
2SK1070

Silicon N-Channel Junction FET

HITACHI

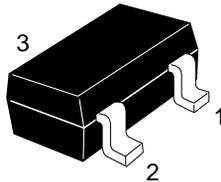
ADE-208-1175 (Z)
1st. Edition
Mar. 2001

Application

Low frequency / High frequency amplifier

Outline

MPAK



1. Drain
2. Source
3. Gate

2SK1070

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Gate to drain voltage	V_{GDO}	-22	V
Gate to source voltage	V_{GSO}	-22	V
Drain current	I_D	50	mA
Gate current	I_G	10	mA
Channel power dissipation	Pch	150	mW
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-55 to +150	°C

Electrical Characteristics (Ta = 25°C)

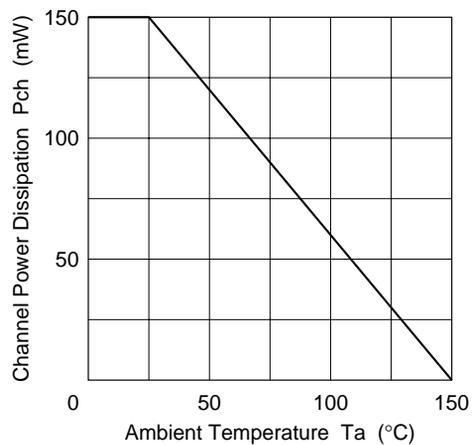
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Gate cutoff current	I_{GSS}	—	—	-10	nA	$V_{GS} = -15\text{ V}$, $V_{DS} = 0$
Gate to source breakdown voltage	$V_{(BR)GSS}$	-22	—	—	V	$I_G = -10\ \mu\text{A}$, $V_{DS} = 0$
Drain current	I_{DSS}^{*1}	6	—	40	mA	$V_{DS} = 5\text{ V}$, $V_{GS} = 0$, Pulse test
Gate to source cutoff voltage	$V_{GS(off)}$	0	—	-2.5	V	$V_{DS} = 5\text{ V}$, $I_D = 10\ \mu\text{A}$
Forward transfer admittance	$ y_{fs} $	20	30	—	mS	$V_{DS} = 5\text{ V}$, $V_{GS} = 0$, $f = 1\text{ kHz}$
Input capacitance	Ciss	—	9	—	pF	$V_{DS} = 5\text{ V}$, $V_{GS} = 0$, $f = 1\text{ MHz}$

Note: 1. The 2SK1070 is grouped by I_{DSS} as follows.

Grade	B	C	D	E
Mark	PIB	PIC	PID	PIE
I_{DSS}	6 to 14	12 to 22	18 to 30	27 to 40

See characteristic curves of 2SK435.

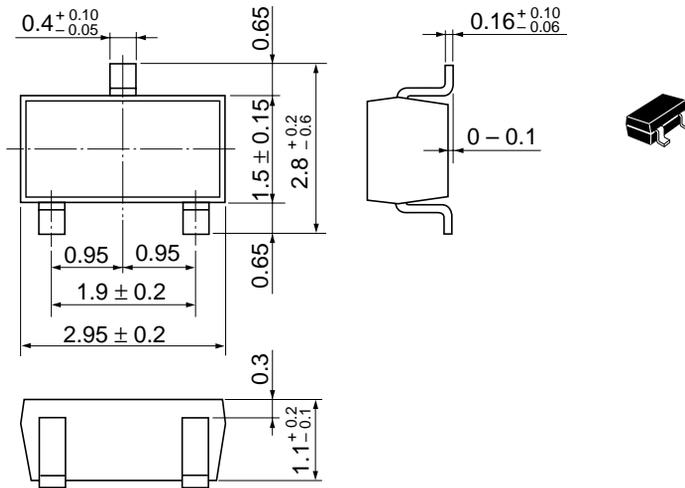
Maximum Channel Dissipation Curve



Package Dimensions

As of January, 2001

Unit: mm



Hitachi Code	MPAK
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.011 g

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