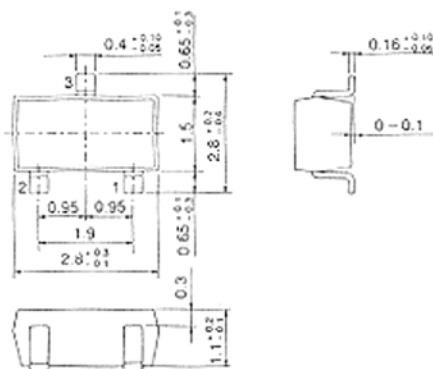


2SK431

SILICON N-CHANNEL JUNCTION FET

LOW FREQUENCY LOW NOISE AMPLIFIER



1. Drain
 2. Source
 3. Gate
- (Dimensions in mm)

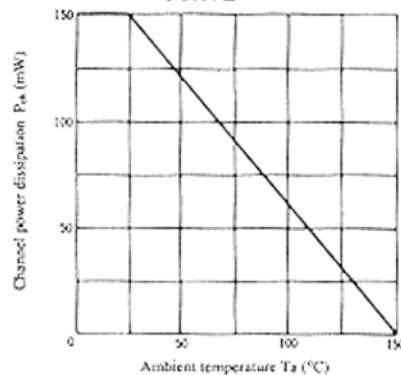
(MPAK)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SK431	Unit
Gate to source voltage	V_{GS}	-40	V
Drain to source voltage	V_{DS}^*	40	V
Drain current	I_D	30	mA
Gate current	I_G	10	mA
Channel power dissipation	P_{ch}	150	mW
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

* $V_{GS} = -2V$

MAXIMUM CHANNEL DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Gate to source breakdown voltage	$V_{(BR)GS}$	$I_G = -100\mu A, V_{DS} = 0$	-40	—	—	V
Gate cutoff current	I_{GSS}	$V_{GS} = -30V, V_{DS} = 0$	—	—	-10	nA
Drain current	I_{DSS}^*	$V_{DS} = 10V, V_{GS} = 0, \text{Pulse Test}$	2.5	—	20	mA
Gate to source cutoff voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 10\mu A$	-0.13	—	-1.5	V
Forward transfer admittance	$ y_{fs} $	$V_{DS} = 10V, I_D = 3mA, f = 1kHz$	18	21	—	mS
Input capacitance	C_{iss}	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$	—	28	—	pF
Reverse transfer capacitance	C_{rss}	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$	—	5.6	—	pF
Noise voltage referred to input	e_n	$V_{DS} = 10V, I_D = 3mA, R_g = 0, f = 1MHz$	—	1.0	—	nV \sqrt{Hz}

* The 2SK431 is grouped by I_{DSS} as follows.

Grade	C	D	E	F
Mark	IHC	IHD	IHE	IHF
I_{DSS}	2.5 to 5.0	4 to 8	6 to 12	10 to 20

■ See characteristic curves of 2SK187.