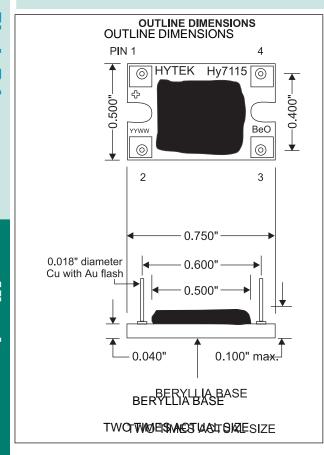


icrosystems

#### Features:

- → Beryllia base for good thermal conduction
- ♦ Regulation temperature from 40°C to 100°C
- ◆ Electrically isolated from the case
- ◆ Epoxy encapsulated
- → 3 to 7 volt operation



# Miniature Proportionally Controlled Heater

## **Description:**

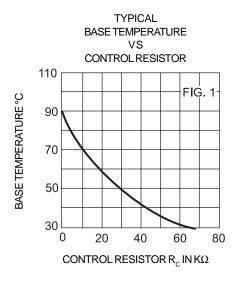
The HY7115 is a miniature proportionally controlled heater whose temperature can be programmed with a single external resistor. This device is ideally suited for regulating the temperature of sensitive electronic components such as microwave filters, planar optical waveguides, multiplexers and crystal oscillators. The HY7115 in a ceramic package can supply up to 14 Watts of power from a 8 Volt supply.

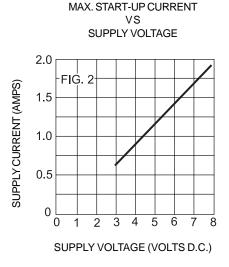
### Maximum ratings:

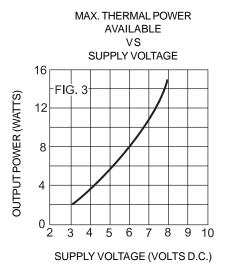
Rating	Symbol	Value	Unit
Supply Voltage	Vdd	8	Vdc
Reverse Voltage	VR	0	Vdc
Power Dissipation	Po	14	Watts
Operating Temperature (Case)	TMAX/MIN	100/–20	℃
Storage Temperature Range		-65 to +150	°C

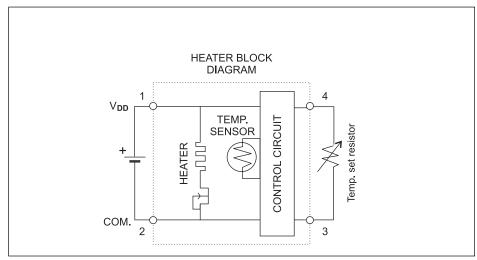
# Operating characteristics:

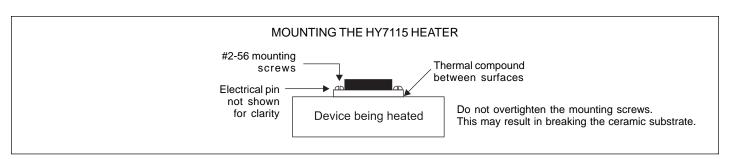
Characteristic	Symbo	Min	Max	Unit
Supply Voltage (Pin 1 to Pin 2)	Vdd	+3	+8	Vdc
Steady State Supply Current @ VDD = +5 Vdc	I <sub>s</sub>	0.015	1.16	Adc
Temperature variation over operating voltage (no load)	$\Delta T_{V}$		1	℃
Temperature variation with load and Vs = 5V	$\DeltaT_L$		1	°C
Control Temperature Range	$\Delta T_{C}$	40	100	°C
Control Resistor Value (P3-P4)	R <sub>c</sub>	0	60K	Ω
Max. Control Temp. ( $R_C$ =0 $\Omega$ )	TMAX	-	100	°C
Turn-on Power (V <sub>DD</sub> = 5V)	PD	5.6	6.0	Watts











#### NOTES:

- 1. Optimum heat transfer between the HY7115 and the device being heated occurs when a thermal compound, such as Dow Corning 340, is applied to the mounting surface of the heater.
- 2. Special environmental and electrical screening is available on request.
- 3. Special custom engineered micro-heater available on request.