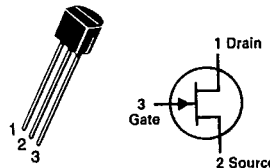


JF1033B, S, Y

CASE 29-04, STYLE 5
TO-92 (TO-226AA)



JFET
HIGH FREQUENCY AMPLIFIERS
N-CHANNEL DEPLETION

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	Vdc
Gate-Source Voltage	V_{GS}	25	Vdc
Drain Current	I_D	20	mA
Forward Gate Current	I_{GF}	10	mA
Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	310 2.82	mW mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Gate-Source Breakdown Voltage ($I_G = -10 \mu\text{A}$)	$V_{(BR)GSS}$	-25	—	Vdc
Drain-Source Breakdown Voltage ($I_D = 10 \mu\text{A}$)	$V_{(BR)DGO}$	20	—	Vdc
Gate Reverse Current ($V_{GS} = -10 \text{ V}, V_{DS} = 0$)	I_{GSS}	—	-100	nA
Gate Source Cutoff Voltage ($V_{DS} = 10 \text{ V}, I_D = 10 \mu\text{A}$)	$V_{GS(off)}$	-1.0	-8.0	Vdc
ON CHARACTERISTICS				
Zero-Gate-Voltage Drain Current ($V_{DS} = 10 \text{ V}, V_{GS} = 0$)	I_{DSS}			mA
	JF1033Y	2.5	6.0	
	JF1033B	5.0	12.0	
	JF1033S	10.0	20.0	
SMALL-SIGNAL CHARACTERISTICS				
Forward Transconductance ($V_{DS} = 10 \text{ V}, V_{GS} = 0, f = 1.0 \text{ kHz}$)	$Re(y_{fs})$	4.5	13.0	mmhos
FUNCTIONAL CHARACTERISTICS				
Noise Figure ($V_{DS} = 10 \text{ V}, V_{GS} = 0, f = 100 \text{ MHz}$)	NF	—	2.5	dB