

Descriptions

Semiconductor strain gauge is featured with big sensitivity coefficient, small mechanical lag, wide resistance range as well as small transversal effect, it is the commonly used element for transducer manufacturing and engineering stress analysis, Semiconductor strain gauges are not only used for surveying stress distribution, or static measurement for machinery, ships, bridges, aviation, but also used for non-linearity compensation of foil transducers.

UTOP not only manufactures all kinds of standard semiconductor strain gauges, but also provide special semiconductor strain gauges like medium temperature, or no backing (naked) types semiconductor strain gauges.




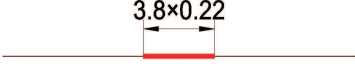
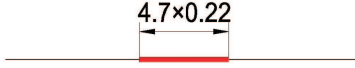
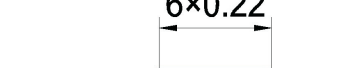
Application

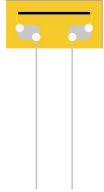

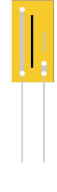


- Non-linearity compensation for transducers.
- Application in machinery, ships, bridges, aviation etc.
- Used in micro pressure sensor

Technical specifications

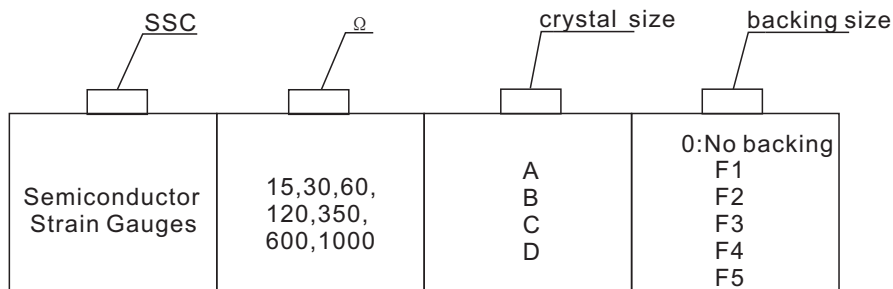
Gauge Pattern	SSC-15	SSC-30	SSC-60	SSC-120	SSC-350	SSC-600	SSC-1000	
Gauge Resistance(Ω)	15 \pm 5%	30 \pm 5%	60 \pm 5%	120 \pm 5%	350 \pm 5%	600 \pm 5%	1000 \pm 5%	
crystal size(mm)	B,C	B,C	B,C	A,B,C	B,C	C	C,D	
Backing L×W(mm)	0,F2,F3, F4,F5	0,F2,F3, F4,F5	0,F2,F3, F4,F5	0,F2,F3, F4,F5	0,F2,F3, F4,F5	0,F2,F3, F4,F5	C:0,F2,F3,F4,F5 D:0,F1,F3	
Gauge Factor	100	100	120	A:150 B.C:120	150	200	C:200 D:150	
TCR*(%/°C)	0.10	0.10	0.15	0.13	0.30	0.45	C:0.40 D:0.30	
TCGF**(1/°C)	-0.12	-0.12	-0.18	A:-0.35 B.C:-0.18	-0.35	-0.48	C:-0.48 D:-0.35	
working current(mA)	50	50	50	A:20 B.C:50	30	20	20	
working Temp.(°C)	NO backing: -40°C~+150°C				With backing: -30°C~+80°C			
Strain Limit($\mu\epsilon$)	5000	5000	5000	5000	5000	5000	5000	

Dimensions

types	model	crystal	size: (L*W*H mm)	resistance (Ω)
NO Backing	A		1.27*0.22* (0.02~0.03)	15,30,60,120
	B		3.8*0.22* (0.02~0.03)	15,30,60,120,350
	C		4.7*0.22*0.02	15,30,60,120, 350,600,1000
	D		6*0.22*0.02	1000
Note	①A, B, C, D these gauges are made with golden wires at two side, and the wire length ≥ 6mm ②the golden wire length can be longer as request, but not exceeds 12mm.			

types		F1	F2	F3	F4	F5
with backing	Configuration					
	size	backing: 8*4mm crystal: D lead wire: 30	backing: 7*4mm crystal: B, C lead wire: 30	backing: 8*3.5mm crystal: B, C, D lead wire: 30	backing: 8*2.5mm crystal: B, C lead wire: 30	backing: 6*3.5mm crystal: B, C lead wire: 30
Note	① the backing material is modified phenolic resin. ② the leadwire is copper wire with silver coated. ③ the solder dot is lead-free solder.					

Ordering code



example: SSC-1000-A-F2

means: semiconductor strain gauge; resistance: 1000Ω; crystal size: 4.7*0.22*0.02; backing size: 7*4