

# DSKTJ05

## Silicon N-channel Junction FET

For impedance conversion in low frequency

### ■ Features

- High speed stability time
- Halogen-free / RoHS compliant  
(EU RoHS / UL-94 V-0 / MSL: Level 1 compliant)

### ■ Marking Symbol: 9

### ■ Packaging

DSKTJ05×0L Embossed type (Thermo-compression sealing): 10000 pcs / reel (standard)

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

Parameter	Symbol	Rating	Unit
Drain-source voltage (Gate open)	$V_{\text{DSO}}$	20	V
Drain-gate voltage (Souece open)	$V_{\text{DGO}}$	20	V
Drain-source current (Gate open)	$I_{\text{DSO}}$	2	mA
Drain-gate current (Souece open)	$I_{\text{DGO}}$	2	mA
Power dissipation	$P_{\text{D}}$	100	mW
Operating ambient temperature	$T_{\text{opr}}$	-20 to +80	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain current*1	$I_{\text{D}}$	$V_{\text{DS}} = 2.0 \text{ V}, R_{\text{d}} = 2.2 \text{ k}\Omega \pm 1\%$	100		320	$\mu\text{A}$
Drain-source cutoff current*2	$I_{\text{DSS}}$	$V_{\text{DS}} = 2.0 \text{ V}, R_{\text{d}} = 2.2 \text{ k}\Omega \pm 1\%, V_{\text{GS}} = 0$	110		310	$\mu\text{A}$
Forward transfer admittance	$ Y_{\text{fs}} $	$V_{\text{D}} = 2.0 \text{ V}, V_{\text{GS}} = 0, f = 1 \text{ MHz}$	660	1 500		$\mu\text{S}$
Noise voltage*3	NV	$V_{\text{D}} = 2.0 \text{ V}, R_{\text{d}} = 2.2 \text{ k}\Omega \pm 1\%, C_{\text{O}} = 5 \text{ pF}, A\text{-curve}$			8	$\mu\text{V}$
Voltage gain	$G_{\text{V1}}$	$V_{\text{D}} = 2.0 \text{ V}, R_{\text{d}} = 2.2 \text{ k}\Omega \pm 1\%, C_{\text{O}} = 5 \text{ pF}, eG = 10 \text{ mV}, f = 1 \text{ kHz}$	-5.0	-1.0		dB
	$G_{\text{V2}}$	$V_{\text{D}} = 1.5 \text{ V}, R_{\text{d}} = 2.2 \text{ k}\Omega \pm 1\%, C_{\text{O}} = 5 \text{ pF}, eG = 10 \text{ mV}, f = 1 \text{ kHz}$	-7.0	-1.5		dB
	$\Delta  G_{\text{V}} \cdot f $ *4	$V_{\text{D}} = 2.0 \text{ V}, R_{\text{d}} = 2.2 \text{ k}\Omega \pm 1\%, C_{\text{O}} = 5 \text{ pF}, eG = 10 \text{ mV}, f = 1 \text{ kHz to } 70 \text{ Hz}$		0	1.7	dB
Voltage gain difference	$ G_{\text{V1}} - G_{\text{V2}} $		0		2.0	dB

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

2. A protection diode is built-in between gate and source of transistor. However if forward current flows between gate and source transistor might be damaged. So please be careful not insert reverse.

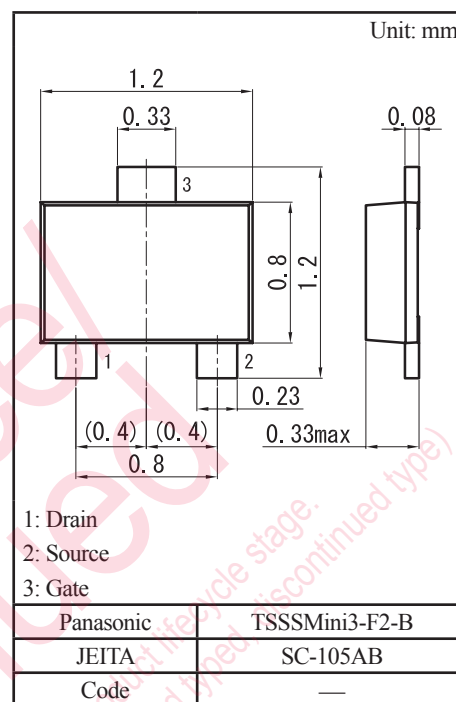
3. \*1:  $I_{\text{D}}$  is assured for  $I_{\text{DSS}}$ .

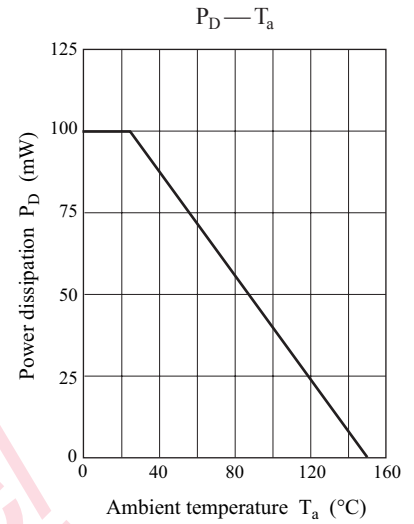
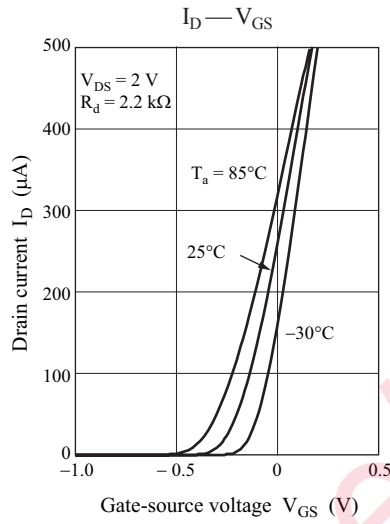
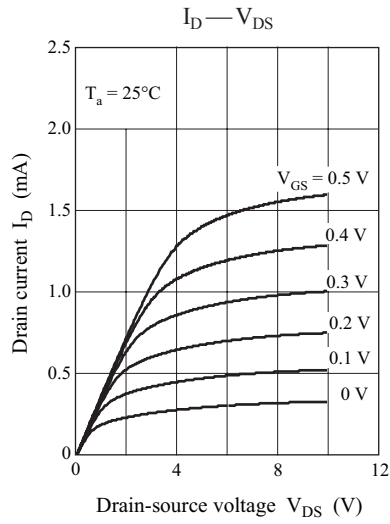
\*2: Rank classification

Code	S	T
Rank	S	T
$I_{\text{D}}$ ( $\mu\text{A}$ )	100 to 220	180 to 320
$I_{\text{DSS}}$ ( $\mu\text{A}$ )	110 to 210	190 to 310
Marking Symbol	9S	9T

\*3: NV is assured for design.

\*4:  $\Delta |G_{\text{V}} \cdot f|$  is assured for AQL 0.065%. (The measurement method is used by source-grounded circuit.)



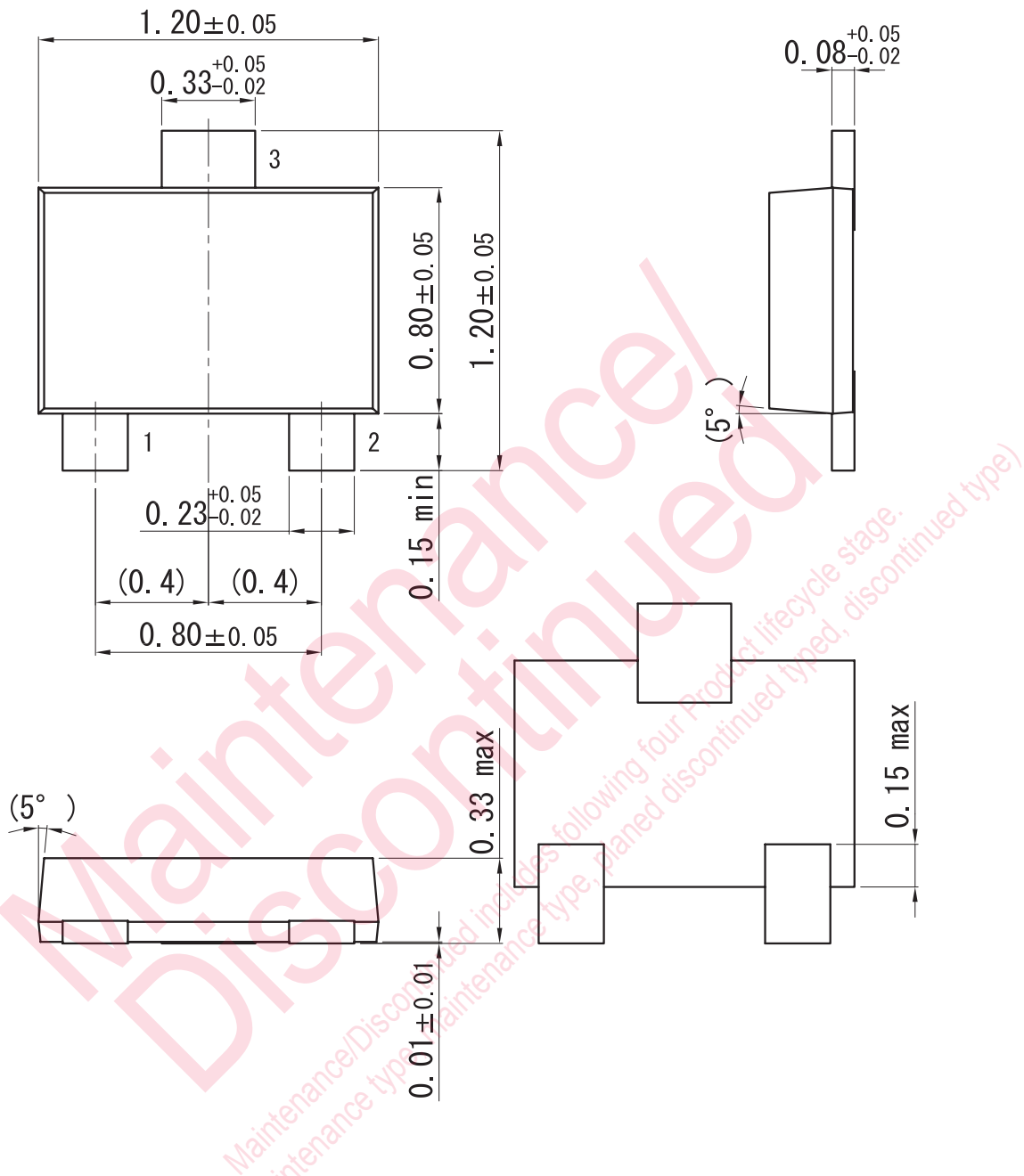


Maintenance/Discontinued

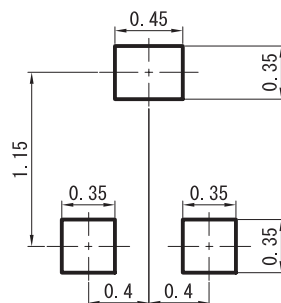
Maintenance/Discontinued includes following four Product lifecycle stage.  
 (planned maintenance type, maintenance type, planned discontinued type, discontinued type)

TSSSMini3-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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