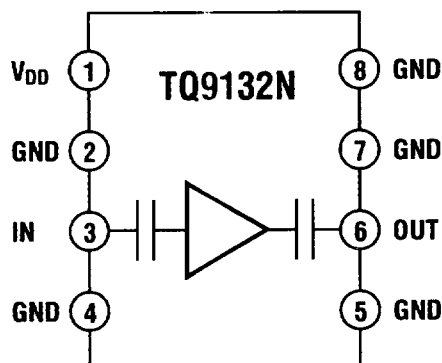


## TQ9132N

## Block Diagram



## Product Description

The TQ9132 Amplifier is part of TriQuint's MMIC/RFIC Building Block family. It is an 800 – 2500 MHz amplifier capable of providing moderate output power (50 mW) for a wide variety of transmit and receive applications. The amplifier's input and output are matched to 50  $\Omega$  with internal circuitry, simplifying interfaces to 50  $\Omega$  systems. In addition, DC blocking capacitors are included on chip, permitting direct connections to the input and output. Its 8-pin surface-mount package and low cost are well suited to many wireless communications applications.

## Electrical Characteristics

Test Conditions:  $V_{DD} = +5\text{ V}$ ,  $T_A = 25^\circ\text{C}$ , Frequency 2000 MHz

	Symbol	Min.	Typ.	Max.	Units
Frequency of operation		800		2500	MHz
Gain	G		17		dB
Noise Figure	NF		4.1		dB
1 dB Gain Compression	P1dB		+17		dBm
3rd Order Intercept - Output	IP3		+27		dBm
DC Supply Current	$I_{DD}$		85		mA
Input Return Loss	$S_{11}$		12		dB
Output Return Loss	$S_{22}$		12		dB

## 50 mW Driver Amplifier

## Features

- 800 – 2500 MHz operation
- 17 dB gain @ 2000 MHz
- Single 3 V to 6 V supply
- Input and output matched to 50  $\Omega$
- SO-8 plastic package
- +17 dBm output power

## Applications

- Power Amplifier Drivers
- PCN Medium-Power Amplifiers
- Medium-Power WLANs
- Base Station Receivers

# TQ9132N

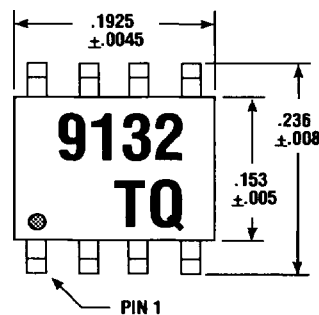
**PRELIMINARY**

## Absolute Maximum Ratings

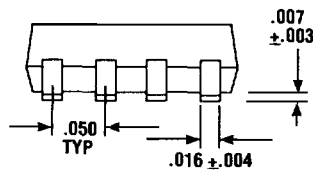
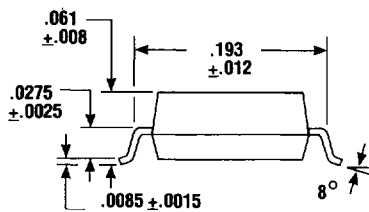
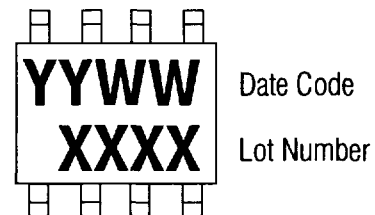
	<b>Symbol</b>	<b>Max.</b>	<b>Units</b>
DC Power Supply	$V_{DD}$	7.0	V
Power Dissipation	$P_D$	500	mW
Input Power	$P_{IN}$	+10	dBm
Storage Temperature	$T_{STO}$	-55 to +150	°C
Operating Temperature	$T_{OPR}$	-40 to +85	°C
Thermal Resistance	$\theta_{JA}$	100	°C/W

*ESD-sensitive device - Class 1*

## SO-8 Plastic Package (N Suffix)



## Bottom Marking



## Ordering Information

**TQ9132**

NR - 2500 / 13" reel

N - Shipping tube

For more information contact  
nearest Sales Office or TriQuint's  
Customer Service Department:

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Reorder Number TQ9132N.A

Revision A.7, December 3, 1993

**TriQuint**   
SEMICONDUCTOR