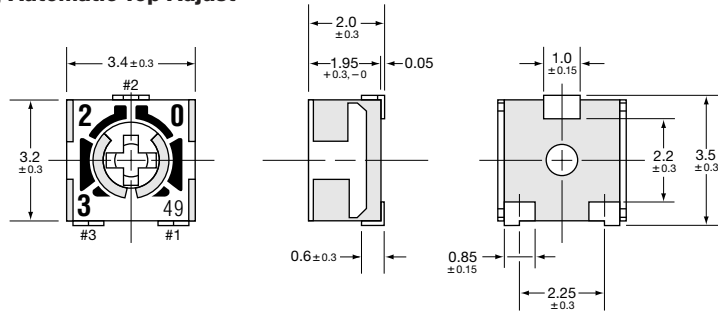
$\Delta\text{T}/\text{R}$ = Total Resistance Change; S.S. = Setting Stability (voltage ratio)

Unit: mm

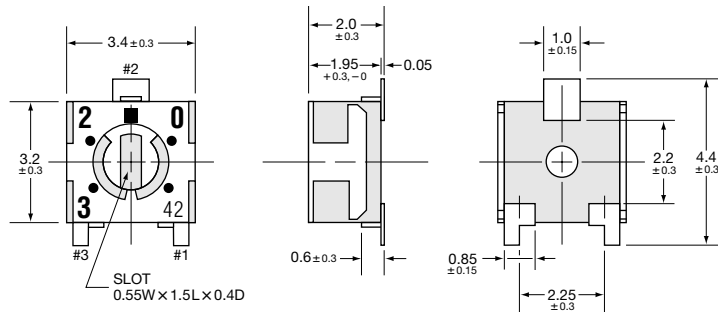
G3A J-Hook, Single-Slot, Top Adjust



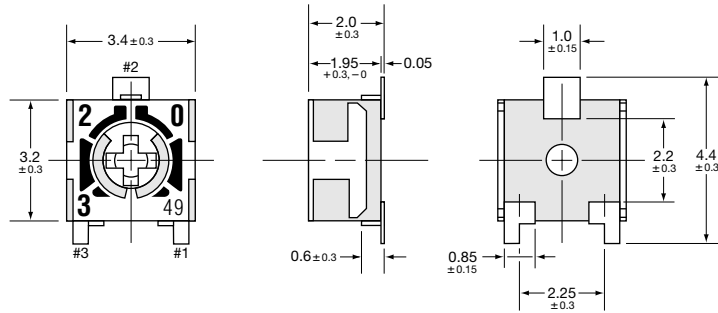
G31A J-Hook, Cross-Slot, Automatic Top Adjust



G3B Gull-Wing, Single-Slot, Top Adjust



G31B Gull-Wing, Cross-Slot, Automatic Top Adjust



Cross-Slot Dimensions

Electrical Schematic

All G31 Models

Unit: mm

