

**J174  
J175  
J176  
J177**

**CASE 29-02, STYLE 7  
TO-92 (TO-226AA)**

**JFET  
CHOPPER TRANSISTOR**

**P-CHANNEL — DEPLETION**

Refer to MPF970 for graphs.

**MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
Drain-Source Voltage	V <sub>DS</sub>	30	Vdc
Drain-Gate Voltage	V <sub>DG</sub>	30	Vdc
Gate-Source Voltage	V <sub>GS</sub>	30	Vdc
Gate Current	I <sub>G</sub>	50	mA
Total Device Dissipation @ T <sub>A</sub> = 25°C Derate above 25°C	P <sub>D</sub>	350 2.8	mW mW/°C
Storage Temperature Range	T <sub>stg</sub>	-65 to +150	°C

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted.)**

Characteristic	Symbol	Min	Max	Unit
<b>OFF CHARACTERISTICS</b>				
Gate-Source Breakdown Voltage (I <sub>G</sub> = 1.0 μA)	V <sub>(BR)GSS</sub>	30	—	Vdc
Gate Reverse Current (V <sub>GS</sub> = 20 Volts)	I <sub>GSS</sub>	—	1.0	nA
Gate Source Cutoff Voltage (V <sub>DS</sub> = -15 V, I <sub>D</sub> = -10 nA)	V <sub>GS(off)</sub>	J174 5.0 J175 3.0 J176 1.0 J177 0.8	10 6.0 4.0 2.5	Vdc
<b>ON CHARACTERISTICS</b>				
Zero-Gate-Voltage Drain Current (V <sub>DS</sub> = -15 V)	I <sub>DSS</sub> *	J174 -2.0 J175 -7.0 J176 -2.0 J177 -1.5	-100 -60 -25 -20	mA
Static Drain-Source On Resistance (V <sub>DS</sub> ≤ -0.1 Volt)	r <sub>DS(on)</sub>	J174 — J175 — J176 — J177 —	85 125 250 300	Ω

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