



TABLE 1. PIN DESCRIPTION

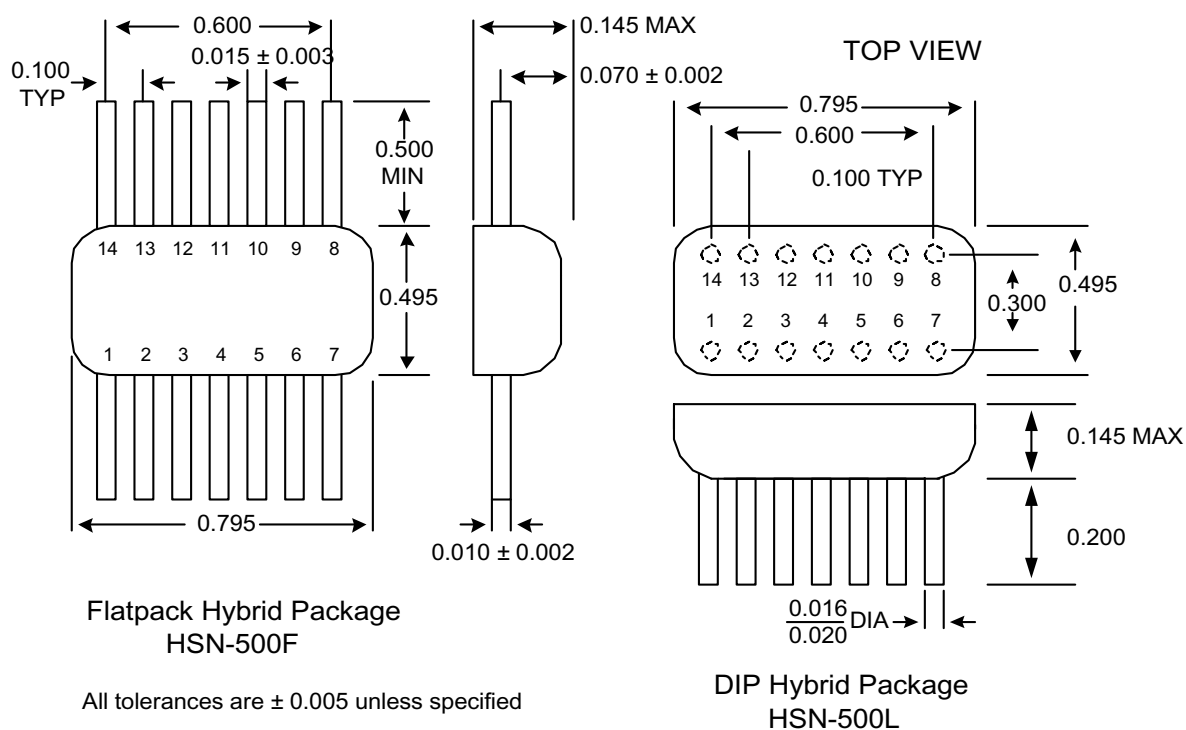
PIN NUMBER	PIN FUNCTION
1	Load Voltage, $V_L$
2	Nuclear Event Detector, $\overline{NED}$
3	No Connection
4	External Capacitor
5	External Capacitor
6	Built In Test, BIT
7	Package Ground and Case
8	PIN Diode Bias, $V_B$
9	Threshold Adjust
10	No Connection
11	No Connection
12	No Connection
13	No Connection
14	Hardened Supply Voltage, $V_H$

TABLE 2. ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	CONDITIONS $-55^{\circ}\text{C} \leq T_A \leq 125^{\circ}\text{C}$	MIN	MAX	UNIT	GROUP A SUBGROUP
Hardened Supply Voltage	$V_H$		4.5	5.5	V	1,2,3
Hardened Supply Current - Standby <sup>1</sup> - Operational <sup>2</sup>	$I_H$	$V_H = 5.5\text{V}$	--	30 120	mA	1,2,3
Load Voltage	$V_L$		--	20	V	1,2,3
Load Current - Standby <sup>1</sup> - Operational <sup>2</sup>	$I_L$	$V_L = 20\text{V}$	--	100 2.25	$\mu\text{A}$ mA	1,2,3
PIN Diode Bias Voltage - Standby <sup>1</sup>	$V_B$		4.5	20	V	1,2,3
PIN Diode Bias Current - Standby <sup>1</sup>	$I_B$		--	100	$\mu\text{A}$	1,2,3
Built-In-Test (BIT) <sup>3,4</sup>	$V_{IH}$	$V_{IH} = 4.0\text{V}$ $V_{IL} = 0.5\text{V}$ Pin 9 Open, $V_{IH} = 4.0\text{V}$	4.0	5.5	V	7,8
	$I_{IH}$		--	25	mA	1,2,3
	$V_{IL}$		--	0.5	V	7,8
	$I_{IL}$		--	10	$\mu\text{A}$	1,2,3
	$t_{PW}$		10	--	$\mu\text{s}$	9,10,11
$\overline{NED}$	$V_{OH}$	$V_L = 20\text{V}$ , $I_{OH} = -100\ \mu\text{A}$ $I_{OL} = 10\ \text{mA}$ $I_{OL} = 100\ \text{mA}$	18.5	--	V	1,2,3
	$V_{OL}$		--	0.6		1,2,3
			--	1.0		
Radiation Propagation Delay Time <sup>5</sup>	$t_D$		--	20	ns	

**Table 2. Notes**

1. Standby mode is the normal state of the device, defined as having the  $\overline{\text{NED}}$  output (pin 2) in the "high" state.
2. Operational mode is in effect during the timeout period of the NED signal, characterized by having the NED output in the "low" state, causing the greatest current draw of the device.
3. BIT electrical characteristics are not guaranteed over the radiation range.
4. BIT may not meet specification when only a resistor is used to adjust the detection level. To use BIT in this situation, it is advised that a series resistor/capacitor combination is used.
5. Guaranteed but not tested over temperature. Time delay,  $t_D$ , is measured at 50% points from the rising edge of the radiation pulse to the falling edge of the  $\overline{\text{NED}}$  output at approximately 10 times the detection level.



### MECHANICAL DIMENSIONS

Note: All dimensions in inches.

## Important Notice:

The specifications presented within these data sheets represent the latest and most accurate information available to date. However, these specifications are subject to change without notice and Maxwell Technologies assumes no responsibility for the use of this information.

Maxwell Technologies' products are not authorized for use as critical components in life support devices or systems without express written approval from Maxwell Technologies.

Any claim against Maxwell Technologies must be made within 90 days from the date of shipment from Maxwell Technologies. Maxwell Technologies' liability shall be limited to replacement of defective parts.

## Product Ordering Options

