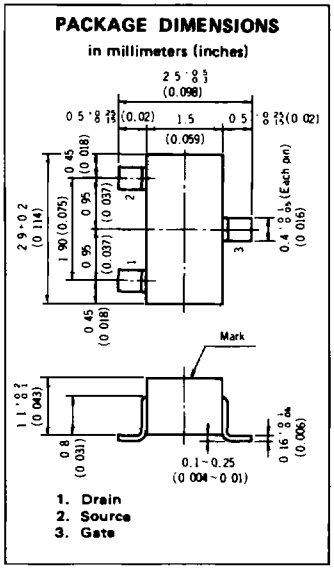
2SK160

AF & RF Amplifier
N-Channel Silicon Junction Field Effect Transistor



- General Purpose

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Maximum Voltages and Currents			
Gate to Drain Voltage	V_{GDO}	−30	V
Gate to Source Voltage	V_{GSO}	−30	V
Drain Current (DC)	I_D	20	mA
Gate Current (DC)	I_G	10	mA
Maximum Power Dissipation			
Total Power Dissipation at 25°C Ambient Temperature	P_T	150	mW
Maximum Temperatures			
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55 to +125	°C

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

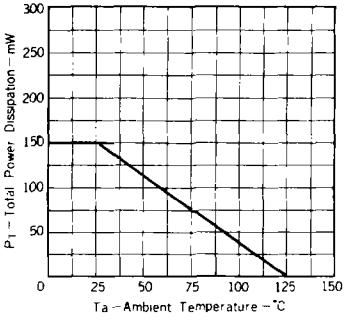
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Gate Cutoff Current	I_{GSS}			−10	nA	V_{GS}=−30V, V_{DS}=0
Zero-Gate Voltage Drain Current	I_{DSS}	0.5	2.5	12	mA	V_{DS}=5.0V, V_{GS}=0
Gate to Source Cutoff Voltage	$V_{GS(off)}$	−0.25	−1.1	−4.5	V	V_{DS}=5.0V, I_D=10μA
Forward Transfer Admittance	$\|Y_{fs}\|_1$	1.5	2.1		m℧	V_{DS}=5.0V, I_D=0.5mA, f=1.0kHz
Forward Transfer Admittance	$\|Y_{fs}\|_2$	1.5	4.1		m℧	V_{DS}=5.0V, V_{GS}=0, f=1.0kHz
Input Capacitance	C_{iss}		4.0		pF	V_{DS}=10V, V_{GS}=0, f=1.0MHz
Feedback Capacitance	C_{rss}		0.9		pF	V_{DS}=10V, V_{GS}=0, f=1.0MHz

I_{DSS} Classification

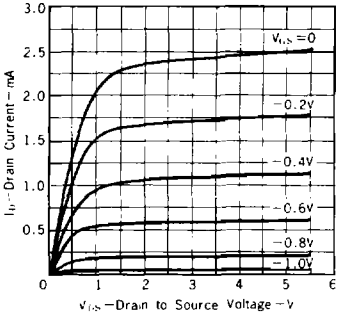
MARK	K4	K5	K6	K7
I_{DSS}(mA)	0.5 – 1.5	1.0 – 3.0	2.0 – 6.0	4.0 – 12

TYPICAL CHARACTERISTICS (Ta = 25°C unless otherwise noted)

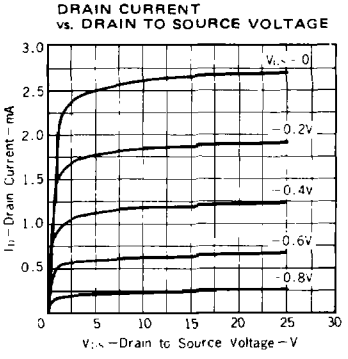
TOTAL POWER DISSIPATION
vs. AMBIENT TEMPERATURE



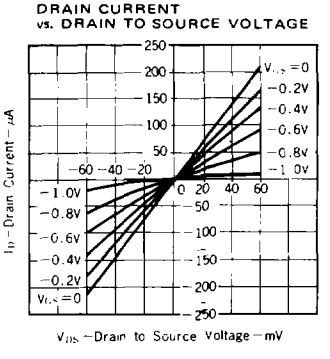
DRAIN CURRENT
vs. DRAIN TO SOURCE VOLTAGE



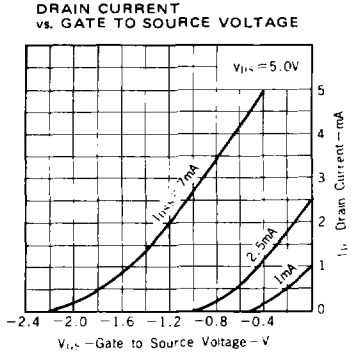
DRAIN CURRENT
vs. DRAIN TO SOURCE VOLTAGE



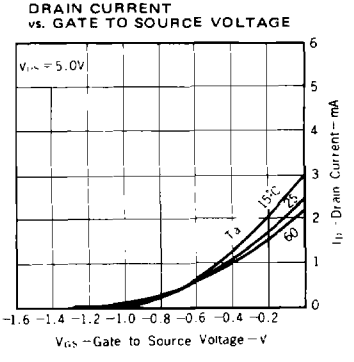
DRAIN CURRENT
vs. DRAIN TO SOURCE VOLTAGE



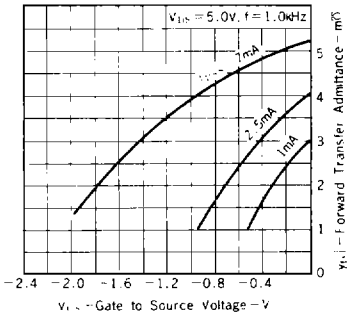
DRAIN CURRENT
vs. GATE TO SOURCE VOLTAGE



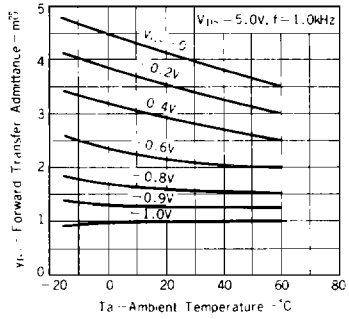
DRAIN CURRENT
vs. GATE TO SOURCE VOLTAGE



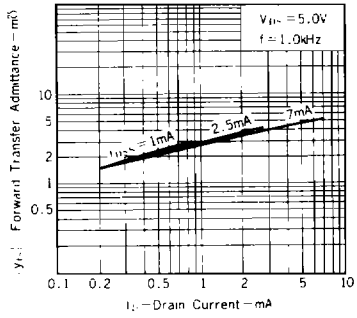
FORWARD TRANSFER ADMITTANCE vs. GATE TO SOURCE VOLTAGE



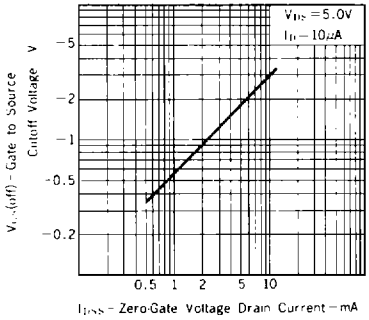
FORWARD TRANSFER ADMITTANCE vs. AMBIENT TEMPERATURE



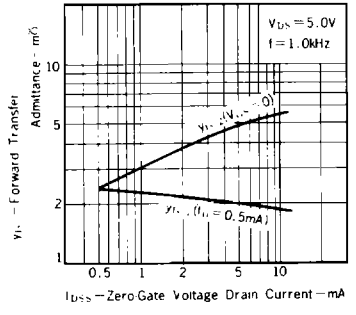
FORWARD TRANSFER ADMITTANCE vs. DRAIN CURRENT



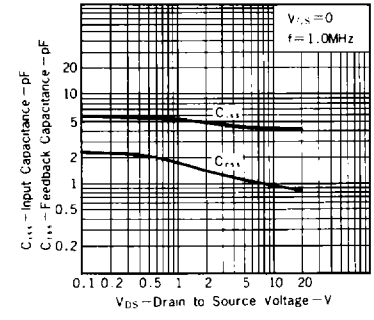
GATE TO SOURCE CUTOFF VOLTAGE vs. ZERO-GATE VOLTAGE DRAIN CURRENT



FORWARD TRANSFER ADMITTANCE vs. ZERO-GATE VOLTAGE DRAIN CURRENT



INPUT AND FEEDBACK CAPACITANCE vs. DRAIN TO SOURCE VOLTAGE



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