



# COMPONENT NEWS

EVALUATION ENGINEERING

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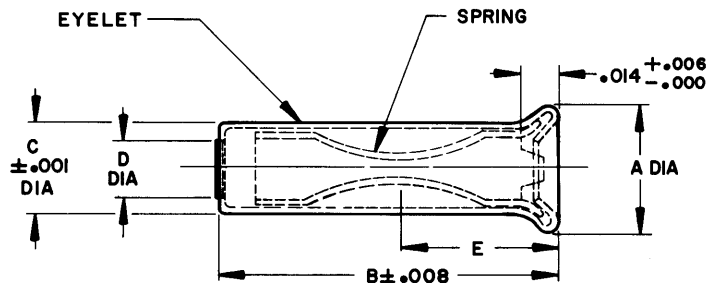
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## SUB-MINIATURE SOCKETS

The following list is an up to the minute summary of all currently purchased and stocked sub-miniature sockets. We are making this information available to help in the selection of appropriate available sockets and prevent unnecessary introduction of new parts.

For more information call Ext 417.

-Stan Chojceki



TEK P/N	VENDOR & NO	PIN DIA INCH	DIMENSIONS IN INCH					FINISH EYELET/SPRING	COMMENTS
			A	B	C	D	E		
136-0252-00	AMP 3-330808-7	.017-.019 or .018-.020	.057 MAX	.138	.038	0	App. .070	TIN/TIN	
-01	AMP 1-332095-2	.016-.019	.057 MAX	.178	.039	0	App. .090	TIN/TIN	
-0254-00	AMP 1-331892-5	.034-.041	.086 MAX	.260	.069	0	App. .125	TIN/TIN	
-01	AMP 1-331892-7	.034-.041	.086 MAX	.260	.069	.046	App. .125	GOLD/TIN	Open Bottom
-0261-00	AMP 1-331677-6	.022-.024 or .023-.025	.077 MAX	.138	.060	0	App. .070	TIN/TIN	
-0333-00	AMP 1-331677-4	.030-.032 or .031-.033	.077 MAX	.138	.060	0	App. .070	GOLD/GOLD	
-0338-00	AMP 1-332075-5	.026-.033	.077 MAX	.260	.060	0	App. .125	TIN/TIN	
-01	AMP 1-332075-7	.026-.033	.077 MAX	.260	.060	.037 ±.003	App. .125	TIN/TIN	Open Bottom
-0352-00	AMP 50872-2	.018-.021	.067 MAX	.178	.050	0	App. .090	TIN/TIN	

## INCANDESCENT LAMP PARAMETERS

The following incandescent lamp parameters are listed as a reference and aid in lamp applications:

LIFE: Inversely proportional to the 12th power of the applied voltage

$$\left(\frac{V_1}{V}\right)^{12} \times \text{life at rated voltage}$$

V = application voltage

V<sub>1</sub> = design voltage

When "derating" a lamp to increase its life, loss of light output must be taken into consideration.

CANDLE POWER: Directly proportional to the 3.5 power of the applied voltage

$$\left(\frac{V}{V_1}\right)^{3.5} \times \text{light output at design voltage}$$

Miniature lamp light output is most often rated as mean spherical candle power (MSCP), and this value is an integrated value of total light output.

CURRENT: Lamp consumption current is proportional to the 0.55 power of the applied voltage

$$\left(\frac{V}{V_1}\right)^{.55} \times \text{current at design voltage}$$

INRUSH CURRENT: Approximately 10 times its design current. This value will vary with ambient temperature.

DESIGN CURRENT: Most often specified to a tolerance of ±10% at design voltage.

SHOCK & VIBRATION: Higher mechanical strength to shock and vibration is realized in high current/low voltage filaments than in low current/high voltage filaments. Lamps are 8 to 10 times less sensitive to shock and vibration when cold than when hot.

LIGHT INTENSITY: Illumination at some given point follows the inverse square law I.E. proportional to the source intensity and inversely proportional to the square of the distance to the source.

Increasing light intensity at some area may be accomplished by one of several methods, some of which are listed.

1. Place lamp closer to object.
2. Bright plating of background to increase reflectivity.
3. Using lens ended lamps
4. Using light pipes
5. Using fiber optics

OPERATING TEMPERATURE: All subminiature lamp manufacturers state that outgassing of the lamp envelope will occur between 130°C/140°C. Caution should be exercised to provided heat removal either through radiation, convection and or conduction.

RISE TIME: Time for cold to hot operating temperatures may be varied from 10 to 300 milliseconds depending on filament wire diameter, coil size and spacing.

For further information call Ext 416.

-Clint Berry