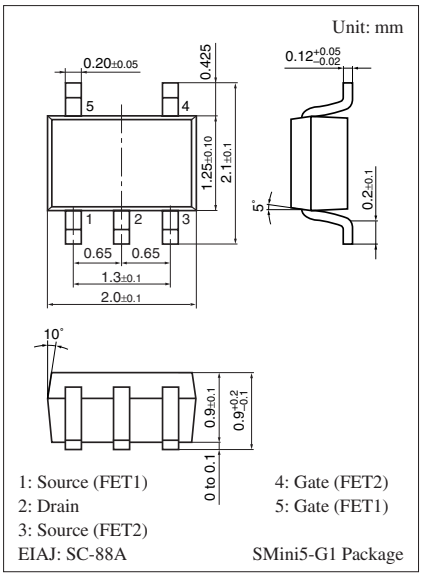
XP0D874 (XP1D874)

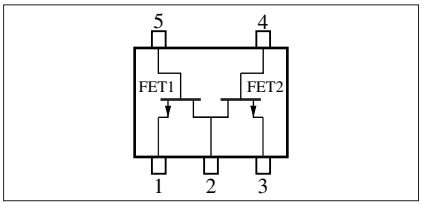
N-channel junction FET

For low-frequency impedance conversion
For infrared sensor



Marking Symbol: EQ

Internal Connection



■ Features

- Two elements incorporated into one package
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number

- 2SK1842 × 2

■ Absolute Maximum Ratings $T_a = 25°C$

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
Total power dissipation	P_T	150	mW
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

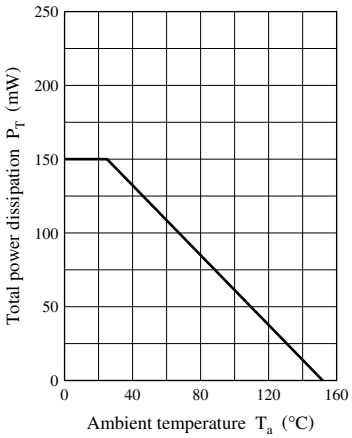
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Gate-drain surrender voltage	V_{GDS}	$I_G = -10$ μA, $V_{DS} = 0$	−40			V
Drain-source cutoff current	I_{DSS}	$V_{DS} = 10$ V, $V_{GS} = 0$	30		200	μA
Gate-source cutoff current	I_{GSS}	$V_{GS} = -20$ V, $V_{DS} = 0$			− 0.5	nA
Gate-source cutoff voltage	V_{GSC}	$V_{DS} = 10$ V, $I_D = 1$ μA		−1.3	−3.0	V
Forward transfer admittance	$\lvert Y_{fs} \rvert$	$V_{DS} = 10$ V, $V_{GS} = 0$, f = 1 KHz	0.05			mS
Short-circuit forward transfer capacitance (Common-source)	C_{iss}	$V_{DS} = 10$ V, $V_{GS} = 0$, f = 1 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

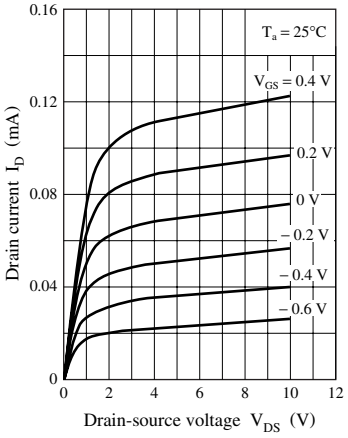
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

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

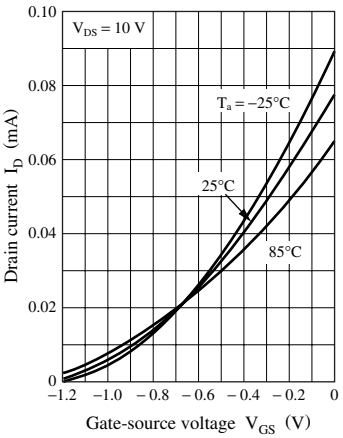
P_T — T_a



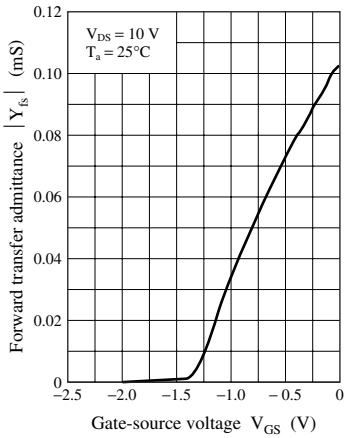
I_D — V_{DS}



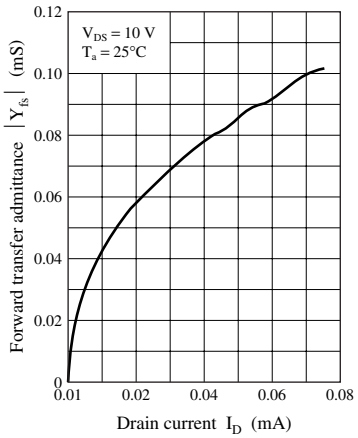
I_D — V_{GS}



$|Y_{fs}|$ — V_{GS}



$|Y_{fs}|$ — I_D



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