

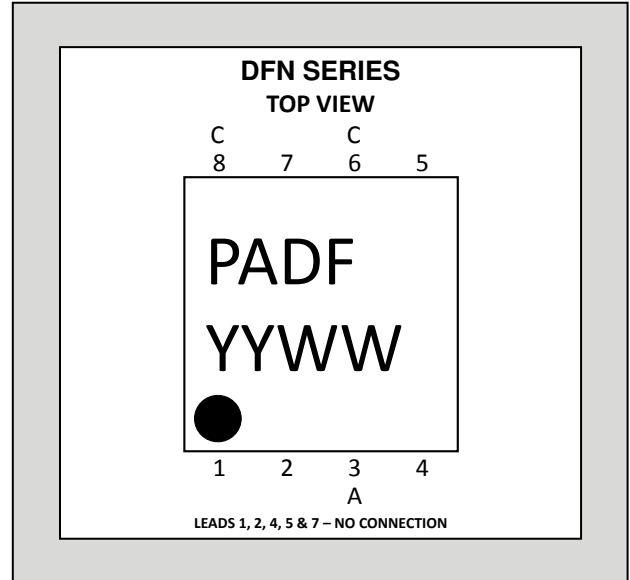
# LINEAR SYSTEMS

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 <sup>1</sup> @ 25 °C (unless otherwise stated)	
Maximum Temperatures	
Storage Temperature	-55 to +150 °C
Operating Junction Temperature	-55 to +150 °C
Maximum Power Dissipation <sup>2</sup>	
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

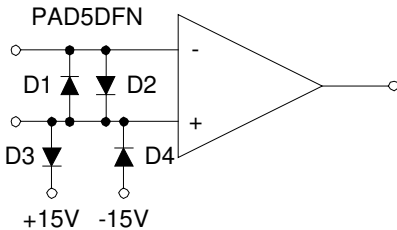
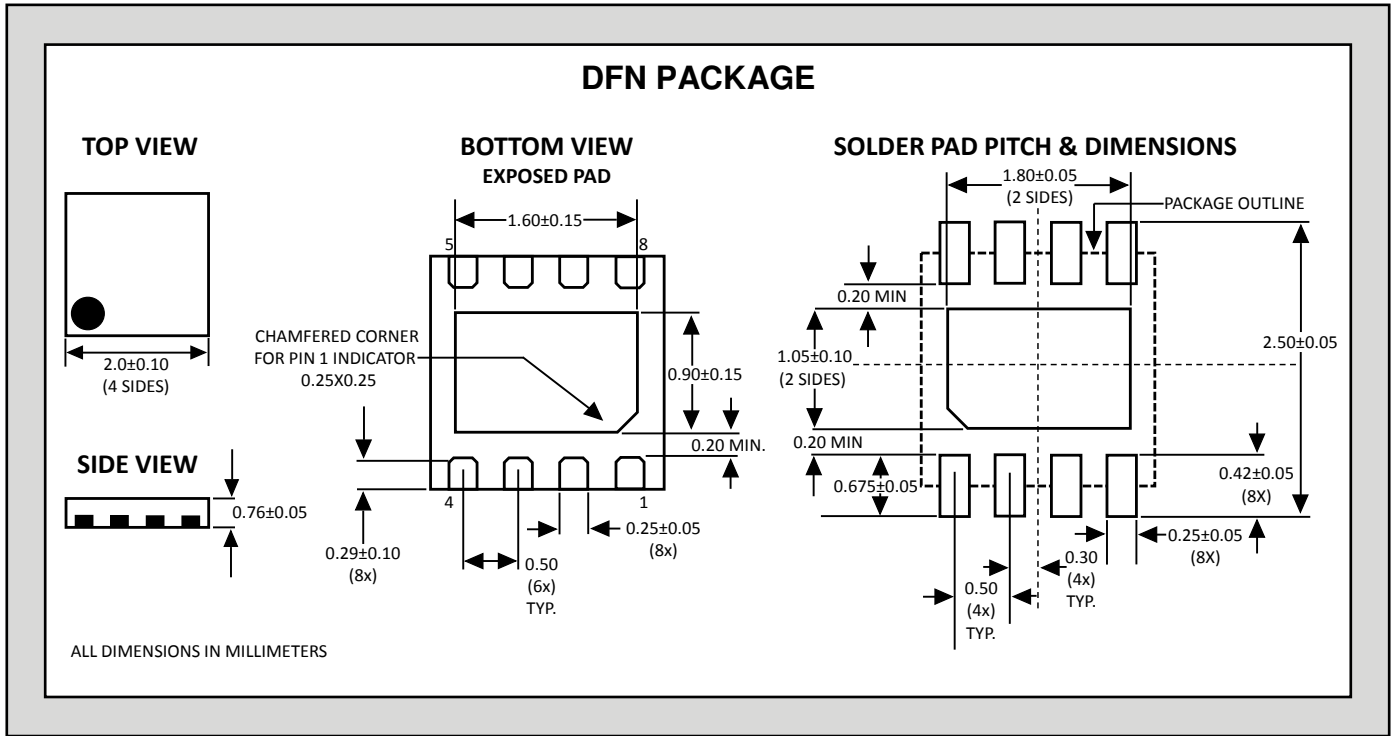
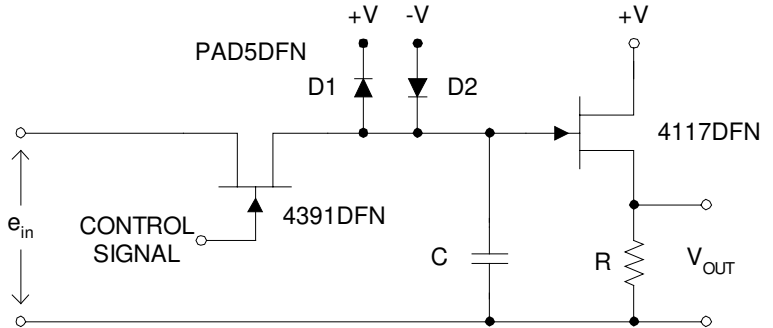


FIGURE 2



**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<sub>R</sub> values intermediate to those shown are available upon request.

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