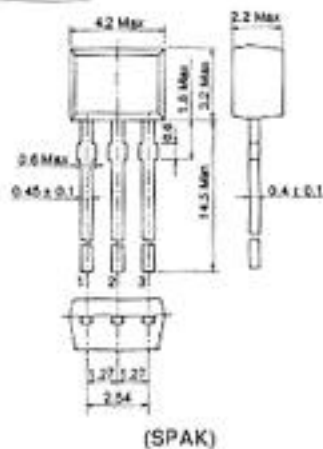


2SK439

SILICON N-CHANNEL MOS FET
VHF AMPLIFIER

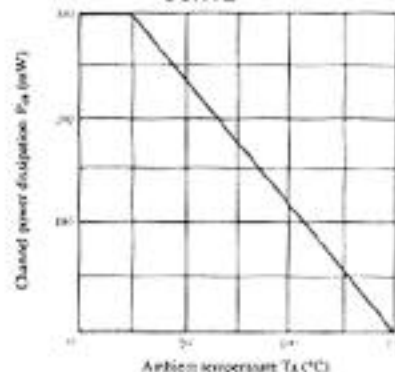


1. Gate
 2. Source
 3. Drain
- (Dimensions in mm)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SK439	Unit
Drain to source voltage	V_{DS}	20	V
Gate to source voltage	V_{GS}	± 5	V
Drain current	I_D	30	mA
Gate current	I_G	± 1	mA
Channel power dissipation	P_{ch}	300	mW
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

■ MAXIMUM CHANNEL DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Drain to source breakdown voltage	$V_{DS(max)}$	$I_D = 100\mu A, V_{GS} = -4V$	20	—	—	V
Gate cutoff current	I_{GSS}	$V_{GS} = \pm 5V, V_{DS} = 0$	—	—	± 20	nA
Drain current	I_{DSS}^*	$V_{DS} = 10V, V_{GS} = 0$	4	—	12	mA
Gate to source cutoff voltage	$V_{GS(cut)}$	$V_{DS} = 10V, I_D = 10\mu A$	0	—	-2.0	V
Forward transfer admittance	$ y_{fs} $	$V_{DS} = 10V, V_{GS} = 0, f = 1kHz$	8	14	—	mS
Input capacitance	C_{iss}	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$	—	2.5	—	pF
Reverse transfer capacitance	C_{rss}		—	0.03	—	pF
Output capacitance	C_{oss}	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$	—	1.8	—	pF
Power gain	PG	$V_{GS} = 10V, V_{DS} = 0, f = 100MHz$	—	30	—	dB
Noise figure	NF		—	2.0	—	dB

* The 2SK439 is grouped by lot as follows

D	E	F
4 to 8	6 to 10	8 to 12

■ See characteristic curves of 2SK359.