

To all our customers

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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

Cautions

Keep safety first in your circuit designs!

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Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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2SK1070

Silicon N-Channel Junction FET

RENESAS

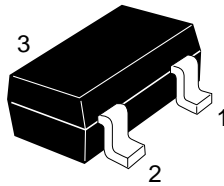
ADE-208-1175 (Z)
1st. Edition
Mar. 2001

Application

Low frequency / High frequency amplifier

Outline

MPAK



1. Drain
2. Source
3. Gate

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)

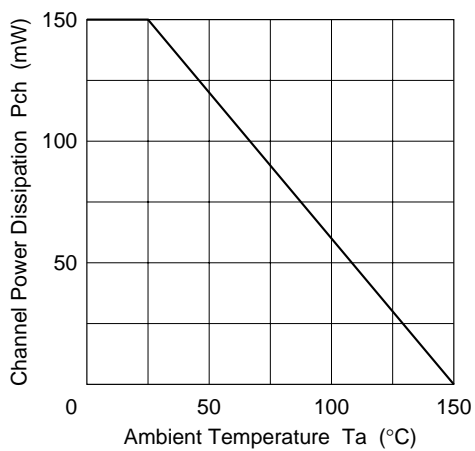
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Gate cutoff current	I_{GSS}	—	—	-10	nA	$V_{GS} = -15\text{ V}, V_{DS} = 0$
Gate to source breakdown voltage	$V_{(BR)GSS}$	-22	—	—	V	$I_G = -10\ \mu\text{A}, V_{DS} = 0$
Drain current	I_{DSS}^{*1}	6	—	40	mA	$V_{DS} = 5\text{ V}, V_{GS} = 0$, Pulse test
Gate 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	C_{iss}	—	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.

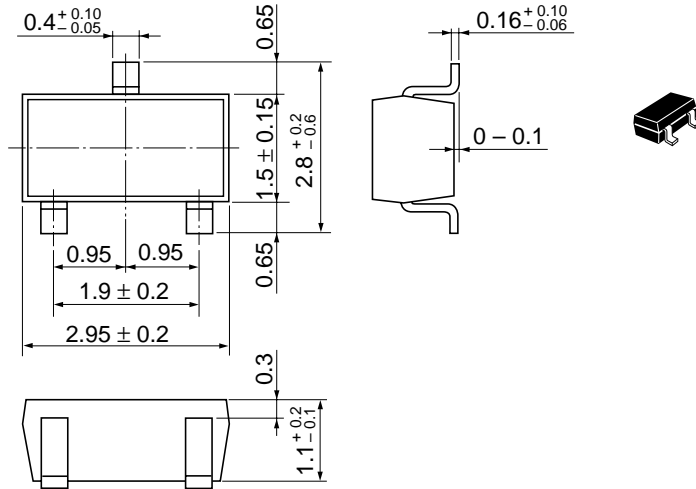
Maximum Channel Dissipation Curve



Package Dimensions

As of January, 2001

Unit: mm



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

Cautions

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