

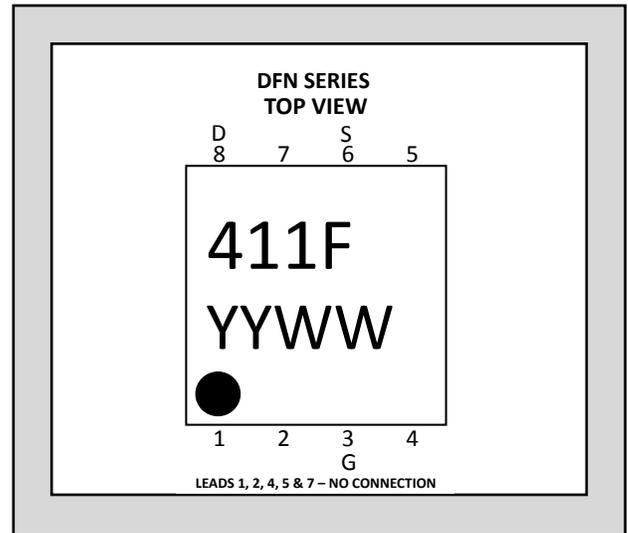
# LINEAR SYSTEMS

Improved Standard Products®

## 4117DFN SERIES

MINIATURE/NON MAGNETIC  
8-PIN DFN PACKAGE  
ULTRA-HIGH INPUT IMPEDANCE  
N-CHANNEL JFET AMPLIFIER

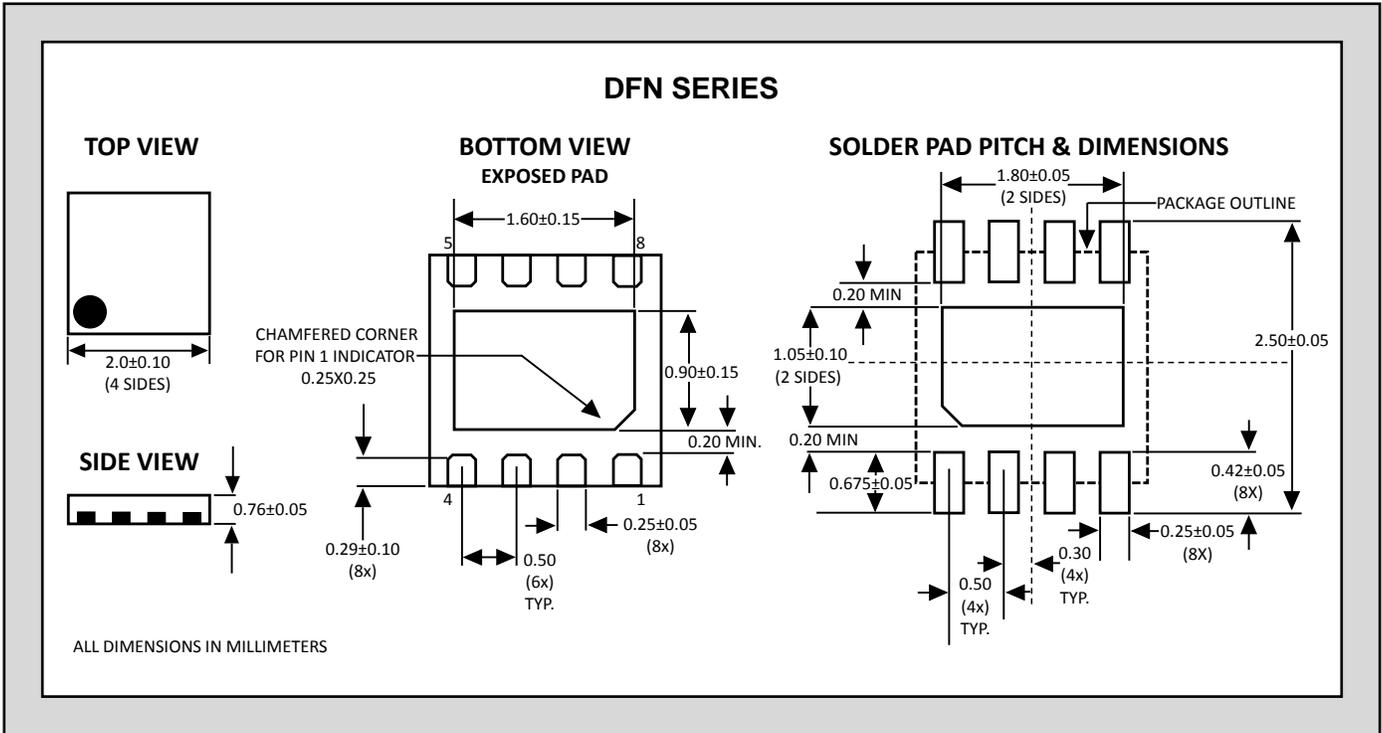
FEATURES	
LOW POWER	$I_{DSS} < 600 \mu A$ (4117DFN)
MINIMUM CIRCUIT LOADING	$I_{GSS} < 200 pA$ (4117DFN Series)
ABSOLUTE MAXIMUM RATINGS (NOTE 3)	
@ 25°C (unless otherwise noted)	
Gate-Source or Gate-Drain Voltage	-40V
Gate-Current	50mA
Total Device Dissipation (Derate 2.8mW/°C above 25°C)	300mW
Storage Temperature Range	-55°C to +150°C



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

SYMBOL	CHARACTERISTIC	4117DFN		4118DFN		4119DFN		UNITS	CONDITIONS
		MIN	MAX	MIN	MAX	MIN	MAX		
$BV_{GSS}$	Gate-Source Breakdown Voltage	-40	--	-40	--	-40	--	V	$I_G = -1 \mu A, V_{DS} = 0$
$V_{GS(off)}$	Gate-Source Cutoff Voltage	-0.6	-1.8	-1	-3	-2	-6		$V_{DS} = 10V, I_D = 1nA$
$I_{DSS}$	Saturation Drain Current (NOTE 2)	0.03	0.60	0.08	0.60	0.20	0.80	mA	$V_{DS} = 10V, V_{GS} = 0$
$I_{GSS}$	Gate Reverse Current	--	-200	--	-200	--	-200	pA	$V_{GS} = -10V, V_{DS} = 0V$
$g_{fs}$	Common-Source Forward Transconductance	70	450	80	650	100	700	μS	$V_{DS} = 10V, V_{GS} = 0$
$g_{os}$	Common-Source Output Conductance (NOTE 4)	--	3	--	5	--	10		
$C_{iss}$	Common-Source Input Capacitance (NOTE 4)	--	3	--	3	--	3	pF	f=1MHz
$C_{rss}$	Common-Source Reverse Transfer Capacitance (NOTE 4)	--	1.5	--	1.5	--	1.5		

**STANDARD PACKAGE DIMENSIONS:**



**NOTES:**

1. Due to symmetrical geometry, these units may be operated with source and drain leads interchanged.
2. This parameter is measured during a 2 ms interval 100 ms after power is applied. (Not a JEDEC condition.)
3. Absolute maximum ratings are limiting values above which serviceability may be impaired.
4. Not production tested, guaranteed by design.

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