

# DUAL MONOLITHIC MATCHED N-CHANNEL JFETS (PAIR)

SU2365 SU2366 SU2367  
SU2368 SU2369

## FEATURES

- High CMRR
- Low Input Current
- Low Leakage
- Low Noise
- Offset Differential Independent of Operating Current
- Low Offset Differential
- Low Offset Differential With Change in Temperature

## ABSOLUTE MAXIMUM RATINGS

@ 25°C (unless otherwise noted)

### Maximum Temperatures

Storage Temperature	-65°C to +150°C
Operating Junction Temperature	+150°C
Lead Temperature (Soldering, 10 sec. time limit)	+300°C

### Maximum Power Dissipation

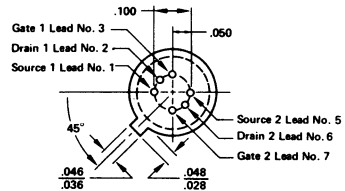
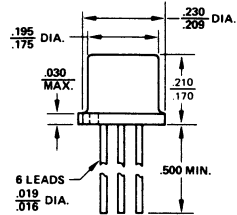
Device Dissipation @ 85°C Free Air Temperature	
One Side	250 mW
Both Sides	500 mW
Linear Derating	
One Side	2.56 mW/°C
Both Sides	4.3 mW/°C

### Maximum Voltages & Currents

V <sub>GS</sub> Gate to Source Voltage	-30 V
V <sub>GD</sub> Gate to Drain Voltage	-30 V
I <sub>G</sub> Gate Current	50 mA

## PACKAGE DIMENSIONS

TO-71



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

TEST CONDITIONS		SU2365		SU2366		SU2367		SU2368		SU2369		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
V(BR)GSS	V <sub>DS</sub> = 0, I <sub>G</sub> = -1.0 μA	-30		-30		-30		-30		-30		V
V <sub>GS</sub> (OFF)	V <sub>DS</sub> = 15 V, I <sub>D</sub> = 1.0 nA		-3.5		-3.5		-3.5		-3.5		-3.5	V
V <sub>GS</sub>	V <sub>DS</sub> = 15 V, I <sub>D</sub> = 200 μA		-2.5		-2.5		-2.5		-2.5		-2.5	V
I <sub>GSS</sub>	V <sub>DS</sub> = 0, V <sub>GS</sub> = -20 V		-100		-100		-100		-100		-100	pA
I <sub>G</sub>	V <sub>DS</sub> = 15 V, I <sub>D</sub> = 200 μA, T <sub>A</sub> = 25°C		-100		-100		-100		-100		-100	pA
	V <sub>DS</sub> = 15 V, I <sub>D</sub> = 200 μA, T <sub>A</sub> = 125°C		-50		-50		-50		-50		-50	nA
I <sub>DSS</sub>	V <sub>DS</sub> = 10 V, V <sub>GS</sub> = 0	0.5	10	0.5	10	0.5	10	0.5	10	0.5	10	mA
g <sub>fs</sub>	V <sub>DG</sub> = 15 V, I <sub>D</sub> = 200 μA, f = 1.0 KHz	1000	2000	1000	2000	1000	2000	1000	2000	1000	2000	μmhos
g <sub>f</sub>	V <sub>DS</sub> = 10 V, V <sub>GS</sub> = 0, f = 1.0 KHz	1500		1500		1500		1500		1500		μmhos
g <sub>os</sub>	V <sub>DG</sub> = 15 V, I <sub>D</sub> = 200 μA		2.0		2.0		2.0		2.0		2.0	μmhos
C <sub>iss</sub>	V <sub>DG</sub> = 15 V, I <sub>D</sub> = 200 μA, f = 0.14 MHz		16		16		16		16		16	pF
C <sub>rss</sub>	V <sub>DG</sub> = 15 V, I <sub>D</sub> = 200 μA, f = 0.14 MHz		4.0		4.0		4.0		4.0		4.0	pF
e <sub>n</sub>	V <sub>DS</sub> = 15 V, V <sub>GS</sub> = 0, f = 1.0 KHz		50		50		50		50		50	nV/√Hz
ΔV <sub>GSS</sub>	ΔV <sub>DG</sub> = 10-20 V, I <sub>D</sub> = 200 μA		0.5		0.5		0.6		0.75		2.0	mV
CMRR	ΔV <sub>DG</sub> = 10-20 V, I <sub>D</sub> = 200 μA	86		86		84		82		74		dB
I <sub>G1</sub> -I <sub>G2</sub>	V <sub>DG</sub> = 15 V, I <sub>D</sub> = 200 μA, T <sub>A</sub> = 100°C		5.0		5.0		5.0		5.0		5.0	nA
g <sub>fs1</sub> g <sub>fs2</sub>	V <sub>DG</sub> = 15 V, I <sub>D</sub> = 200 μA, f = 1.0 KHz	0.95	1.0	0.95	1.0	0.95	1.0	0.95	1.0	0.95	1.0	
V <sub>SG1</sub> -V <sub>GS2</sub>	V <sub>DG</sub> = 10 V, I <sub>D</sub> = 200 μA		5.0		10		10		15		20	mV
Δ V <sub>SG1</sub> -V <sub>GS2</sub>   ΔT <sub>A</sub>	V <sub>DG</sub> = 10 V, I <sub>D</sub> = 200 μA, T <sub>A</sub> = 0°C to 100°C		10		10		25		25		40	μV/°C
V(BR)G1G2	V <sub>DS</sub> = 0, V <sub>GS</sub> = 0, I <sub>D</sub> = ±1 μA	±30		±30		±30		±30		±30		V