

# XP1D874

## N-channel junction FET

For low-frequency impedance conversion

For infrared sensor

### ■ Features

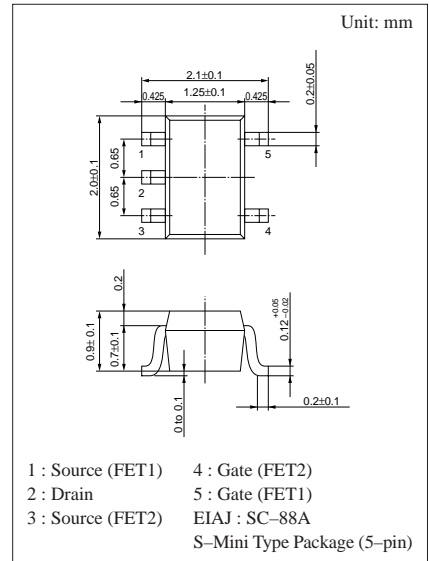
- Two elements incorporated into one package.  
(Drain-coupled FETs)
- Reduction of the mounting area and assembly cost by one half.

### ■ Basic Part Number of Element

- 2SK1842 × 2 elements

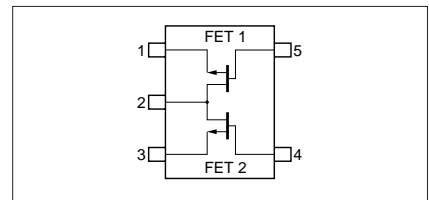
### ■ Absolute Maximum Ratings (Ta=25°C)

	Parameter	Symbol	Rated	Unit
Rating of element	Gate to drain voltage	$V_{GDO}$	-40	V
	Gate to source voltage	$V_{GSO}$	-40	V
	Gate current	$I_G$	10	mA
	Drain current	$I_D$	1	mA
Overall	Total power dissipation	$P_T$	150	mW
	Junction temperature	$T_j$	150	°C
	Storage temperature	$T_{stg}$	-55 to +150	°C



Marking Symbol: EQ

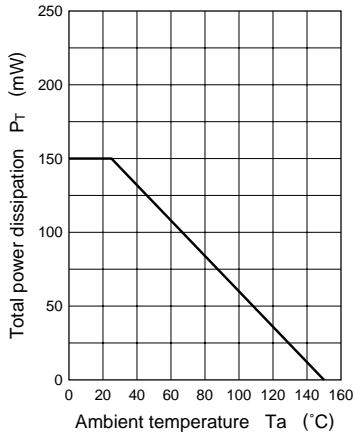
Internal Connection



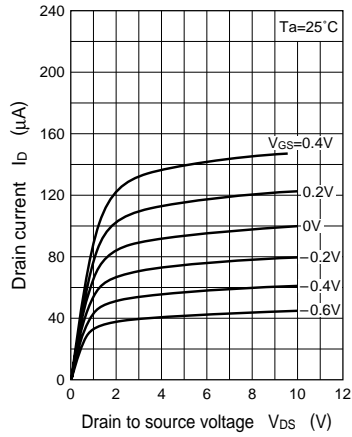
### ■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Gate to drain voltage	$V_{GDS}$	$I_G = -10\mu A, V_{GS} = 0$	-40			V
Drain current	$I_{DSS}$	$V_{DS} = 10V, V_{GS} = 0$	30		200	$\mu A$
Gate cutoff current	$I_{GSS}$	$V_{GS} = -20V, V_{DS} = 0$			-0.5	nA
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10V, V_{GS} = 0, f = 1kHz$	0.05			mS
Gate to source cutoff voltage	$V_{GSC}$	$V_{DS} = 10V, I_D = 1\mu A$		-1.3	-3.0	V
Common source short-circuit input capacitance	$C_{iss}$	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		1.0		pF
Common source reverse transfer capacitance	$C_{rss}$	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		0.4		pF
Common source short-circuit output capacitance	$C_{oss}$	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		0.4		pF

$P_T - T_a$



$I_D - V_{DS}$



$I_D - V_{GS}$

