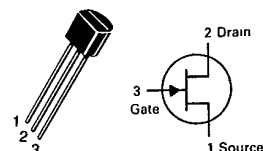


6367254 MOTOROLA SC (XSTRS/R F)

96D 82689 D

T-29-25

MPF256**CASE 29-04, STYLE 5
TO-92 (TO-226AA)****JFET
AMPLIFIER****N-CHANNEL — DEPLETION****MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	± 30	Vdc
Drain-Gate Voltage	V_{DG}	30	Vdc
Reverse Gate-Source Voltage	V_{GSR}	30	Vdc
Forward Gate Current	$I_{G(f)}$	10	mAdc
Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	350 2.73	mW mW/°C
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Gate-Source Breakdown Voltage ($I_G = 10 \mu\text{Adc}$, $V_{DS} = 0$)	$V_{(BR)GSS}$	25	—	—	Vdc
Gate Reverse Current ($V_{GS} = 15 \text{ Vdc}$, $V_{DS} = 0$)	I_{GSS}	—	—	5.0	nAdc
Gate Source Cutoff Voltage ($V_{DS} = 15 \text{ Vdc}$, $I_D = 200 \mu\text{Adc}$)	$V_{GS(off)}$	0.5	—	7.5	Vdc
ON CHARACTERISTICS					
Zero-Gate-Voltage Drain Current ($V_{DS} = 15 \text{ Vdc}$, $V_{GS} = 0$)	I_{DSS}^*	3.0 6.0 11	— — —	7.0 13 18	mAdc
SMALL-SIGNAL CHARACTERISTICS					
Forward Transfer Admittance ($V_{DS} = 15 \text{ Vdc}$, $V_{GS} = 0$, $f = 1.0 \text{ kHz}$)	$ y_{fs} $	6.0	—	—	mmhos
Input Capacitance ($V_{DS} = 15 \text{ Vdc}$, $I_D = 10 \text{ mAdc}$, $f = 1.0 \text{ MHz}$)	C_{iss}	—	3.0	—	pF
Reverse Transfer Capacitance ($V_{DS} = 15 \text{ Vdc}$, $I_D = 10 \text{ mAdc}$, $f = 1.0 \text{ MHz}$)	C_{rss}	—	1.2	—	pF
Output Capacitance ($V_{DS} = 15 \text{ Vdc}$, $I_D = 10 \text{ mAdc}$, $f = 1.0 \text{ kHz}$)	C_{oss}	—	2.0	—	pF
FUNCTIONAL CHARACTERISTICS					
Noise Figure ($V_{DS} = 15 \text{ Vdc}$, $R_S = 50 \text{ Ohms}$)	NF	— —	— —	2.0 4.0	dB
Common Source Power Gain ($V_{DS} = 15 \text{ Vdc}$, $R_S = 50 \text{ Ohms}$)	G_{ps}	20 12	— —	— —	dB

*To characterize these devices to narrower limits, the entire production lot is tested and divided into color-coded groups, with each color dot representing an I_{DSS} range.

When packaged for shipment, the colors are randomly selected and no specific color distribution is implied or guaranteed.

