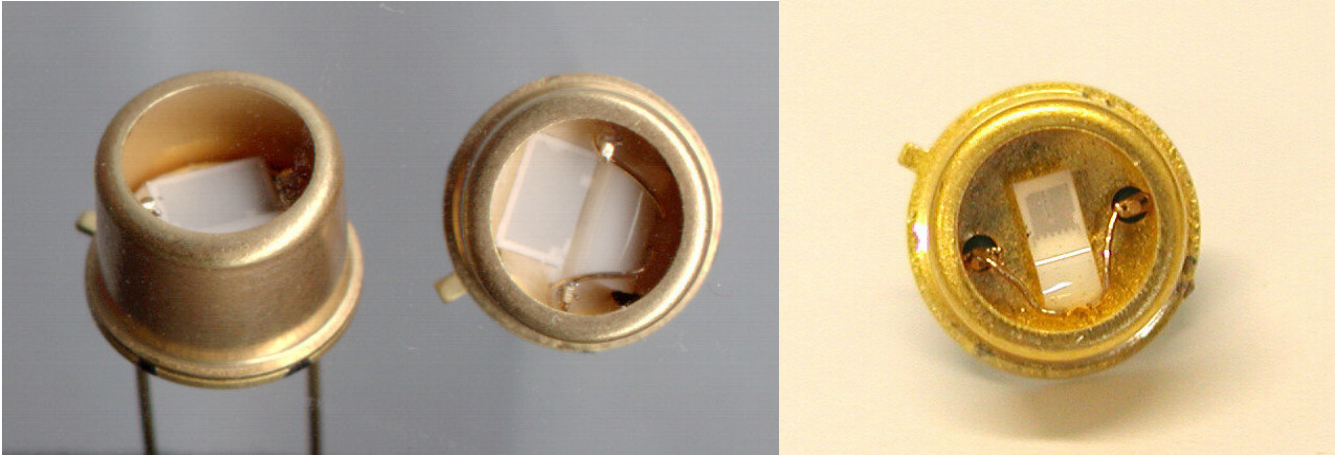


# SERIES 40

## THIN FILM 1.2 & 4 WATT INFRA-RED EMITTERS

This IR source is a high emissivity thermal emitter which can be modulated at low frequencies. It is appropriate for use in lab or field instrumentation due to its long life and stable properties.



The IR source is based on a thin film which operates at approximately 600°C (875K) when powered with 35 V for the IR-40 and 13V for the IR-43. The radiating element is a 1.5µm film of precision laser trimmed resistance material which has a high emissivity in the infra-red spectral region. The element is permanently bonded to a flat substrate of alumina forming a fixed and stable platform. This contributes to a uniform radiating source.

Operation in a controlled or sealed atmosphere is not required. Due to the low thermal mass of these parts, they can be modulated at rates up to a few Hz. For higher modulation speeds, the Series 50 IR sources should be considered.

| Part #  | Description                                |
|---------|--|
| IR-40NC | 4W TO5 header no cap                       |
| IR-40   | 4W TO5 header with cap (as picture above)  |
| IR-40S  | 4W TO5 header with cap and sapphire window |

|                 |                            |
|-----------------|----------------------------|
| Temperature     | 600°C (875K)               |
| Voltage         | 35.0 volts RMS (AC or DC)  |
| Current         | 0.115 Amps                 |
| Active Area     | 3.5 x 2.5 mm               |
| Modulation Rate | A few Hz                   |
| Lifetime        | 3+ years at 600°C, typical |
| Emissivity      | 0.8                        |

| Part #  | Description                                  |
|---------|--|
| IR-43NC | 1.2W TO5 header no cap                       |
| IR-43   | 1.2W TO5 header with cap (as picture above)  |
| IR-43S  | 1.2W TO5 header with cap and sapphire window |

|                 |                            |
|-----------------|----------------------------|
| Temperature     | 600°C (875K)               |
| Voltage         | 13.0 volts RMS (AC or DC)  |
| Current         | 0.090 Amps                 |
| Active Area     | 1.5 x 1.5 mm               |
| Modulation Rate | A few Hz                   |
| Lifetime        | 3+ years at 600°C, typical |
| Emissivity      | 0.8                        |

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Issue 1.4

