

# 2SK3077

## 900 MHz BAND AMPLIFIER APPLICATIONS (GSM)

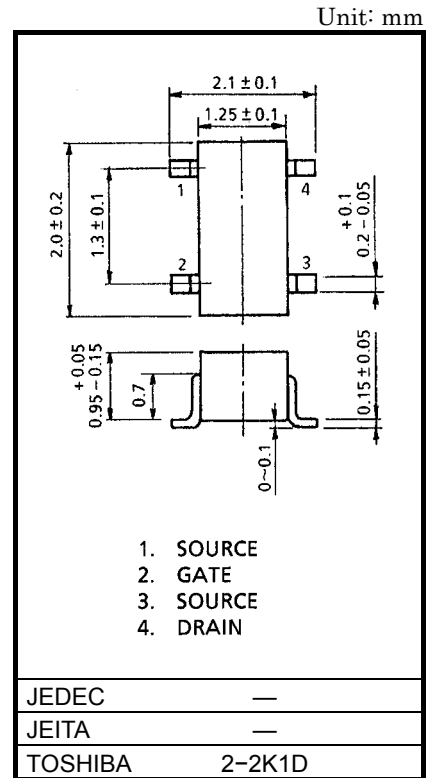
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- Output Power :  $P_O = 15.0 \text{ dBmW (Min.)}$
- Gain :  $G_P = 15.0 \text{ dB (Min.)}$
- Drain Efficiency :  $\eta_D = 20\% \text{ (Typ.)}$

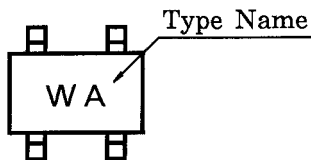
## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	$V_{DSS}$	10	V
Gate-Source Voltage	$V_{GSS}$	5	V
Drain Current	$I_D$	0.1	A
Power Dissipation	$P_{D^*}$	250	mW
Channel Temperature	$T_{ch}$	150	°C
Storage Temperature Range	$T_{stg}$	-45~150	°C

\*:  $T_c = 25^\circ\text{C}$  When mounted on a 1.6 mm glass epoxy PCB



## MARKING



## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

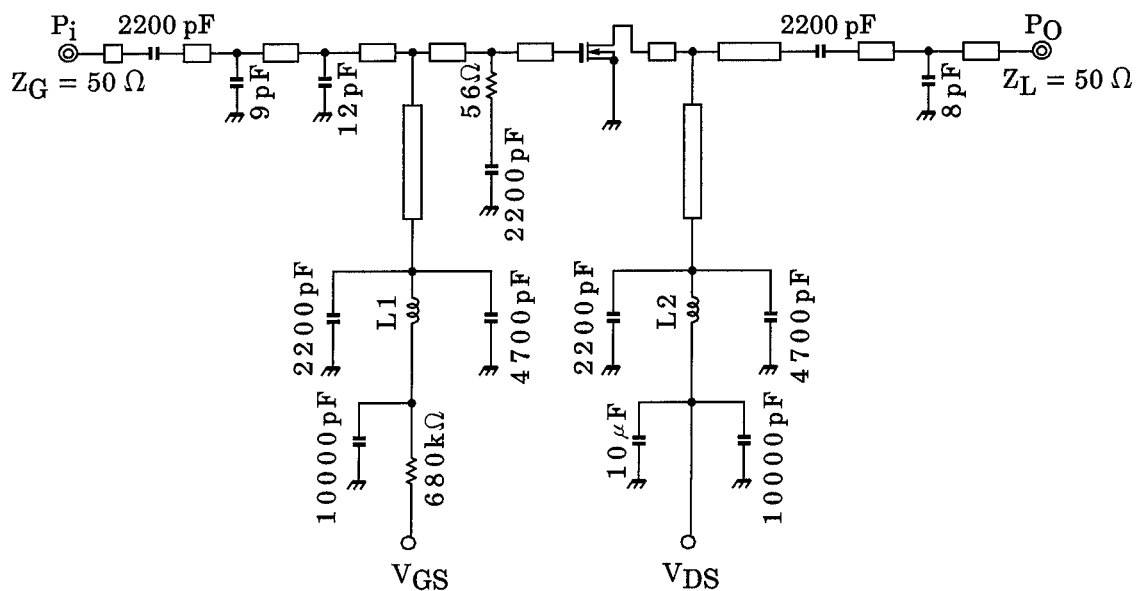
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Output Power	$P_O$	$V_{DS} = 4.8V$ $I_{D1} = 43\text{ mA}$ ( $V_{GS} = \text{adjust}$ ) $f = 915\text{ MHz}$ , $P_i = 0\text{ dBmW}$	15.0	—	—	dBmW
Drain Efficiency	$\eta_D$		—	20.0	—	%
Power Gain	$G_p$		15.0	—	—	dB
Threshold Voltage	$V_{th}$	$V_{DS} = 4.8\text{ V}$ , $I_D = 0.5\text{ mA}$	0.25	—	1.25	V
Drain Cut-off Current	$I_{DSS}$	$V_{DS} = 10\text{ V}$ , $V_{GS} = 0\text{ V}$	—	—	10	$\mu\text{A}$
Gate-Source Leakage Current	$I_{GSS}$	$V_{GS} = 5\text{ V}$ , $V_{DS} = 0\text{ V}$	—	—	5	$\mu\text{A}$

Note 1: These characteristic values are measured using measurement tools specified by Toshiba.

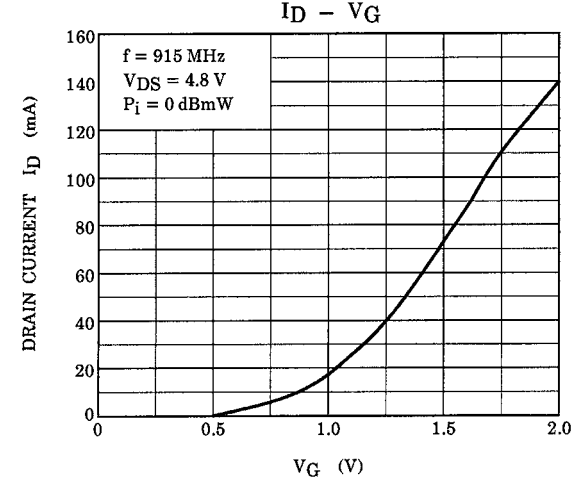
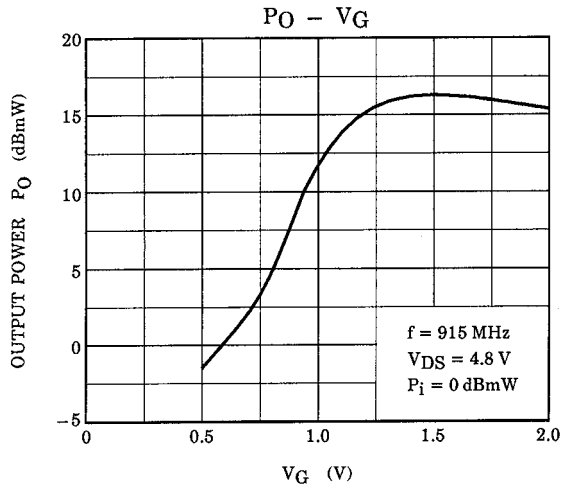
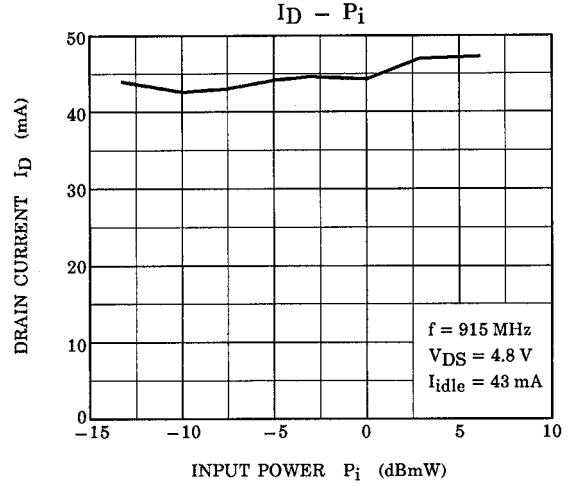
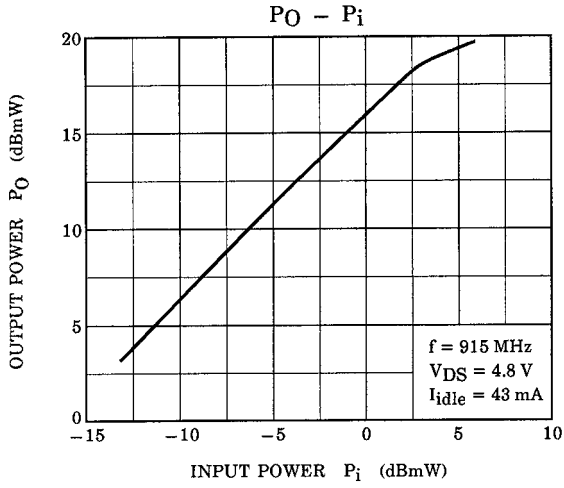
### CAUTION

This transistor is the electrostatic sensitive device.  
Please handle with caution.

### RF OUTPUT POWER TEST FIXTURE



L1 :  $\phi 0.6\text{ mm}$ , 5.5 mmID, 5T  
L2 :  $\phi 0.6\text{ mm}$ , 5.5 mmID, 8T



**CAUTION**

These are only typical curves and devices are not necessarily guaranteed at these curves.

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