

# low-leakage pico-amp diodes designed for . . .

- Clipping Circuits
- Diode Switching
- High Impedance Protection Circuits

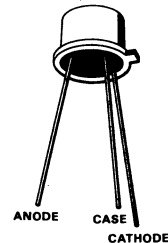
## BENEFITS

- Very High Off-Isolation  
1 pA Max (PAD1)

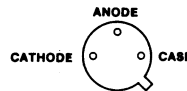
## ABSOLUTE MAXIMUM RATINGS (25°C)

Forward Current	50 mA
Total Device Dissipation	300 mW
Storage Temperature Range	-55°C to +125°C
Lead Temperature (1/16" from case for 10 seconds)	300°C

TO-18 (MODIFIED)  
See Section 6



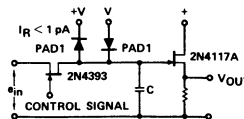
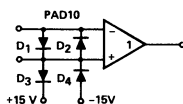
(Case lead for  
PAD1, 2, & 5 only)



Bottom View

## ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

Characteristic		Min	Typ	Max	Unit	Test Conditions
S T A T I C	$I_R$ Reverse Current			-1	pA	PAD1
				-2		2
				-5		5
				-10		PAD10
				-20		20
				-50		50
				-100		PAD100
8	$BV_R$ Breakdown Voltage (Reverse)	-45		-120	V	$I_R = -1 \mu A$
		-35				PAD1, 2, 5
9						PAD10, 20, 50, 100
10	$V_F$ Forward Voltage Drop		0.8	1.5		$I_F = 5 mA$
11 D Y N	$C_R$ Capacitance			0.8	pF	$V_R = -5 V, f = 1 MHz$
				2		PAD1, 2, 5
						PAD10, 20, 50, 100



## APPLICATION

Operational Amplifier Protection. Input Differential Voltage limited to 0.8 V (typ) by PADS D<sub>1</sub> and D<sub>2</sub> Common mode input voltage limited by PADS D<sub>3</sub> and D<sub>4</sub> to ±15 V.

Typical sample and hold circuit with clipping. PAD diodes reduce offset voltages fed capacitively from the FET switch gate.

PAD1 PAD2 PAD5 PAD10 PAD20 PAD50 PAD100  
PLASTIC EQUIVALENT JPADS SERIES

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