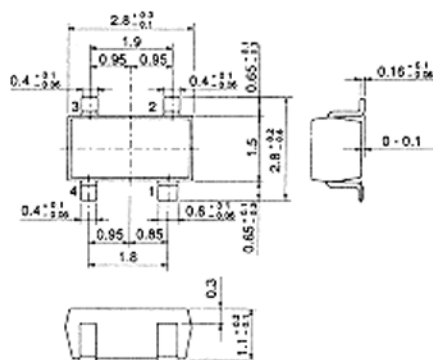


## 3SK136

SILICON N-CHANNEL DUAL GATE MOS FET

VHF TV TUNER RF AMPLIFIER

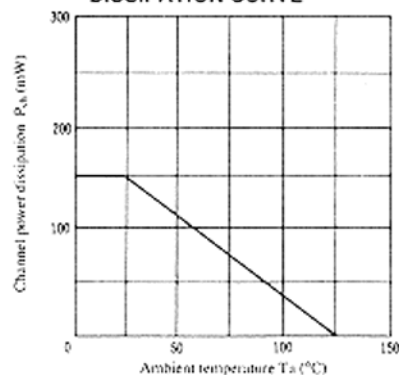


(MPAK-4)

### ■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	3SK136	Unit
Drain to source voltage	$V_{DS}$	20	V
Gate 1 to source voltage	$V_{G1S}$	±8	V
Gate 2 to source voltage	$V_{G2S}$	±8	V
Drain current	$I_D$	35	mA
Channel power dissipation	$P_{ch}$	150	mW
Channel temperature	$T_{ch}$	125	°C
Storage temperature	$T_{stg}$	-55 to +125	°C

### MAXIMUM CHANNEL POWER DISSIPATION CURVE



### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Gate 1 to source breakdown voltage	$V_{IBR/G1S}$	$I_{G1} = \pm 10 \mu A, V_{DS} = V_{G2S} = 0$	±8	—	±20	V
Gate 2 to source breakdown voltage	$V_{IBR/G2S}$	$I_{G2} = \pm 10 \mu A, V_{DS} = V_{G1S} = 0$	±8	—	±20	V
Gate 1 cutoff current	$I_{G1SS}$	$V_{G1S} = \pm 8 V, V_{DS} = V_{G2S} = 0$	—	—	±100	nA
Gate 2 cutoff current	$I_{G2SS}$	$V_{G2S} = \pm 8 V, V_{DS} = V_{G1S} = 0$	—	—	±100	nA
Gate 1 to source cutoff voltage	$V_{G1S(off)}$	$V_{DS} = 15 V, V_{G2S} = 4 V, I_D = 100 \mu A$	-0.3	—	-3.0	V
Gate 2 to source cutoff voltage	$V_{G2S(off)}$	$V_{DS} = 15 V, V_{G1S} = 0, I_D = 100 \mu A$	-0.4	—	-2.0	V
Drain current	$I_{DSS}$	$V_{DS} = 15 V, V_{G2S} = 4 V, V_{G1S} = 0$	5.0	—	25	mA
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 15 V, V_{G2S} = 4 V, I_D = 10 mA, f = 1 kHz$	8.0	—	—	mS
Input capacitance	$C_{iss}$	$V_{DS} = 15 V, V_{G2S} = 4 V, I_D = 10 mA, f = 1 MHz$	—	5.0	—	pF
Output capacitance	$C_{oss}$		—	2.0	—	pF
Reverse transfer capacitance	$C_{rss}$		—	0.03	—	pF
Power gain	PG	$V_{DS} = 15 V, V_{G2S} = 4 V, I_D = 10 mA, f = 200 MHz$	17	—	—	dB
Noise figure	NF		—	—	3.3	dB

\* Marking is HV-L.

■ See characteristic curves of 3SK81.