Ordering number:EN2749

N-Channel Junction Silicon FET

2SK1069

Low-Frequency General-Purpose Amplifier Applications

Applications

- Low-frequency general-purpose amplifiers.
- Ideal for use in variable resistors, analog switches, low-frequency amplifiers, and constant-current circuits.

Features

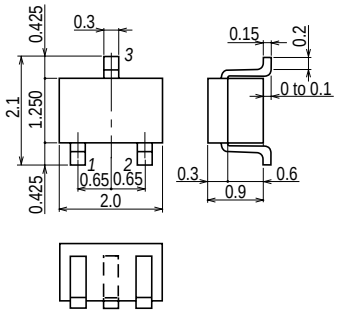
- Adoption of FBET process.
- Ultrasmall-sized package permitting 2SK1069-applied sets to be made smaller and slimmer.

Package Dimensions

unit:mm

2058

[2SK1069]



1 : Source
2 : Drain
3 : Gate
SANYO : MCP

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSX}		40	V
Gate-to-Drain Voltage	V_{GDS}		–40	V
Gate Current	I_G		10	mA
Drain Current	I_D		20	mA
Allowable Power Dissipation	P_D		150	mW
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	I_G=–10μA, V_{DS}=0	–40			V
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=–20V, V_{DS}=0			–1.0	nA
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=10V, V_{GS}=0	1.2*		12.0*	mA
Cutoff Voltage	$V_{GS(off)}$	V_{DS}=10V, I_D=1μA	–0.3	–0.9	–2.0	V
Forward Transfer Admittance	| yfs |	V_{DS}=10V, V_{GS}=0, f=1kHz	4.5	9.0		mS

* : The 2SK1069 is classified by I_{DSS} as follows (unit : mA) :

1.2	3	3.0	2.5	4	6.0	5.0	5	12.0

Continued on next page.

(Note) Marking : FJ
I_{DSS} rank : 3, 4, 5
• For CP package version, use the 2SK771.

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Parameter	Symbol	Conditions	Ratings			Unit
Input Capacitance	Ciss	V_{DS}=10V, V_{GS}=0, f=1MHz		9.0		pF
Reverse Transfer Capacitance	Crss	V_{DS}=10V, V_{GS}=0, f=1MHz		2.1		pF
Noise Figure	NF	V_{DS}=10V, Rg=1kΩ, I_D=1mA, f=1kHz		1.5		dB