

U232

N-Channel Dual Silicon Junction Field-Effect Transistor

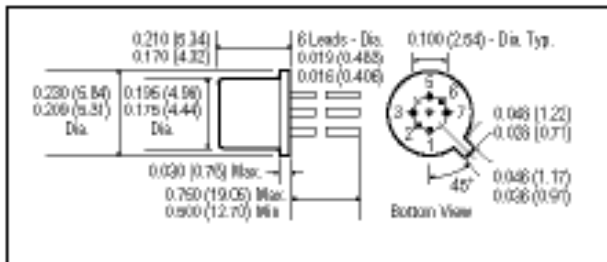
- **Differential Amplifier**
- **Low & Maximum Frequency Amplifier**

Absolute maximum ratings at T_A = 25°C
 Reverse Gate Source & Gate Drain Voltage -50V
 Continuous Forward Gate Current 50 mA
 Continuous Device Power Dissipation 300 mW
 Power Derating 1.7 mW/°C
 Storage Temperature Range -65°C to +150°C

At 25°C free air temperature		U232			Process NJ16	
		Min	Typ	Max	Unit	Test Conditions
Gate Source Breakdown Voltage	V _{(BR)GSS}	-50			V	I _G = -1 uA, V _{DS} = 0 V
Gate Reverse Current	I _{GSS}			-0.1	nA	V _{GS} = -10 V, V _{DS} = 0 V
Gate Source Cutoff Voltage	V _{GS(OFF)}	-0.5		-4.5	V	V _{DS} = 10 V, V _{GS} = 0 V
Drain Saturation Current (pulsed)	I _{DSS}	0.5		5	mA	V _{DS} = 10 V, V _{GS} = 0 V

Dynamic Electrical Characteristics							
Common-Source Forward Transconductance	g _{fs}	1		3	mS	V _{DS} = 10 V, V _{GS} = 0 V	f = 1 kHz
Common-Source Input Capacitance	C _{iss}			6	pF	V _{DS} = 10V, I _D = 5 mA	f = 1 MHz
Common-Source Reverse Transfer Capacitance	C _{rss}			2	pF	V _{DS} = 10 V, I _D = 5 mA	f = 1 MHz
Equivalent Short Circuit Input Noise Voltage	~e _N			80	nV/√Hz	V _{DS} = 10 V, I _D = 5 mA	f = 100 Hz

Matching Characteristics		Min	Max	Units	Test Conditions
Differential Gate-Source Voltage	(VGS1-VGS2)		10	mV	VDS = 10 V, ID = -10 mA
Differential Gate Source Voltage with Temperature	$\frac{\Delta VGS1 - VGS2 }{\Delta T}$		25	μV/°C	VDS = 10 V, ID = 30 μA



TO-71 Package
 Dimensions in inches (mm)
Pin Configuration
 1 Source, 2 Drain, 3 Gate,
 5 & 6 Drain, 6 Drain, 7 Gate

Surface Mount Version:
 SMPU232



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