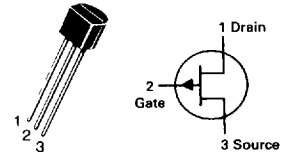


J174 thru J177★CASE 29-04, STYLE 30
TO-92 (TO-226AA)**JFET
CHOPPER TRANSISTORS**

P-CHANNEL — DEPLETION

★These are Motorola
designated preferred devices.

Refer to MPF970 for graphs.

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MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	30	Vdc
Drain-Gate Voltage	V_{DG}	30	Vdc
Gate-Source Voltage	V_{GS}	30	Vdc
Gate Current	I_G	50	mA
Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	350 2.8	mW mW/ $^\circ\text{C}$
Storage Temperature Range	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 ($I_G = 1.0 \mu\text{A}$)	$V_{(BR)GSS}$	30	—	Vdc
Gate Reverse Current ($V_{GS} = 20$ Volts)	I_{GSS}	—	1.0	nA
Gate Source Cutoff Voltage ($V_{DS} = -15$ V, $I_D = -10$ nA)	$V_{GS(off)}$			Vdc
J174		5.0	10	
J175		3.0	6.0	
J176		1.0	4.0	
J177		0.8	2.5	
ON CHARACTERISTICS				
Zero-Gate-Voltage Drain Current ($V_{DS} = -15$ V)	I_{DSS}^*			mA
J174		-2.0	-100	
J175		-7.0	-60	
J176		-2.0	-25	
J177		-1.5	-20	
Static Drain-Source On Resistance ($V_{DS} \leq -0.1$ Volt)	$r_{DS(on)}$			Ω
J174		—	85	
J175		—	125	
J176		—	250	
J177		—	300	

*Pulse Width = 300 μs , Duty Cycle $\leq 3.0\%$.

MOTOROLA SMALL-SIGNAL TRANSISTORS, FETs AND DIODES