

## 5082-3080

# SILICON PIN DIODE

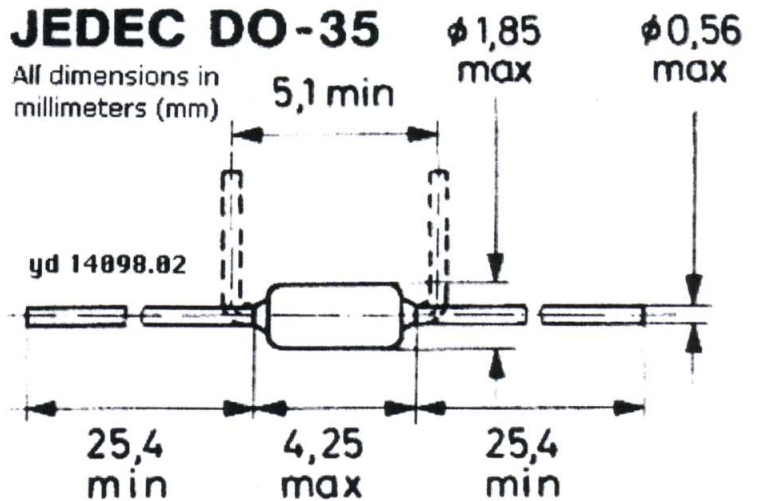
### Description/Applications

These general purpose switching diodes are intended for low power switching applications such as RF duplexers, antenna switching matrices, digital phase shifters, and time multiplex filters.

The RF resistance of a PIN diode is a function of the current flowing in the diode. These current controlled resistors are specified for use in control applications such as variable RF attenuators, automatic gain control circuits, RF modulators, electrically tuned filters, analog phase shifters, and RF limiters.

### MAXIMUM RATINGS

I	250 mA
V	100 V
P <sub>DISS</sub>	250 mW @ T <sub>C</sub> = 25 °C
T <sub>J</sub>	-65 °C to +150 °C
T <sub>STG</sub>	-65 °C to +150 °C
T <sub>SOLD</sub>	260 °C for 5 sec.



### CHARACTERISTICS T<sub>C</sub> = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
V <sub>R</sub>	I <sub>R</sub> = 10 $\mu$ A	100			V
V <sub>F</sub>	I <sub>F</sub> = 100 mA		1.0		V
$\tau$	I <sub>F</sub> = 50 mA      I <sub>R</sub> = 250 mA		1300		$\mu$ S
R <sub>S</sub>	I <sub>F</sub> = 100 mA      f = 100 MHz			2.5	$\Omega$
C <sub>t</sub>	V <sub>R</sub> = 50 V      f = 1.0 MHz			0.4	pF
R <sub>H</sub>	I <sub>F</sub> = 10 $\mu$ A      f = 100 MHz	1000			$\Omega$
R <sub>L</sub>	I <sub>F</sub> = 20 mA      f = 100 MHz			8.0	$\Omega$