

2SK3077A

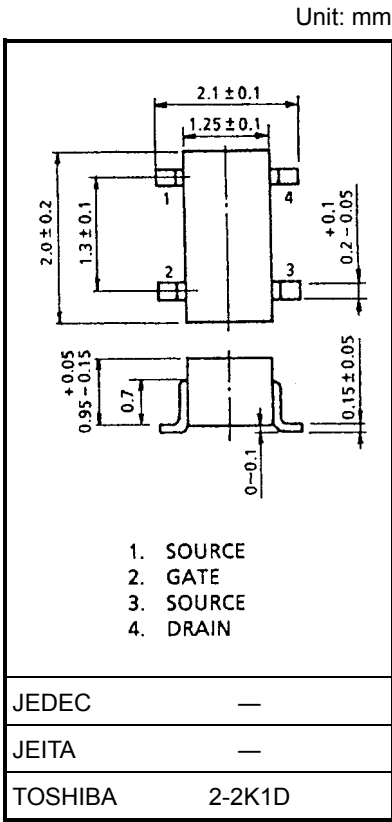
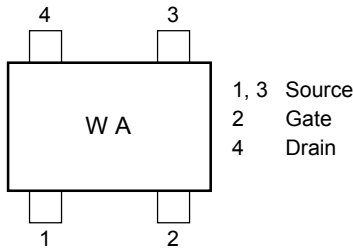
VHF/UHF Band Amplifier Applications

- Output power:  $P_O \geq 20.5\text{dBmW}$
- Gain:  $G_p \geq 10.5\text{dB}$
- Drain Efficiency:  $\eta_D \geq 50\%$

Maximum Ratings (Ta = 25°C)

Characteristics	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	$P_D$	0.1	W
Channel temperature	$T_{ch}$	150	°C
Storage temperature range	$T_{stg}$	-45~150	°C

Marking



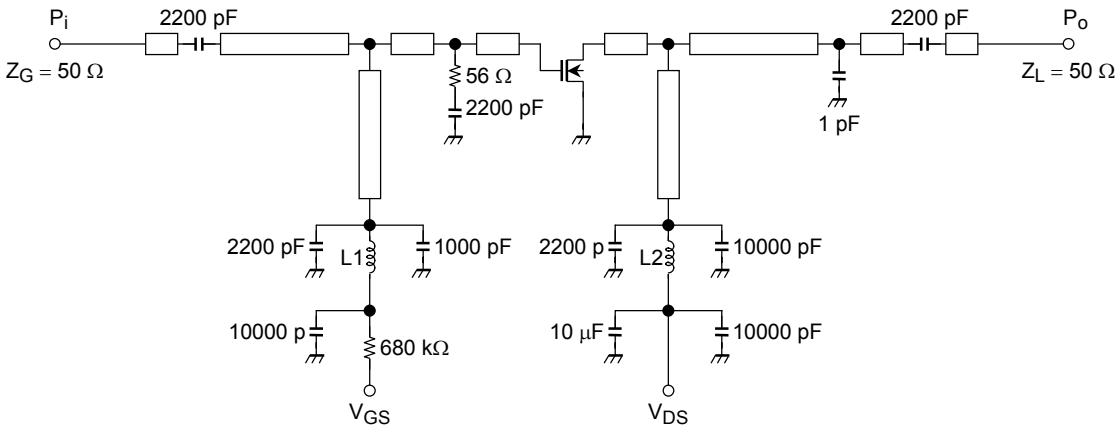
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Output power	$P_O$	$V_{DS} = 4.5\text{ V}$ , $I_{idle} = 20\text{ mA}$ ( $V_{GS} = \text{adjust}$ ) $f = 470\text{ MHz}$ , $P_i = 10\text{dBmW}$	20.5	—	—	dBmW
Drain efficiency	$\eta_D$		50	—	—	%
Power gain	$G_p$		10.5	—	—	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	μA
Gate-source leakage current	$I_{GSS}$	$V_{GS} = 5\text{ V}$ , $V_{DS} = 0\text{ V}$	—	—	5	μA
Load mismatch (Note 1)	—	$V_{DS} = 6.5\text{ V}$ , $f = 470\text{ MHz}$ , $P_i = 10\text{dBmW}$ , $P_O = 20.5\text{dBmW}$ ( $V_{GS} = \text{adjust}$ ) VSWR LOAD 10:1 all phase	No degradation			—

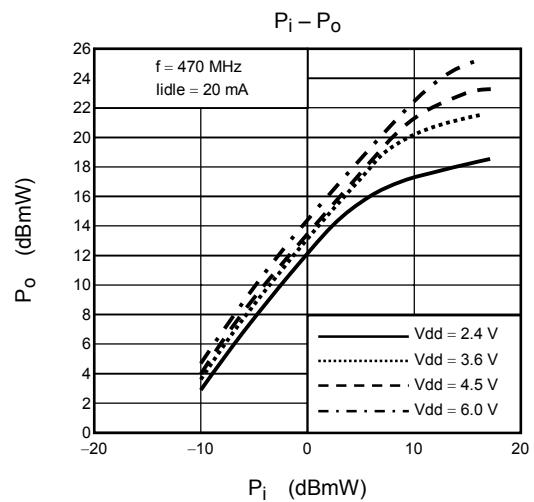
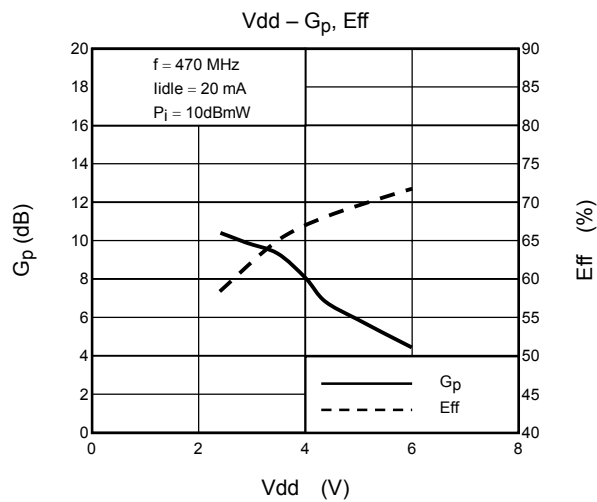
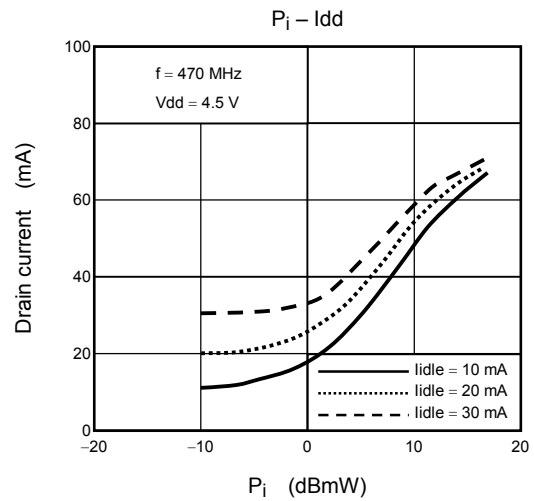
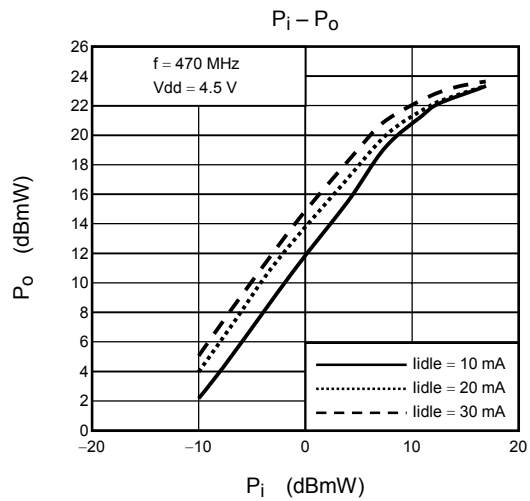
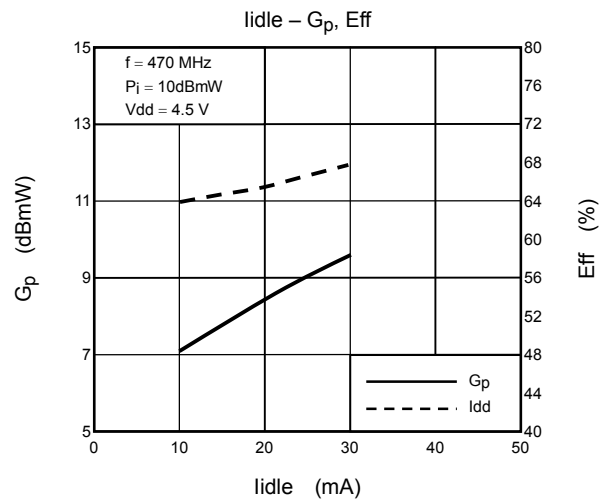
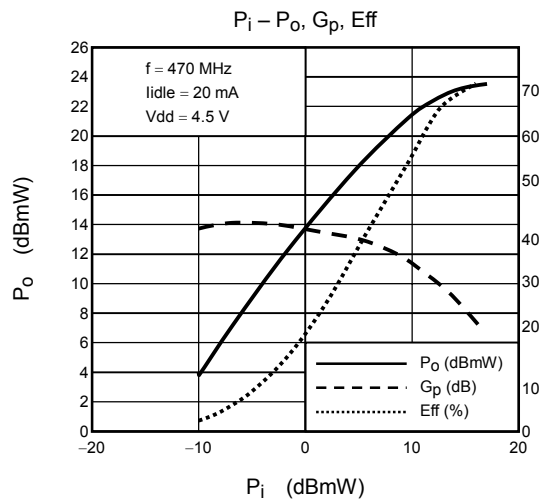
Caution: This transistor is the electrostatic sensitive device. Please handle with caution.

Note 1: When the RF output power test fixture is used

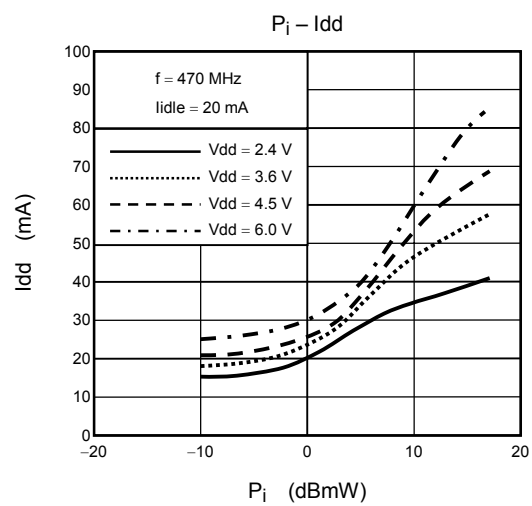
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RF Output Power Test Fixture



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

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