

# 2SK1842

## Silicon N-channel junction FET

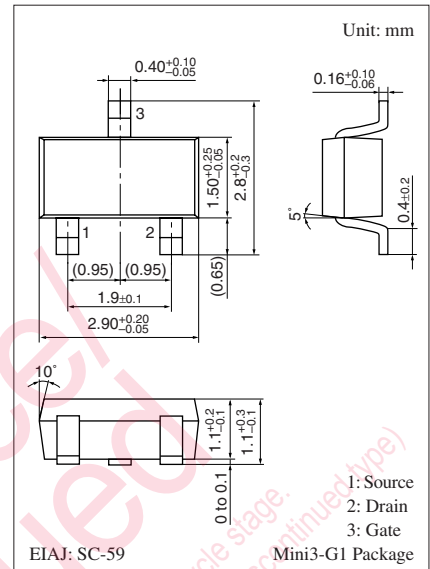
For impedance conversion in low frequency  
For infrared sensor

### ■ Features

- Low gate-source cutoff current  $I_{GSS}$
- Low capacitance (Common source)  $C_{iss}$ ,  $C_{oss}$ ,  $C_{rss}$
- Mini-type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing.

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Gate-drain voltage (Source open)	$V_{GDO}$	-40	V
Gate-source voltage (Drain open)	$V_{GSO}$	-40	V
Drain current	$I_D$	1	mA
Gate current	$I_G$	10	mA
Power dissipation	$P_D$	150	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$



Marking Symbol: EB

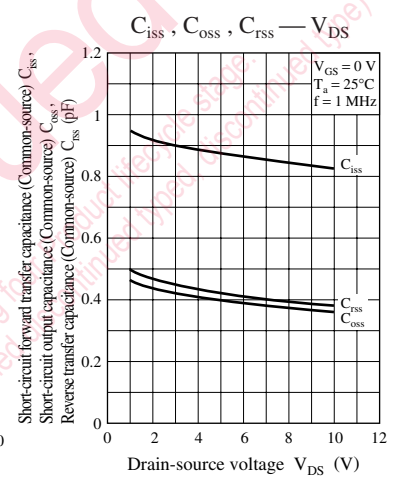
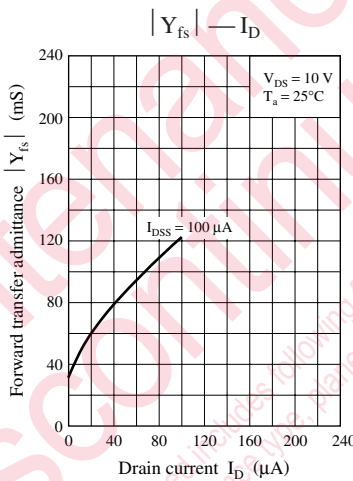
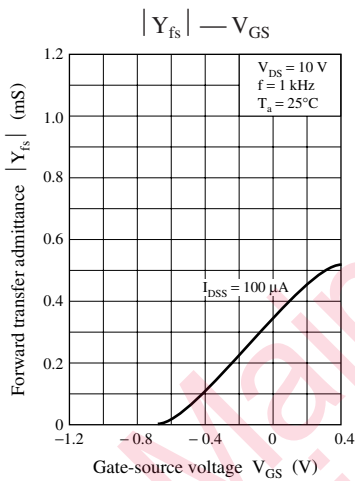
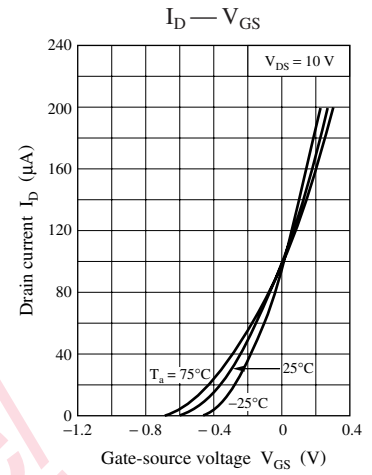
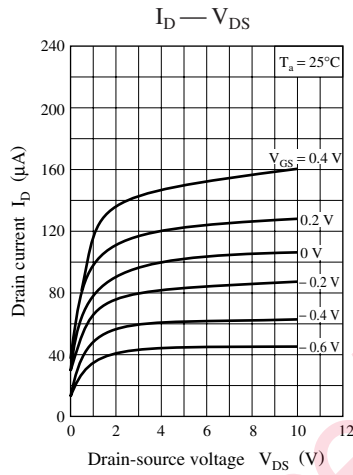
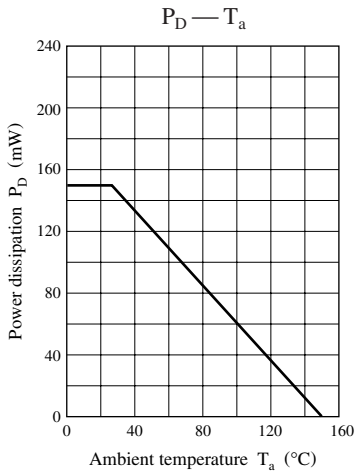
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Gate-drain surrender voltage	$V_{GDS}$	$I_G = -10 \mu\text{A}$ , $V_{DS} = 0$	-40			V
Drain-source cutoff current *	$I_{DSS}$	$V_{DS} = 10 \text{ V}$ , $V_{GS} = 0$	30		200	$\mu\text{A}$
Gate-source cutoff current	$I_{GSS}$	$V_{GS} = -20 \text{ V}$ , $V_{DS} = 0$			-0.5	$\mu\text{A}$
Gate-source cutoff voltage	$V_{GSC}$	$V_{DS} = 10 \text{ V}$ , $I_D = 1 \mu\text{A}$		-1.3	-3.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10 \text{ V}$ , $V_{GS} = 0$ , $f = 1 \text{ kHz}$	0.05			mS
Short-circuit forward transfer capacitance (Common source)	$C_{iss}$	$V_{DS} = 10 \text{ V}$ , $V_{GS} = 0$ , $f = 1 \text{ MHz}$		1.0		pF
Short-circuit output capacitance (Common source)	$C_{oss}$			0.4		pF
Reverse transfer capacitance (Common source)	$C_{rss}$			0.4		pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*: Rank classification

Rank	P	Q	R	S
$I_{DSS}$ ( $\mu\text{A}$ )	30 to 75	50 to 100	70 to 130	100 to 200



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