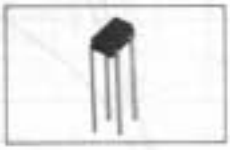
No.986

3SK108



Silicon N Channel Enhancement Dual Gate MOS FET

FOR HF AMPLIFIERS

Use:

- FM tuners and VHF tuners

Features:

- Enhancement type
- Plus voltage (8V→0V) is usable for AGC voltage.
- High power gain and small noise figure
- Large forward transfer admittance

Absolute Maximum Ratings at Ta=25°C

			unit
Drain-Source Voltage	V_{DS}	20	V
Gate 1-Source Voltage	V_{G1S}	±15	V
Gate 2-Source Voltage	V_{G2S}	±15	V
Drain Current	I_D	30	mA
Allowable Power Dissipation	P_D	250	mW
Channel Temperature	T_{ch}	125	°C
Storage Temperature	T_{stg}	-55 to +125	°C

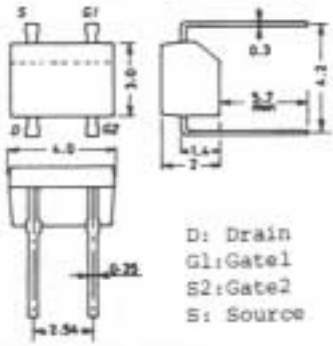
Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Drain-Source Voltage	V_{DS}	V_{G1S}=0V, V_{G2S}=0, I_D=10uA	20			V
G 1-S Breakdown Voltage	$V_{(BR)G1SS}$	I_{G1}=10uA, V_{DS}=0, V_{G2S}=0	±15			V
G 2-S Breakdown Voltage	$V_{(BR)G2SS}$	I_{G2}=10uA, V_{DS}=0, V_{G1S}=0	±15			V
G 1-S Cutoff Voltage	$V_{G1S(off)}$	V_{DS}=10V, V_{G2S}=10V, I_D=10uA	0.2	0.7	1.5	V
G 2-S Cutoff Voltage	$V_{G2S(off)}$	V_{DS}=10V, V_{G1S}=5V, I_D=10uA	0.2	0.7	1.5	V
Gate 1 Leak Current	I_{G1SS}	V_{G1S}=5V, V_{DS}=0			50	nA
Gate 2 Leak Current	I_{G2SS}	V_{G2S}=10V, V_{DS}=0			50	nA
Drain Current	I_{DSX}*	V_{DS}=10V, V_{G1S}=2V, V_{G2S}=10V	3*		21*	mA
Forward Transfer Admittance	$\|y_{fs}\|$	V_{DS}=10V, V_{G2S}=10V, I_D=10mA, f=1KHz	11	15		mS
Reverse Transfer Capacitance	C_{rss}	V_{DS}=10V, V_{G2S}=10V, V_{G1S}=0, f=1MHz		0.02	0.05	pF
Input Capacitance	C_{iss}	V_{DS}=10V, V_{G2S}=10V, V_{G1S}=0, f=1MHz		3		pF
Output Capacitance	C_{oss}	V_{DS}=10V, V_{G2S}=10V, V_{G2S}=0, f=1MHz		1.3		pF
Power Gain	PG	V_{DS}=10V, I_D=10mA, V_{G2S}=10V, f=100mHz	23	28		dB
Noise Figure	NF	V_{DS}=10V, I_D=10mA, V_{G2S}=10V, f=100MHz		1.8	2.5	dB

* The 3SK108 is classified as follows according to I_{DSX}.

3	Q	10	7	R	14	10	S	17	14	T	21

Case Outline 2031
(unit:mm)



These specifications are subject to change without notice.