



STRAIN GAGE SERIES

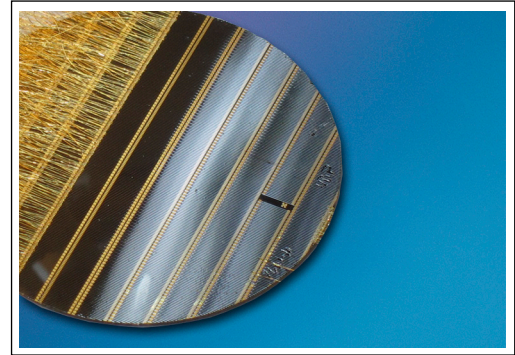
When compared to conventional metallic wire and foil gages, Kulite semiconductor gages offer some significant advantages:

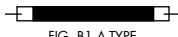

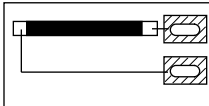
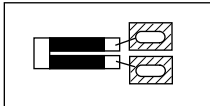
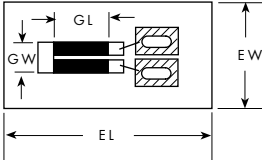
- Higher Sensitivity
- Smaller Sizes
- Higher Resistance
- Higher Fatigue Life
- Lower Hysteresis
- Lower Non-linearity
- Increased Temperature Envelope

The semiconductor strain gage may be thought of as a strain sensitive resistor. Generally when bonded to a stressed member, its resistance changes as a function of applied strain. This characteristic makes it useful in the fields of stress analysis, physical measurements, testing, transducer and instrumentation manufacture. Additionally, the latest Silicon-On-Insulator (SOI) technology enables the fabrication of the high temperature strain gages with enhanced performance characteristics. These gages, as well as all other silicon based strain gages, are easily optimized for specific customer applications and have been found by customers to be truly superior to their foil gage counterparts.

For further information, please download our Strain Gage Manual, which can be found on the *Reference Library* page at www.kulite.com.

Kulite recommends the [KSC Series](#) of signal conditioners to maximize the measurement capability of the Strain Gage Series.



GAGE TYPES	GAGE GEOMETRY	GAGE CONSTRUCTION
 <p>FIG. B1 A-TYPE</p>  <p>FIG. B2 U-TYPE</p>	 <p>FIG. E1 S/A-TYPE</p>  <p>FIG. E2 S/U-TYPE</p> 	<p>A - Bare straight gage, welded axial leads - Fig. B1</p> <p>U - Bare U gage, welded leads - Fig. B2</p> <p>S - Encapsulated gage, solder tab terminals - Fig. E1, E2</p>

STRAIN GAGE CHARACTERISTICS AND SELECTION TABLE

GAGE DOPING CODE	GAGE CHARACTERISTICS	PART NUMBER	FIGURE	(GL) EFFECTIVE LENGTH ±5%	(GW) GAGE WIDTH ±5%	(EL) (EW) ENCAPSULATION	
						LENGTH ±10%	WIDTH ±10%
C	G.F.	+ 100	ACP-15-150	B1	.100		
	TCR	+ 4%	ACP-30-150	B1	.100		
	TCGF	- 6%	ACP-120-300	B1	.250		
	Linearity	± 0.2%	UCP-120-090	B2	.060		
			S/ACP-120-300	E1	.250		.500
			S/UCP-120-090	E2	.060		.280
D	G.F.	+ 115	ADP-250-220	B1	.186		
	TCR	+ 3%	ADP-350-300	B1	.250		
	TCGF	- 8%	UDP-350-175	B2	.140		
	Linearity	± 0.2%	S/ADP-350-300	E1	.250		.500
			S/UDP-350-175	E2	.140		.350
E	G.F.	+ 130	AEP-350-220	B1	.170		
	TCR	+ 6%	AEP-500-300	B1	.250		
	TCGF	- 10%	UEP-350-060	B2	.030		
	Linearity	± 0.2%	UEP-350-090	B2	.060		
			S/AEP-500-300	E1	.250		.500
			S/UEP-350-090	E2	.060		.280
F	G.F.	+ 140	AFP-500-090	B1	.060		
	TCR	+ 10%	AFP-350-090	B1	.060		
	TCGF	- 11%	UFP-750-090	B2	.060		
	Linearity	± 0.2%	S/AFP-500-090	E1	.060		.280
			S/UFP-750-090	E2	.060		.280
G	G.F.	+ 155	AGP-350-090	B1	.060		
	TCR	+ 18%	AGP-500-090	B1	.060		
	TCGF	- 13%	AGP-1000-300	B1	.250		
	Linearity	± 0.2%	UGP-1000-060	B2	.030		
			UGP-1000-090	B2	.065		
			S/AGP-1000-300	E1	.250		.500
		S/UGP-1000-090	E2	.060		.280	
H	G.F.	+ 175	AHP-10000-220	B1	.170		
	TCR	+ 45%	AHP-10000-300	B1	.250		
	TCGF	- 23%	UHP-5000-060	B2	.030		
	Linearity	± 0.2%	S/AHP-10000-220	E1	.170		.250
			S/AHP-10000-300	E1	.250		.500
			S/UHP-5000-060	E2	.030		.250

Nominal Gage Resistance (Ω) Indicated in Red

Note: Dimensions are in inches. All dimensions nominal. (E)

Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved.

Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.