

N-Channel Junction Silicon FET Low-Frequency General-Purpose Amp, Differential Amp Applications

### Features

- · Adoption of FBET process.
- Composite type with 2 transistors contained in the CP package currently in use, improving the mounting efficiency greatly.
- The FC11 is formed with two chips, being equivalent to the 2SK771, placed in one package.
- Excellent in the thermal equilibrium and pair capability and suitable for use in differential amp.
- $\cdot$  Common source.

# **Electrical Connection**



# **Package Dimensions**

unit:mm



**FC11** 

# **Specifications**

#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V <sub>DSX</sub>		40	V
Gate-to-Drain Voltage	V <sub>GDS</sub>		-40	V
Gate Current	IG		10	mA
Drain Current	۱ <sub>D</sub>		10	mA
Allowable Power Dissipation	PD	1 unit	200	mW
Total Dissipation	PT		300	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
Farameter			min	typ	max	Unit
Gate-to-Drain Breakdown Voltage	V(BR)GDS	I <sub>G</sub> =10μA, V <sub>DS</sub> =0	-40			V
Gate Cutoff Current	IGSS	V <sub>GS</sub> =-20V, V <sub>DS</sub> =0V			-1.0	nA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =1µA	-0.3	-0.9	-1.8	V
Gate-to-Source Voltage Drop	ΔVGS	$ V_{GS} $ large – $V_{GS}$ small  , $V_{DS}$ =10V, $I_{D}$ =1mA			30	mV
Drain Current	IDSS	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V	1.2*		6.0*	mA
Drain Current Ratio		V <sub>DS</sub> =10V, I <sub>DSS</sub> small/I <sub>DSS</sub> large	0.9			
Forward Transfer Admittance	Y <sub>fs</sub>	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=1kHz	4.5	9.0		mS
Forward Transfer Admittance Ratio		V <sub>DS</sub> =10V,  Y <sub>fs</sub>  small /  Y <sub>fs</sub>  large	0.9			
Input Capacitacnce	Ciss	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=1MHz		9.0		pF
Reverse Transfer Capacitance	Crss	V <sub>DS</sub> =10V, V <sub>GS</sub> =0V, f=1MHz		2.1		pF
Noise Figure	NF	$V_{DS}$ =10V, R <sub>g</sub> =1k $\Omega$ , I <sub>D</sub> =1mA, f=1kHz		1.5		dB

Note\*: The FC11 is classified by IDSS as follows (unit:mA) Marking: 11

1.2 D 3.0 2.5 E 6.0

I<sub>DSS</sub> rank:D,E

The Specifications shown above are for each individual transistor.

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#### No.3154-2/3

FC11



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