

**Features**

- ◆ Surface Mount Packages
- ◆ RoHS Compliant
- ◆ 260°C Reflow Compatibility
- ◆ Low Loss, High Isolation Switching Diodes
- ◆ Tape and Reel Packaging

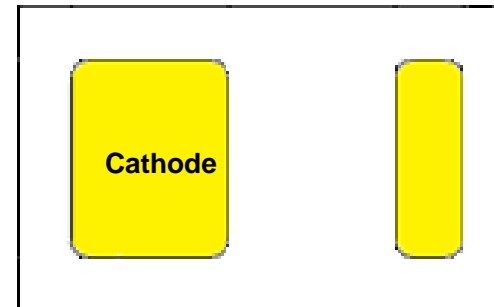
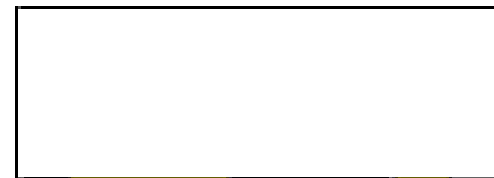
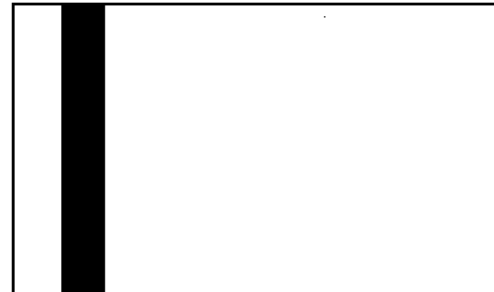
**Description and Applications**

M/A-COM Technology Solutions offers these silicon PIN diodes in a low cost, surface mount plastic package for use as a switch or attenuator. These diodes are offered with 100% matte Sn plating on and are RoHS compliant devices. These PIN diodes feature optimized I-region lengths which results in low resistance, low capacitance device for various microwave control circuit applications.

The MADP-010631-13920T offers the lowest series resistance and the best performance as a low loss series or high isolation shunt switch.

The MADP-010630-13920T offers the lowest capacitance and highest isolation when used as a series or series-shunt switch through 3GHz.

**Package Style 1392**



**Absolute Maximum Ratings**

**T<sub>AMB</sub> = 25°C (unless otherwise specified)**

Parameter	Absolute Maximum
Forward Current	150mA
Reverse Voltage	-100V
Operating Temperature	-65°C to +125°C
Storage Temperature	-65°C to +150°C
Junction Temperature	+175°C
Mounting Temperature	+260°C for 30 secs.

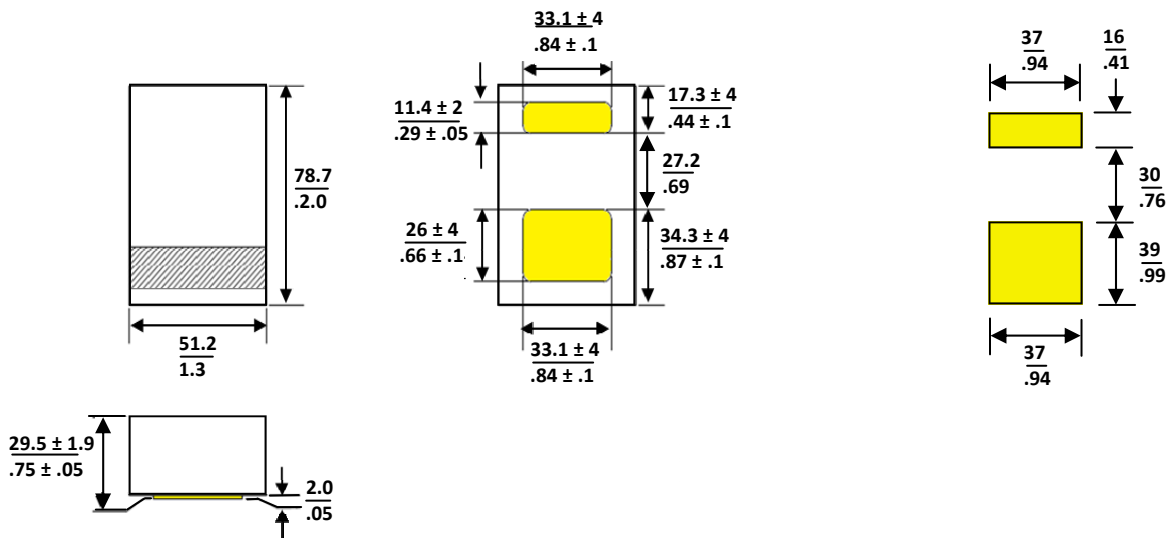
**Electrical Specifications @ T<sub>AMBIENT</sub> = 25°C**

RoHS Compliant Part Number	Maximum Incident Power	Reverse Voltage <sup>1</sup> (V)	Total Capacitance <sup>2</sup> Max. (pF)	R <sub>S</sub> @ 10 mA <sup>3</sup> Max. (Ohms)	Nominal Characteristics	
					Carrier Lifetime <sup>4</sup> (μs)	I-Region Thickness (mils)
MADP-010630-13920T	40W	100	0.35 @ 20V	1.5	0.2	0.4
MADP-010631-13920T	25W	100	1.00 @ 20V	0.5	0.2	0.4

1. The reverse current will not exceed 10 μA at the reverse voltage rating.
2. Total capacitance is measured at 1 MHz at the indicated voltage.
3. Series resistance is measured at the specified current and a frequency of 100 MHz.
4. Nominal minority carrier lifetime is measured at I<sub>F</sub> = 10 mA, I<sub>R</sub> = 6 mA, 90% recovery.

**Package Style 1392**

**Mounting Pad Configuration**



All dimensions are in mils / millimeters

Typical Resistance vs. DC Bias Current @ 100 MHz

