

SMU Series

SMD, single-turn, sealed cermet trimmers



- Available in J-hook and gull-wing terminal configurations
- Meets EIA, EIAJ, IPC, VECI standard SMD trimmer designs
- Pb-free and Cd-free construction
- RoHS compliant
- Gold-plated leads provide high conductivity, low contact resistance, high corrosion resistance and good solderability
- Top cross-slot adjustment (top single-slot models available as special order)
- Tape and reel packaging

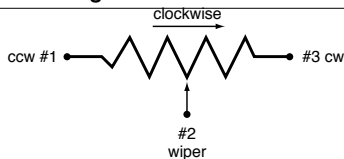


SERIES SPECIFICATIONS

| Series | Wattage | Manufactured Range (Ω) | Rotation | Adj. Location | Taper | Tolerance |
|--------|---------|---------------------------------|--------------------------|---------------|--------|-----------|
| SMUA | 0.125 | 50-2M | $250^\circ \pm 10^\circ$ | Top | Linear | 20% |
| SMUB | 0.25 | 50-2M | $250^\circ \pm 10^\circ$ | Top | Linear | 20% |

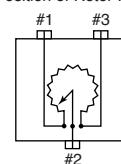
CHARACTERISTICS

| | |
|--|--|
| Standard Resistance Range | 50 Ω to 2M Ω (standard 1, 2 & 5 sequence) |
| Resistance Tolerance | $\pm 20\%$ standard |
| End Resistance | 1% or 3 Ω , whichever is greater |
| Temp. Range | -55 $^\circ$ C to +125 $^\circ$ C |
| Resistance Taper | Linear |
| Peak Noise (C.R.V.) | 2% or 3 Ω , whichever is greater |
| Power Rating | SMUA 0.125w @70 $^\circ$ C; 0w @+125 $^\circ$ C SMUB 0.250w @70 $^\circ$ C; 0w @+125 $^\circ$ C |
| Maximum Input Voltage | 200VDC or power rating, whichever is smaller |
| Temperature Coefficient | ± 100 ppm/ $^\circ$ C, 200 Ω to 1M Ω ± 250 ppm/C, other values |
| Insulation Resistance | 100M Ω minimum at 500VDC |
| Dielectric Strength | 500VAC, 1 minute |
| Adjustment Travel | $250^\circ \pm 10^\circ$ |
| Mechanical Travel | $250^\circ \pm 10^\circ$ |
| Shaft Torque | 0 gf \cdot cm (0.69 oz \cdot in) max. |
| Stop Strength | 200 gf \cdot cm (2.77 oz \cdot in) min. |
| Flammability of Plastic Materials | Meets UL 94V-0 |
| Nominal Weight | 0.068g |
| Marking | Resistance value or code, date code |

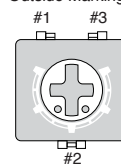


| | | |
|----------------------------------|--|--|
| Low Temperature Operation | -55 $^\circ$ C, 0.125 watt, 1 hour | $\Delta T/R \leq \pm 2\%$, S.S. $\leq \pm 2\%$ |
| High Temp. Exposure | +125 $^\circ$ C, 250 hours | $\Delta T/R \leq \pm 2\%$, S.S. $\leq \pm 2\%$ |
| Load Life | +70 $^\circ$ C, 0.125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

Position of Rotor Inside



Outside Markings



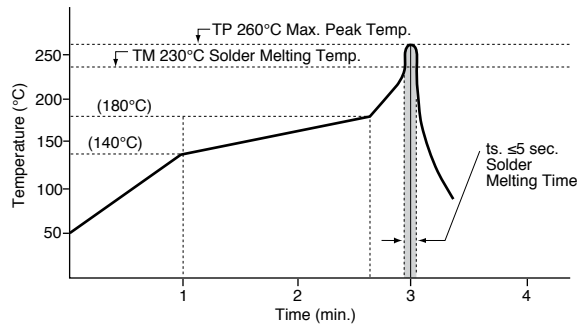
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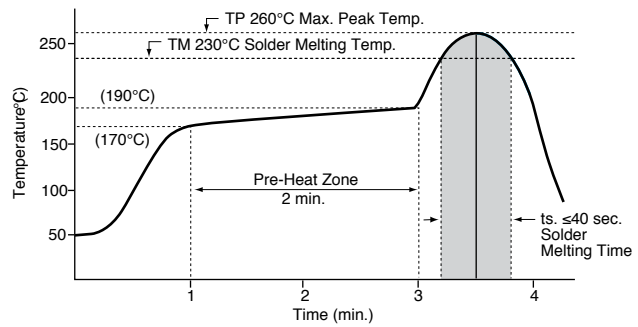
CHARACTERISTICS

(continued)

Flow Soldering Profile

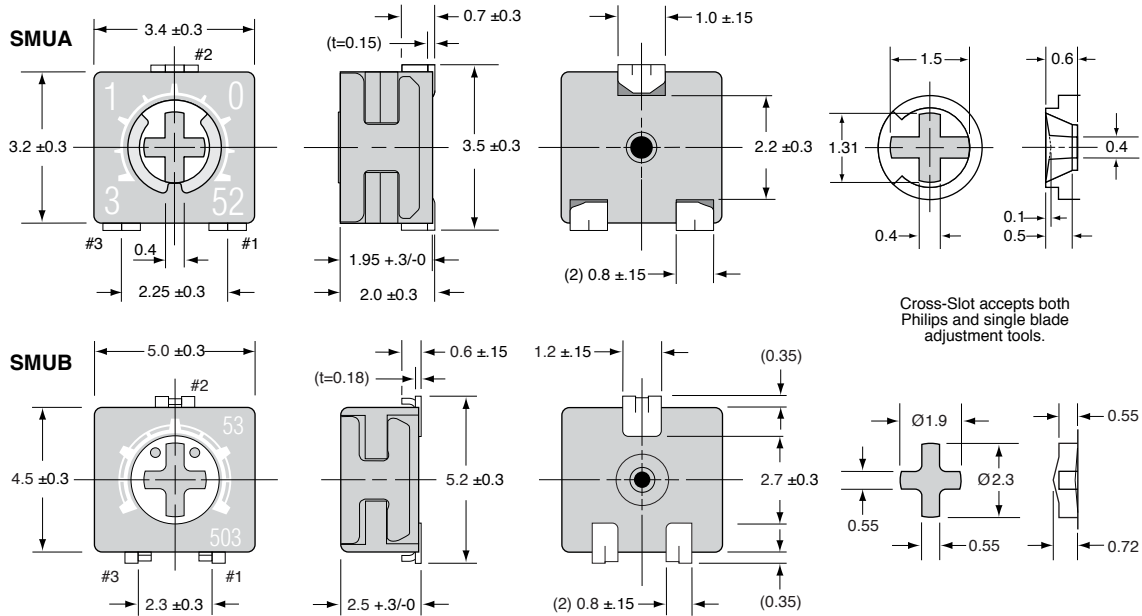


Reflow Soldering Profile

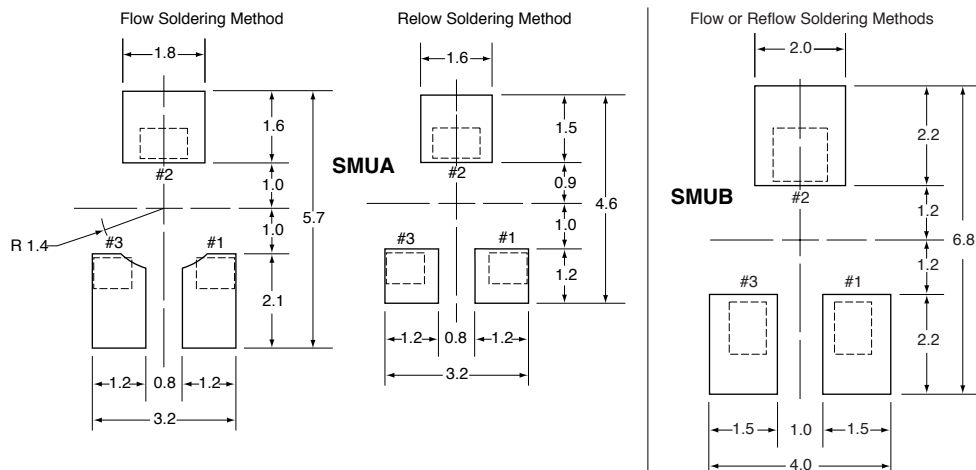


DIMENSIONS

(mm)



Land Pattern

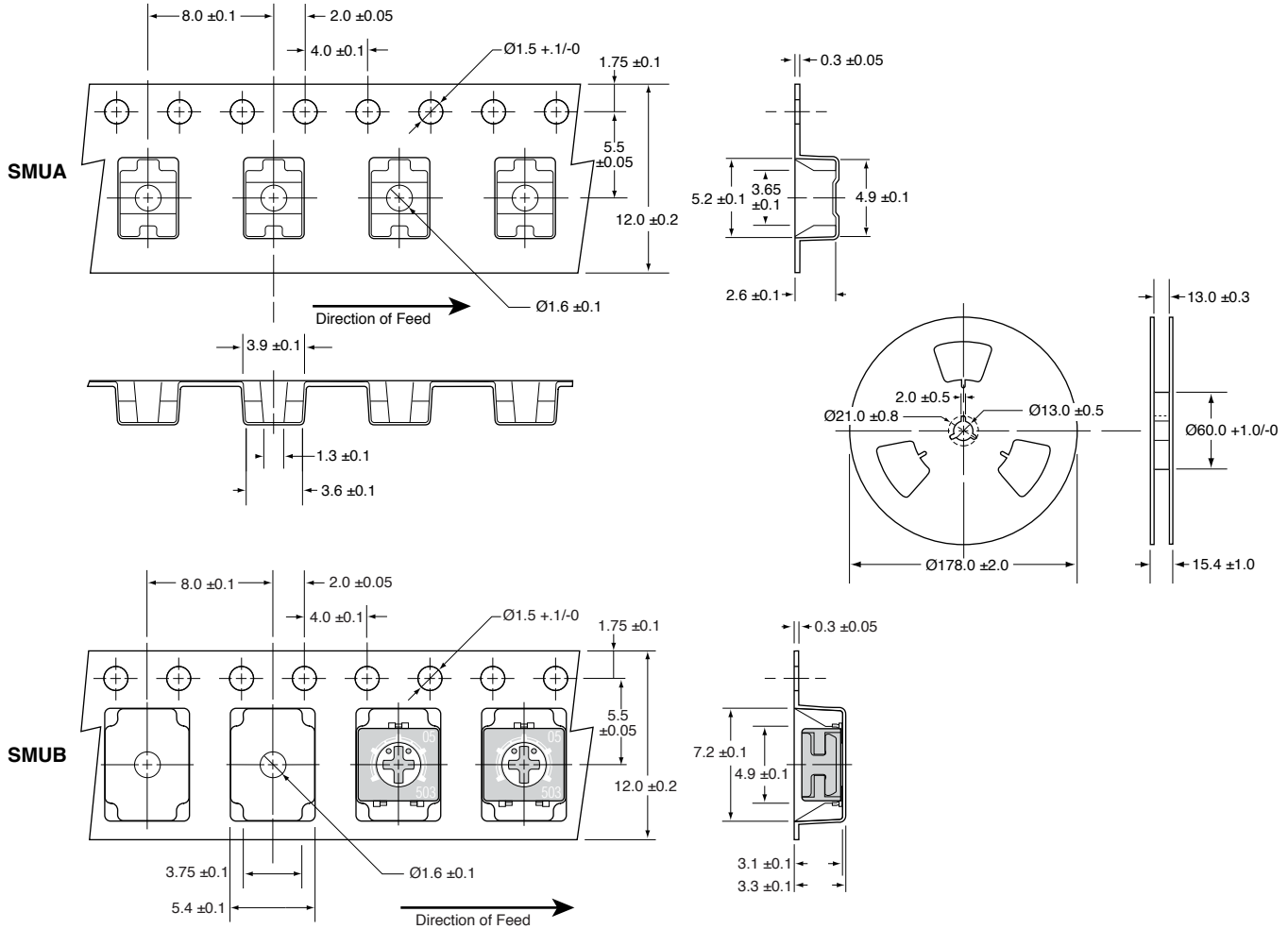


SMU Series

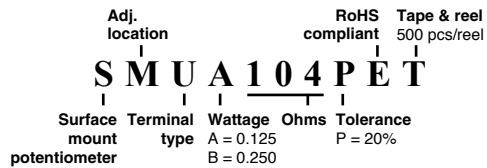
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TAPE AND REEL

(mm)



ORDERING INFORMATION



Standard Part Numbers

| | |
|------------|------------|
| SMUA500PET | SMUB500PET |
| SMUA101PET | SMUB101PET |
| SMUA201PET | SMUB201PET |
| SMUA501PET | SMUB501PET |
| SMUA102PET | SMUB102PET |
| SMUA202PET | SMUB202PET |
| SMUA502PET | SMUB502PET |
| SMUA103PET | SMUB103PET |
| SMUA203PET | SMUB203PET |
| SMUA503PET | SMUB503PET |
| SMUA104PET | SMUB104PET |
| SMUA204PET | SMUB204PET |
| SMUA504PET | SMUB504PET |
| SMUA105PET | SMUB105PET |