# 2SK0198 (2SK198)

# Silicon N-Channel Junction FET

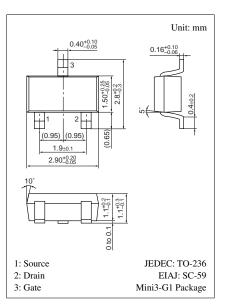
For low-frequency amplification

#### Features

- High mutual conductance g<sub>m</sub>
- Low noise type
- Mini-type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing.

Absolute Maximum Hatings $(T_a = 25 \text{ C})$							
Parameter	Symbol	Ratings	Unit				
Drain to Source voltage	V <sub>DSX</sub>	30	V				
Gate to Drain voltage	V <sub>GDO</sub>	-30	V				
Drain current	ID	20	mA				
Gate current	I <sub>G</sub>	10	mA				
Allowable power dissipation	P <sub>D</sub>	150	mW				
Channel temperature	T <sub>ch</sub>	150	°C				
Storage temperature	T <sub>stg</sub>	-55 to +150	°C				

## Absolute Maximum Ratings ( $T_a = 25^{\circ}C$ )



## Marking Symbol (Example): 10

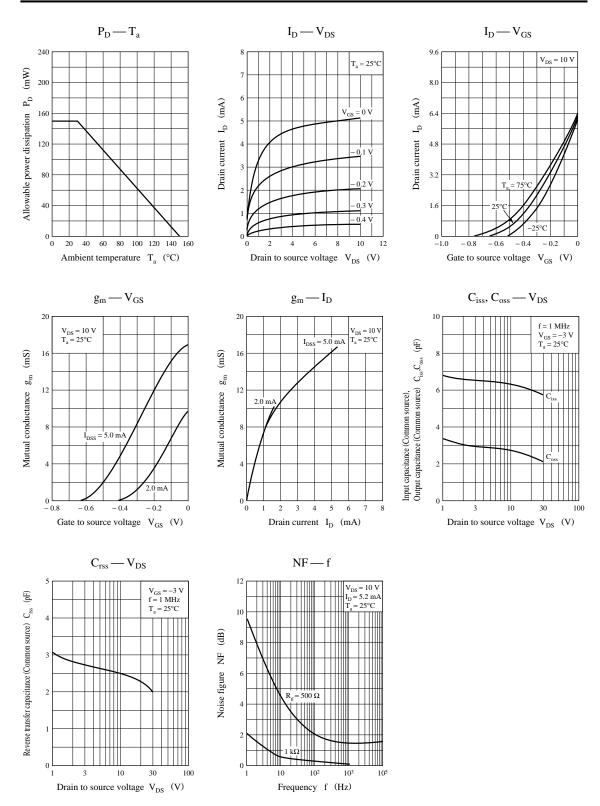
#### Electrical Characteristics ( $T_a = 25^{\circ}C$ )

Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	I <sub>DSS</sub> *	$V_{DS} = 10 \text{ V}, V_{GS} = 0$	0.5		12	mA
Gate to Source leakage current	I <sub>GSS</sub>	$V_{GS} = -30 V, V_{DS} = 0$			-100	nA
Gate to Source cut-off voltage	V <sub>GSC</sub>	$V_{DS} = 10 \text{ V}, I_D = 10 \ \mu A$	- 0.1		-1.5	V
Mutual conductance	gm	$V_{DS} = 10 \text{ V}, I_D = 0.5 \text{ mA}, f = 1 \text{ kHz}$	4			mS
		$V_{DS} = 10 V, V_{GS} = 0, f = 1 kHz$		13		
Input capacitance (Common Source)	C <sub>iss</sub>	$V_{-10}V_{-10}V_{-0}f_{-1}MH_{-1}$		14		pF
Reverse transfer capacitance (Common Source)	C <sub>rss</sub>	$V_{DS} = 10 V, V_{GS} = 0, f = 1 MHz$		3.5		pF
Noise figure NV	NN	$V_{DS} = 30 \text{ V}, I_D = 1 \text{ mA}, G_V = 80 \text{ dB}$		60		N.
	IN V	$R_g = 100 \text{ k}\Omega$ , Function = FLAT				mV

#### \* I<sub>DSS</sub> rank classification

Runk	Р	Q	R
I <sub>DSS</sub> (mA)	0.5 to 3	2 to 6	4 to 12
Marking Symbol	1OP	10Q	1OR

Note) The part number in the parenthesis shows conventional part number.



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