

3SK181



2046

N-Channel Enhancement
MOS Silicon FET(Dual Gate)

High-Frequency General-Purpose Amp Applications

E2130A

Applications

- FM tuners and VHF tuners

Features

- Enhancement type
- Easy AGC (Cut off at $V_{G2S}=0V$)
- High power gain and low noise figure
- High forward transfer admittance

Absolute Maximum Ratings at $T_a=25^\circ C$

		unit
Drain to Source Voltage	V_{DS}	15 V
Gate 1 to Source Voltage	V_{G1S}	± 10 V
Gate 2 to Source Voltage	V_{G2S}	± 10 V
Drain Current	I_D	30 mA
Power Dissipation	P_D	200 mW
Channel Temperature	T_{ch}	125 $^\circ C$
Storage Temperature	T_{stg}	-55 to +125 $^\circ C$

Electrical Characteristics at $T_a=25^\circ C$

			min	typ	max	unit
Drain to Source Voltage	V_{DS}	$V_{G1S}=0V, V_{G2S}=0V$	15			V
		$I_{DS}=100\mu A$				
Gate 1 to Source Breakdown Voltage	$V_{(BR)G1SS}$	$I_{G1}=10\mu A, V_{DS}=0V$	± 10			V
		$V_{G2S}=0V$				
Gate 2 to Source Breakdown Voltage	$V_{(BR)G2SS}$	$I_{G2}=10\mu A, V_{DS}=0V$	± 10			V
		$V_{G1S}=0V$				
Gate 1 to Source Cutoff Voltage	$V_{G1S(off)}$	$V_{DS}=10V, V_{G2S}=6V$	0	0.7	1.3	V
		$I_D=100\mu A$				
Gate 2 to Source Cutoff Voltage	$V_{G2S(off)}$	$V_{DS}=10V, V_{G1S}=3V$	0.1	0.9	1.6	V
		$I_D=100\mu A$				
Gate 1 Cutoff Current	I_{G1SS}	$V_{G1S}=4V, V_{G2S}=V_{DS}=0V$			50	nA
Gate 2 Cutoff Current	I_{G2SS}	$V_{G2S}=8V, V_{G1S}=V_{DS}=0V$			50	nA
Drain Current	I_{DSX}	$V_{DS}=10V, V_{G1S}=1.5V$	2.5*		24*	mA
		$V_{G2S}=6V$				

Continued on next page.

*: The 3SK181 is classified by I_{DSX} as follows (unit: mA):

2.5	4	6.0	5.0	5	12.0	10.0	6	24.0
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(Note) Marking: EJ
 I_{DSX} rank : 4,5,6

Case Outline 2046 (unit:mm)

