

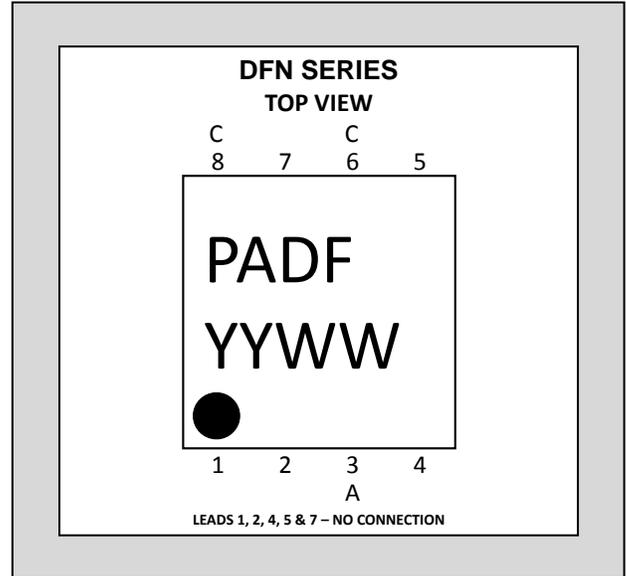
LINEAR SYSTEMS

Improved Standard Products®

PAD-DFN SERIES

MINIATURE/NON MAGNETIC
8-PIN DFN PACKAGE
LOW LEAKAGE DIODE

FEATURES	
REVERSE BREAKDOWN VOLTAGE	$BV_R \geq -30V$
REVERSE CAPACITANCE	$C_{RSS} \leq 2.0pF$
ABSOLUTE MAXIMUM RATINGS ¹	
@ 25 °C (unless otherwise stated)	
Maximum Temperatures	
Storage Temperature	-55 to +150 °C
Operating Junction Temperature	-55 to +150 °C
Maximum Power Dissipation ²	
Continuous Power Dissipation	300mW
Maximum Currents	
Forward Current	10mA



COMMON ELECTRICAL CHARACTERISTICS @ 25 °C (unless otherwise stated)

SYMBOL	CHARACTERISTIC	MIN	TYP	MAX	UNITS	CONDITIONS
BV_R	Reverse Breakdown Voltage	-30			V	$I_R = -1\mu A$
V_F	Forward Voltage		0.8	1.5		$I_F = 5mA$
C_{RSS}	Total Reverse Capacitance		1.5		pF	$V_R = -5V, f = 1MHz$

SPECIFIC ELECTRICAL CHARACTERISTICS @ 25 °C (unless otherwise stated)

SYMBOL	CHARACTERISTIC	TYP	UNITS	CONDITIONS	
I_R	Maximum Reverse Leakage Current	PAD5DFN	-5	pA	$V_R = -20V$
		PAD50DFN	-50		

Figure 1. Operational Amplifier Protection

Input Differential Voltage limited to 0.8V (typ) by DFNs D1 and D2. Common Mode Input voltage limited by DFNs D3 and D4 to ±15V.

Figure 2. Sample and Hold Circuit

Typical Sample and Hold circuit with clipping. DFN diodes reduce offset voltages fed capacitively from the JFET switch gate.

FIGURE 1

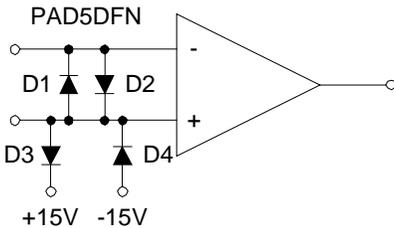
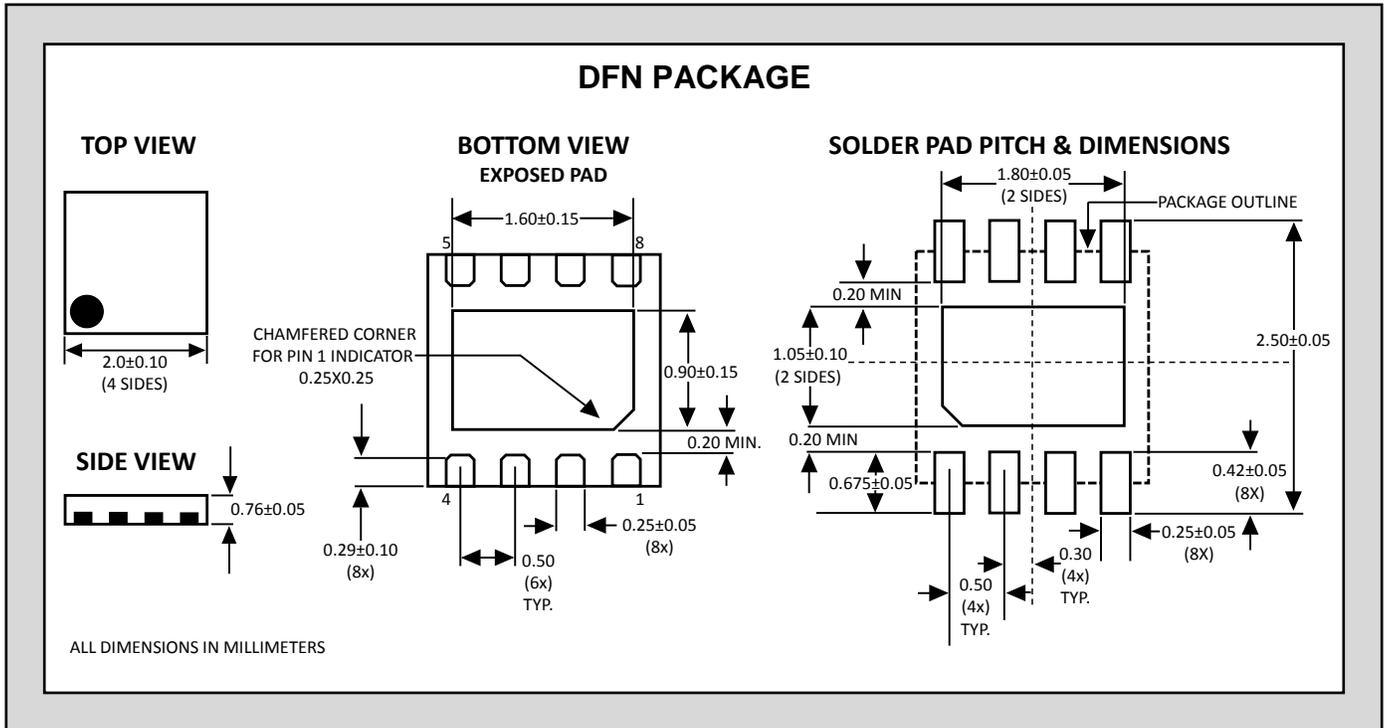
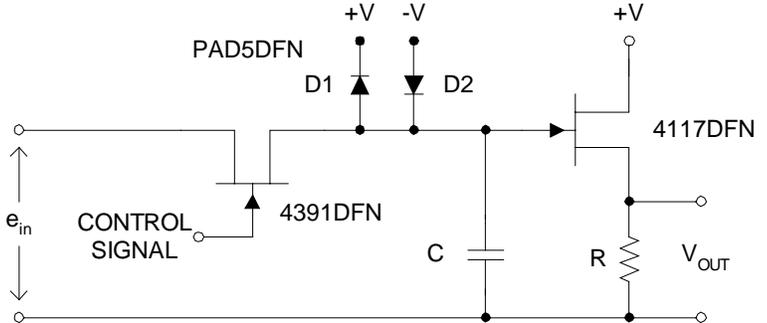


FIGURE 2



NOTES

1. Absolute maximum ratings are limiting values above which serviceability may be impaired.
2. Derate 2.8 mW/°C above 25°C
3. The PAD type number denotes its maximum reverse current value in pico amperes. Devices with I_R values intermediate to those shown are available upon request.

Information furnished by Linear Integrated Systems is believed to be accurate and reliable. However, no responsibility is assumed for its use; nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Linear Integrated Systems.

Linear Integrated Systems develops and produces the highest performance semiconductors of their kind in the industry. Linear Systems, founded in 1987, uses patented and proprietary processes and designs to create its high performance discrete semiconductors. Expertise brought to the company is based on processes and products developed at Amelco, Union Carbide, Intersil and Micro Power Systems by company founder John H. Hall.