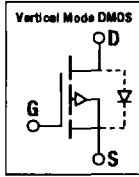


IFP3306

P-CHANNEL SILICON ENHANCEMENT MODE VERTICAL DMOS FET

- **FAST ANALOG SWITCH**
- **HIGH BREAKDOWN VOLTAGE**
- **LOW ON RESISTANCE SWITCHING**



Absolute maximum ratings at T_A = 25°C

		TO-39	SOT-23	Units
Drain Source Voltage	V _{DS}	-60	-60	V
Continuous Drain Current	I _D	-0.16	-0.09	A
Continuous Drain Current	I _D	-0.4		A
Drain Current (Pulsed)	I _{DM}	-1.6	-1.6	A
Gate Source Voltage	V _{GS}	±20	±20	V
Maximum Power Dissipation)	P _D	0.625	0.125	W
Maximum Power Dissipation	P _D	5		W
Operating/Storage Temperature Range	T _J , T _{stg}	-55 to +150		°C

At 25°C free air temperature.
Static Electrical Characteristics

IFP3306		Process PM21	
Min	Max	Unit	Test Conditions

Gate Source Breakdown Voltage	V _{(BR)DSS}	-60		V	I _D = -1 mA, V _{GS} = 0 V
Gate Leakage Voltage	I _{GSS}		20	nA	V _{GS} = ±20 V, V _{DS} = 0 V
Gate Source Threshold Voltage	V _{GS(th)}	-1.5	-3.5	V	I _D = -1 mA, V _{DS} = V _{GS}
Drain Saturation Current (Pulsed)	I _{DSS}		-0.5	µA	V _{DS} = Max. Rating, V _{GS} = 0 V
			-50	µA	V _{DS} = 0.8 x Max. Rating, V _{GS} = 0 V
On-state drain current(Pulsed)	I _{D(ON)}	-400		mA	V _{DS} = -18 V, V _{GS} = -10 V
Static Drain Source ON Resistance (Pulsed)	R _{DS(ON)}		14	Ω	I _D = -200 mA, V _{GS} = -10 V

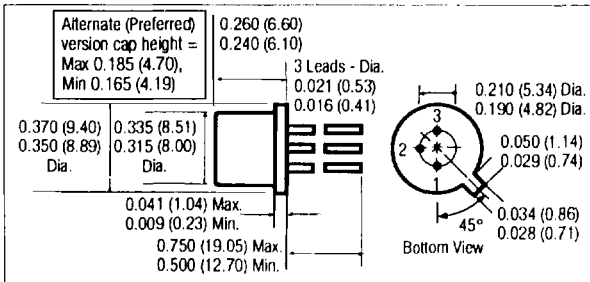
Dynamic Electrical Characteristics

Forward Transconductance (Pulsed)	g _{fs}	60		mS	V _{DS} = -18 V, I _D = -200 mA
Common Source Input Capacitance	C _{iSS}		50	pF	V _{DS} = -18 V, V _{GS} = 0 V
Common Source Output Capacitance	C _{oss}		25	pF	V _{DS} = -18 V, V _{GS} = 0 V
Common Source Reverse Transfer Capacitance	C _{rSS}		8	pF	V _{DS} = -18 V, V _{GS} = 0 V

Switching Characteristics Switching times measured with 50Ω source impedance and < 5 ns rise time on a pulse generator.

Turn ON Delay Time	t _{d(on)}		8	ns	V _{DD} = -18 V, I _D = -200 mA
Rise Time	t _r		8	ns	V _{DD} = -18 V, I _D = -200 mA
Turn OFF Delay Time	t _{d(off)}		8	ns	V _{DD} = -18 V, I _D = -200 mA
Fall Time	t _f		8	ns	V _{DD} = -18 V, I _D = -200 mA

Pulsed. Width = 300 µs. Duty cycle ≤ 2%.



TO-39 Package

Dimensions in Inches (mm)

Pin Configuration

1 Source, 2 Gate, 3 Drain

SOT-23 Package

See Section H



InterFET

(214) 487-1287

FAX (214) 276-3375