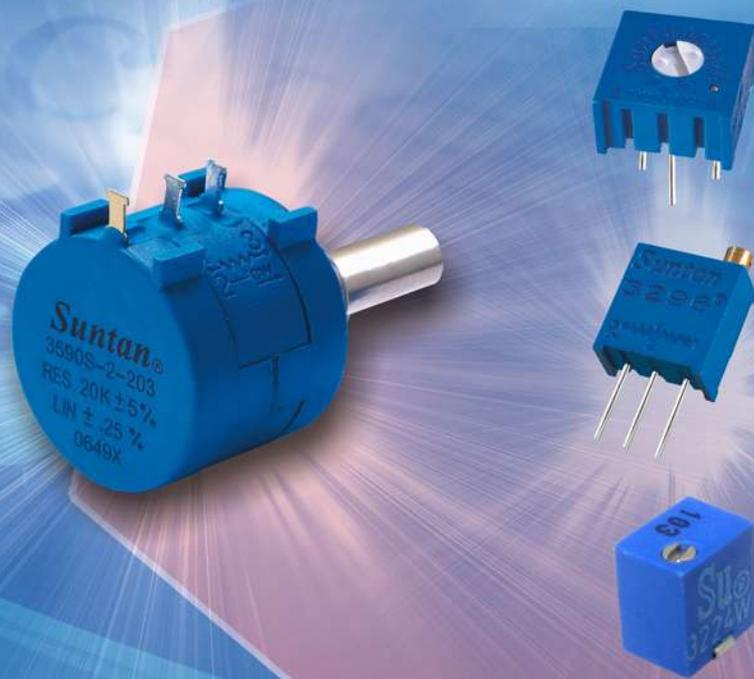


三泰 科技 有 限 公 司
Suntan® Technology Company Limited



玻璃釉微調電位器
Square Trimming Potentionmeter

Trimming Potentiometer

PRODUCT SPECIFICATIONS:						
	TSR-3006	TSR-3362	TSR-3296	TSR-3266	TSR-3386	TSR-3323
Standard Resistance Range	10Ω~5MΩ	10Ω~5MΩ	10Ω~5MΩ	10Ω~5MΩ	10Ω~5MΩ	10Ω~2MΩ
Resistance Tolerance	±10%	±10%	±10%	±10%	±10%	±10%
Absolute Minimum Resistance	≤1%R or 5n	≤1%R or 10n	≤1%R or 10n	≤1%R or 10Ω	≤1%R or 10n	≤1%R or 10n
Contact Resistance Variation	CRV≤4% or 5n	CRV≤3% or 5Ω	CRV≤3% or 5n	CRV≤3% or 5Ω	CRV≤3%	CRV≤3% or 5n
Insulation Resistance	R1≥1GΩ(100Vac)	R1≥1GΩ(500Vac)	R1≥1GΩ(100Vac)	R1≥1GΩ(100Vac)	R1≥1GΩ(100Vac)	R1≥1GΩ(500Vac)
Withstand Voltage	640Vac	700Vac	640Vac	500Vac	600Vac	707Vac
Effective Travel	22±2 turns nom	250°±10°	30±2 turns nom	12±2 turns nom	300°±10°	250°±10°
Power Rating (315volts max)	0.75W@70°C 0W@125°C	0.5W@70°C 0W@125°C	0.5W@70°C 0W@125°C	0.25W@70°C 0W@125°C	0.5W@70°C 0W@125°C	0.25W@70°C 0W@125°C
Temperature Range	-55°C~+125°C	-55°C~+125°C	-55°C~+125°C	-55°C~+125°C	-55°C~+125°C	-55°C~+125°C
Temperature Coefficient	250 or ±100ppm/°C	250 or ±100ppm/°C	±250 or ±100ppm/°C	±250 or ±100ppm/°C	±250 or ±100ppm/°C	250 or ±100ppm/°C
Temperature Variation	-55°C,30min,+125°C, 30min,5 cycles, ΔR≤5%R, Δ(Uab/Uac)≤5%	-55°C,30min,+125°C, 30min,5 cycles, ΔR≤5%R, Δ(Uab/Uac)≤5%	-55°C,30min,+125°C, 30min,5 cycles, ΔR≤5%R, Δ(Uab/Uac)≤5%	-55°C,30min,+125°C, 30min,5 cycles, ΔR≤5%R, Δ(Uab/Uac)≤5%	-55°C,30min,+125°C, 30min,5 cycles, ΔR≤5%R, Δ(Uab/Uac)≤10%	-55°C,30min,+125°C, 30min,5 cycles, ΔR≤5%R, Δ(Uab/Uac)≤5%
Vibration	10 - 500Hz, 0.75mm, 6h ΔR≤5%R, Δ(Uab/Uac)≤7.5%R		10 - 500Hz, 0.75mm, 6h ΔR≤5%R, Δ(Uab/Uac)≤7.5%R			
Collision	390m/s ² ,4000cycles, ΔR≤2%R	390m/s ² ,4000cycles, ΔR≤2%R	390m/s ² ,4000cycles, ΔR≤2%R	390m/s ² ,4000cycles, ΔR≤2%R	100m/s ² ,4000cycles, ΔR≤2%R	390m/s ² ,4000cycles, ΔR≤2%R
Electrical Endurance at 70°C	0.75W@70°C,1000h, ΔR≤5%R, CRV≤3% or 5Ω	0.5W@70°C,1000h, ΔR≤10%R, R1≤100MΩ	0.5W@70°C,1000h, ΔR≤10%R, CRV≤3% or 5Ω	0.25W@70°C,1000h, ΔR≤10%R, CRV≤3% or 5Ω	0.5W@70°C,1000h ΔR≤10%R,Δ(Uab/Uac) ≤10%,CRV≤3% or 5Ω	0.25W@70°C,1000h, ΔR≤10%R, CRV≤4% or 5n
Rotational Life	200 cycles, ΔTR≤10%R, CRV≤3% or 5n	200 cycles, ΔTR≤10%R, CRV≤3% or 5n	200 cycles, ΔTR≤±10%R, CRV≤3% or 5n	200 cycles, ΔTR≤±10%R, CRV≤3% or 5Ω	200 cycles ΔTR≤10%R, CRV≤3% or 5n	200 cycles ΔTR≤10%R, CRV≤3% or 5n
Starting Torque	≤35mN·m	≤35mN·m	≤35mN·m	≤35mN·m	≤35mN·m	≤30mN·m
Marking	Resistance Tolerance (When no identification, it is of ±10%) Resistance Code, Model	Resistance Tolerance (When no identification, it is of ±10%) Resistance Code, Model	Resistance Tolerance (When no identification, it is of ±10%) Resistance Code, Model	Resistance Tolerance (When no identification, it is of ±10%) Resistance Code, Model	Resistance Tolerance (When no identification, it is of ±10%) Resistance Code, Model	Resistance Tolerance (When no identification, it is of ±10%) Resistance Code, Model
Standard Packaging	(25pcs, per tube)	(50pcs, per tube)				

Trimming Potentiometer

PRODUCT SPECIFICATIONS:			PRODUCT SPECIFICATIONS:			
	TSR-3313	TSR-3224		TSR-3318	TSR-3306	TSR-3309
Standard Resistance Range	10Ω - 1MΩ	10Ω - 1MΩ	Standard Resistance Range	100Ω ~ 1MΩ	100Ω ~ 1MΩ	10Ω ~ 2MΩ
Resistance Tolerance	±10%	±10%	Resistance Tolerance	±30%	±30% std	±30% std
Terminal Resistance	≤±1%R or 2Ω (whichever is larger)	≤±1%R or 2Ω (whichever is larger)	Absolute Minimum Resistance		1% max(≤2K=30Ω)	1% max(≤2K=30Ω)
Contact Resistance Variation	(CRV)≤±3%R or 3Ω (whichever is larger)	(CRV)≤±3%R or 3Ω (whichever is larger)	Contact Resistance Variation	10% max	CRV≤3% max	3% max
Insulation Resistance	≥1GΩ(500V DC)	≥1GΩ(100V DC)	Resistance	Infinite	Essentially	Essentially infinite
Withstand Voltage	101.3 kPa 600V · 8.5 kPa 250V	101.3 kPa 600V · 8.5 kPa 250V	Adjustment Angle	210°±20°	215° nom	235° nom
Effective Travel	11±2 turns nom	11±2 turns nom	Power Rating	100-500KΩ --50V >500KΩ -----25V 50°C-----0.1W	70°C,0.3W	70°C,0.5W
Power Rating	0.25W(70°C) 0W(125°C)	0.25W(70°C) 0W(125°C)	Temperature Range	-10°C to +70°C	-30°C ~ +100°C	-30°C ~ +100°C
Temperature Range	-55°CJ ~ +125°CJ	-55°CJ ~ +125°CJ	Temperature Coefficient	±1000ppm/°C	±250ppm/°C	±250ppm/°C
Temperature Coefficient	±100ppm/°C or ±250ppm/°C	±100ppm/°C or ±250ppm/°C	Load Life	240 hours 0.1 Watt 50°C(+5% - 20%)	1,000 hours 0.3W @ 70°C (3% ΔTR)	1,000 hours 0.5W @ 70°C (3% ΔTR)
Temperature Variation	R≤±2%R · Δ(Uab/Uac)≤±1%	R≤±2%R · Δ(Uab/Uac)≤±1%	Mechanical Angle		240°±10°	260°±10°
Vibration	10 - 500Hz, 0.75mm, 6h ΔR≤±1%R · Δ(Uab/Uac)≤±2%	10 - 500Hz, 0.75mm, 6h ΔR≤±1%R · Δ(Uab/Uac)≤±2%	Torque(Operating)		3.5oz -in.max	4.0oz -in.max
Collision	390m/s ² ,4000cycles, ΔR≤±1%R	390m/s ² ,4000cycles, ΔR≤±1%R	Stop Strength		7.0oz -in.max	7.0oz -in.max
Electrical Endurance at 70°C	0.25W · 1000h · ΔR≤±3%R	0.5W · 1000h · ΔR≤±3%R	Terminals		Solderable pins	Solderable pins
Rotational Life (200 cycles)	ΔR≤±(10%R+0.5Ω), CRV≤±3% or 5Ω	ΔR≤±(10%R+0.5Ω), CRV≤±3% or 5Ω	Marking		Resistance code, date code	Resistance code, date code
Starting Torque	≤10mN·m	≤25mN·m	Standard packaging		500pcs.Per code	2000pcs.Per bag
Stop Torque / Marking	≤25mN·m	Resistance Tolerance (When no identification, it is of ±10%) Resistance Code, Model	Aqueous cleaning not recommended			
Standard Packaging	1000pcs, per tape reel	250pcs, per tape reel				

Trimming Potentiometer

PRODUCT SPECIFICATIONS:							
	TSR-65M	TSR-805	TSR-625	TSR-655	TSR-855	TSR-633	TSR-825
Standard Resistance Range	100Ω to 1meg ohm (see standard resistance table)	100Ω to 1meg ohm (see standard resistance table)	100Ω to 1meg ohm (see standard resistance table)	100Ω to 1meg ohm (see standard resistance table)	100Ω to 1meg ohm (see standard resistance table)	100Ω to 1meg ohm (see standard resistance table)	100Ω to 1meg ohm (see standard resistance table)
Resistance Tolerance	±20%(TK±25%)	±20%(TK±25%)	±20%(TK±25%)	±20%(TK±25%)	±20%(TK±25%)	±20%(TK±25%)	±20%(TK±25%)
Adjustment Angle	240° ±20°	280° ±15°	240° ±20°	240° ±20°	280° ±15°	240° ±20°	280° ±15°
Residual Resistance	≤500Ω, 10Ω>500Ω, 2%(TK≤1KΩ, 2KΩ>1KΩ, 5%)	≤500Ω, 10Ω>500Ω, 2%(TK≤1KΩ, 2KΩ>1KΩ, 5%)	≤500Ω, 10Ω>500Ω, 2%(TK≤1KΩ, 2KΩ>1KΩ, 5%)				
Power Rating Max Working Voltage	100V	250V(TK0.1Watt)	100V	100V	250V(TK0.1Watt)	100V	250V(TK0.1Watt)
70°C	0.3Watt(TK0.1Watt)	0.3Watt(TK0.2Watt)	0.3Watt(TK0.1Watt)	0.3Watt(TK0.1Watt)	0.3Watt(TK0.2Watt)	0.3Watt(TK0.1Watt)	0.3Watt(TK0.2Watt)
Temperature Range	-30°C to +85°C (TK-10°C to +70°C)	-30°C to +100°C (TK-25°C to +100°C)	-30°C to +85°C (TK-10°C to +70°C)	-30°C to +85°C (TK-10°C to +70°C)	-30°C to +100°C (TK-25°C to 100°C)	-30°C to +85°C (TK-10°C to +70°C)	-30°C to +100°C (TK-25°C to 100°C)
Temperature Coefficient	±250ppm/°C (TK±1000ppm/°C)	±250ppm/°C (TK±1000ppm/°C)	±250ppm/°C (TK±1000ppm/°C)				
Rotational Life	±10%(TK±15%)	±10%(TK±15%)	±10%(TK±15%)	±10%(TK±15%)	±10%(TK±15%)	±10%(TK±15%)	±10%(TK±15%)
Load Life	500 hours 0.3 Watt 70°C ±5%(TK 240 hours 0.1 Watt 50°C +5%-20%)	1000 hours 0.3 Watt 70°C ±5%(TK 500 hours 0.2 Watt 70°C ≤100KΩ, +7% >100KΩ, ±10%)	500 hours 0.3 Watt 70°C ±5%(TK 240 hours 0.1 Watt 50°C +5%-20%)	500 hours 0.3 Watt 70°C ±5%(TK 240 hours 0.1 Watt 50°C +5%-20%)	1000 hours 0.3 Watt 70°C ±5%(TK 500 hours 0.2 Watt 70°C ≤100KΩ, +7% >100KΩ, ±10%)	500 hours 0.3 Watt 70°C ±5%(TK 240 hours 0.1 Watt 50°C +5%-20%)	1000 hours 0.3 Watt 70°C ±5%(TK 500 hours 0.2 Watt 70°C ≤100KΩ, +7% >100KΩ, ±10%)
Torque(Operating)	30~300gf.cm	50~350gf.cm	30~300gf.cm	30~300gf.cm	50~350gf.cm	30~300gf.cm	50~350gf.cm
Stop Strength	0.5kgf.cm	0.8kgf.cm	0.5kgf.cm	0.5kgf.cm	0.8kgf.cm	0.5kgf.cm	0.8kgf.cm
Soldering Conditions	240°C to 260°C And within 3 seconds	240°C to 260°C And within 3 seconds	240°C to 260°C And within 3 seconds				
Marking	Resistance Code	Resistance Code	Resistance Code				
Standard Packing	500 PCS Per bag	500 PCS Per bag	500 PCS Per bag				

Aqueous cleaning not recommended

Trimming Potentiometer

PRODUCT SPECIFICATIONS:				PRODUCT SPECIFICATIONS:	
	TSR-3329	TSR-105H	TSR-065		TSR-3305
Standard Resistance Range	50Ω~2MΩ	10Ω - 2MΩ	100Ω - 2MΩ	Standard Resistance Range	10Ω to 1MΩ (see standard resistance table)
Resistance Tolerance	±10%	±10%, ±20%, ±30%	±30%	Resistance Tolerance	±25%
Absolute Minimum Resistance	≤1%R or 10n			Adjustment Angle	220° ±20°
Contact Resistance Variation	CRV≤3% or 5n			Residual Resistance	≤1KV, 20Ω>1K, 2%
Insulation Resistance	R1≥1GΩ (100Vac)			Power Rating	50V
Withstand Voltage	500Vac			70°C	0.1Watt
Effective Travel	280° ±10°			Temperature Range	-55°C to 125°C
Power Rating (315volts max)	0.5W@70°C, 0W@125°C			Temperature Coefficient	±250ppm/°C
Temperature Range	-55°C~+125°C			Rotational Life	±10%
Temperature Coefficient	±250 or ±100ppm/°C			Load Life	100 hours 0.1 Watt 70°C +5%
Temperature Variation	-55°C, 30min, +125°C, 30min ΔR≤5%R, Δ(Uab/Uac)≤5%			Contact Resistance variation	5% max
Vibration	10-500Hz, 0.75mm, 6h ΔR≤5%R, Δ(Uab/Uac)≤7.5%R			Torque(Operating)	20~200gf.cm
Collision	390m/s², 4000cycles, ΔR≤5%R			Soldering Conditions	220°C to 240°C And within 5 seconds
Electrical Endurance at 70°C	0.5W@70°C, 1000h, ΔR≤10%R, CRV≤3% or 5Ω			Marking	Resistance Code
Rotational Life	(200 cycles) ΔTR≤4%R, CRV≤3% or 5n			Standard Packing	2000 Purchase / 7 REEL
Starting Torque	≤35mN·m			Aqueous cleaning not recommended	
Marking	Resistance Tolerance (When no identification, it is of ± 10%) Resistance Code, Model				
Standard Packaging	(50pcs, per tube)				
		Standard Resistance Range			
		Resistance Tolerance			
		Residual Resistance			
		Pesistance Taper			
		Rated Power			
		Operating Voltage			
		Potational Life			
		Load Life			
		Rotational Angle			
		Rotational Torque			
		Stop-end Strength			
		Operating Temp			
		Temp Characteristics			
		Humidity Char			
		Temperature			
		Time			

Trimming Potentiometer

Square SMD

PRODUCT SPECIFICATIONS:



TSR-3361

Standard Resistance Range	10Ω~2MΩ (see standard resistance table)
Resistance Tolerance	±10% std (tighter tolerance available)
Absolute Minimum Resistance	1% or 2 ohms (whichever is greater)
Contact Resistance Variation	3% or 3 ohms max (whichever is greater)
Voltage	±5%
Resistance	±0.15%
Resolution	Infinite
Insulation Resistance	500vdc 1,000 megohms min
Sea Level	900 vac
80,000 Feet	350 vac
Adjustment Angle	240 nom
Maximum Soldering Exposure	+245°C/10 seconds.
Power Rating (300 volts max)	70°C - 0.5 watt & 125°C - 0 Watt
Temperature Range	-55°C to 125°C
Seal Test	85°C Fluorinert
Humidity	MIL-STD-202 Method 103 96 hours (2% TR; 10 Megohms IR)
Vibration	30G (1% TR; 1% VR)
Shock	100G (1% TR; 1% VR)
Load Life	1000 hours 0.5 watt @ 70°C (3% TR; 3% or 3 ohms. Whichever is greater CRV)
Rotational Life	200 cycles(4% TR; 3% or ohms. Whichever is greater CRV)
Mechanical Angle	270 ohm
Toque	3.0oz - in.max
Stop Strength	7.0oz - in.max
Terminals	Solderable pins
Weight	0.02 oz
Marking	Resistance Code. Terminal numbers. Manufacturers model number style
Wiper	50% (Actual TR)±10%
Flammability	UL 94V-0
Standard Packaging	1,000 per reel
Adjustment Tool	H - 90

Precision Pots

PRODUCT SPECIFICATIONS:



TSR-3540S



TSR-3590

Standard Resistance Range	100 to 100K ohms	Standard Resistance Range	1KΩ~100KΩ
Total Resistance Tolerance	±5%	Resistance Tolerance	±5%
Independent Linearity	±0.25%	Independent Linearity	±0.5%
Effective Electrical Angle	3600°C ±10°C	Effective Electrical Travel	≥3600° ± 10°
Absolute Minimum Resistance/ Minimum Voltage	1 ohm or 0.2% max (Whichever is greater)	Treninal Resistance	≤0.2% or 5Ω
Noise/Output smoothness	100 ohms ENR max	Noise	≤3% R or 5Ω
Dielectric Withstanding Voltage (MIL-STD-202,method 301)	1000 VAC minimum	Insulation Resistance	R ≥1GΩ
Power Rating	2 watts 0 watt	Withstand Voltage	101.3kPa710V, 8.5kPa470V
Insulation Resistance(500 VDC)	1000 meg ohms min	Power Rating	0.5W@70°C, 0W@125°C
Resolution	See recommended part#	Temperature Range	-55°C~ +125°C
Operating Temperature Range	+1°C to +125°C	Temperature Coefficient	±100ppm/°C
Storage Temperature Range	-55°C to +125°C	Temperature Variation	ΔR ≤ ±2%R, Δ(Uab/Uac) ≤ ±1%
Temperature Coefficient Over Storage Temperature Range	±100 ppm/°C maximum/unit	Collision	390m/s ² , 4000cycles, R ≤ 1%R
Vibration	15G	Vibration	10-500Hz,0.75mm or 98m/s ² ,6h ΔR ≤ ±1%R, Δ(Uab/Uac) ≤ ±2%
Wiper Bounce	0.1 millisecond maximum	Climate Category	ΔR ≤ ±3%R, R _i ≥ 100MΩ
Shock	50G	Electrical Endurance at 70°C	2W,1000h, ΔR ≤ ±3%R
Load Life	1000 hours, 2 watts	Mechanical Endurance	10000 cycles, ΔR ≤ ±3%R
Total Resistance Shift	±2%	Steady damp-heat	ΔR ≤ ±3%R, R _i ≥ 100MΩ
Rotational Life(No load)	1,000,000 shaft revolutions	Total Mechanical Travel	≥3600° ± 10°
Total Resistance shift	±5% maximum	Staring Torque	≤360mN-m
Moisture Resistance	±2% maximum	Clutch Torque	≥300mN-m
IP Rating	IP 40	Standard Packaging	10pcs/box; 20pcs/box
Stop Strength	53 N-cm (75 oz-in) minimum		
Mechanical Angle	3600°C ±10°C		
Torque(Starting & Running)	0.35 N-cm(0.5 oz-in) max		
Mounting	170-200 N-cm (15-18 lb.-in.)max		
Backlash	1.0°C maximum		
Weight	Approximately 21 gm		
Soldering Condition Manual Soldering	96.5Sn/3.0Ag/0.5Cu solid wire or no-clean rosin cored wire;370°C(700°F)max. For 3 seconds		
Wave Soldering	96.5Sn/3.0Ag/0.5Cu solid wire or no-clean flux; 260°C(500°F)max. For 5 seconds		
Wash Processes	Not recommended		
Marking	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram and date code		
Ganging(Mutiple Section Pots)	2 cups maximum		
Hardware	One lockwasher(H-37-2) and one mounting nut (H-38-2) is shipped with each potentiometer		