

TOSHIBA FIELD EFFECT TRANSISTOR SILICON N CHANNEL MOS TYPE

2SK3074

RF POWER MOSFET
FOR VHF-AND UHF-BAND POWER AMPLIFIER

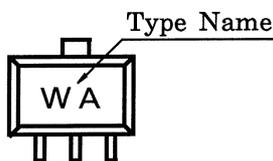
- Output Power : $P_O \geq 630\text{mW}$
- Power Gain : $G_P \geq 14.9\text{dB}$
- Drain Efficiency : $\eta_D \geq 45\%$

MAXIMUM RATINGS (Ta = 25°C)

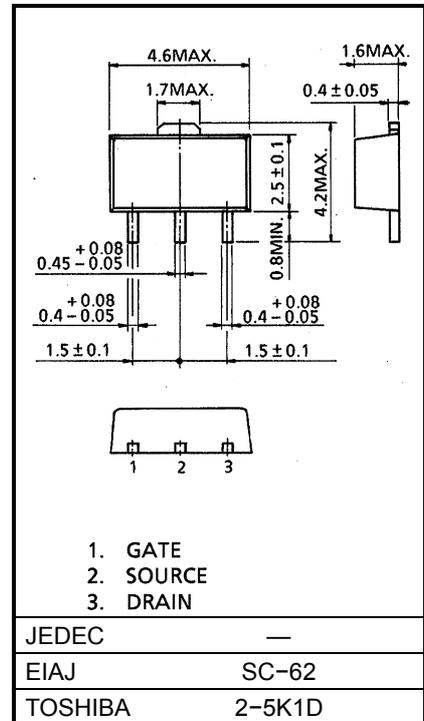
CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DSS}	30	V
Gate-Source Voltage	V_{GSS}	25	V
Drain Current	I_D	1	A
Drain Power Dissipation	P_D^*	3	W
Channel Temperature	T_{ch}	150	°C
Storage Temperature Range	T_{stg}	-45~150	°C

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

MARKING



Unit in mm



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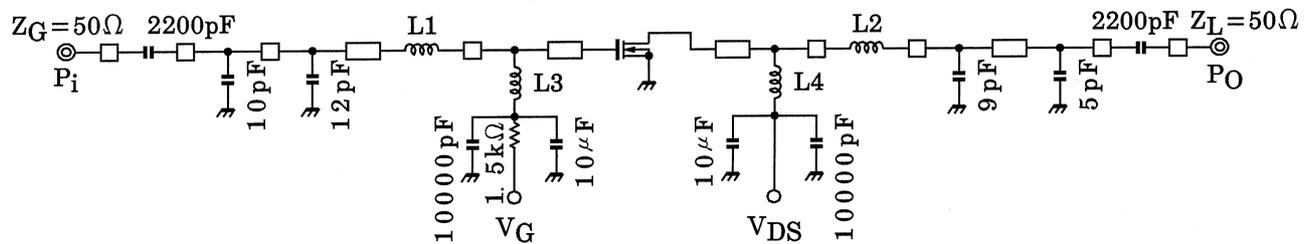
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Power	P_O	$V_{DS} = 9.6V$ $I_{Dle} = 50mA$ ($V_{GS} = \text{adjust}$) $f = 520MHz$, $P_i = 20mW$ $Z_G = Z_L = 50\Omega$	630	—	—	mW
Drain Efficiency	η_D		45	—	—	%
Power Gain	G_P		14.9	—	—	dB
Gate Threshold Voltage	V_{th}	$V_{DS} = 9.6V$, $I_D = 0.5mA$	1.4	1.9	2.4	V
Drain Cut-off Current	I_{DSS}	$V_{DS} = 20V$, $V_{GS} = 0$	—	—	10	μA
Gate-Source Leakage Current	I_{GSS}	$V_{GS} = 10V$, $V_{DS} = 0$	—	—	5	μA

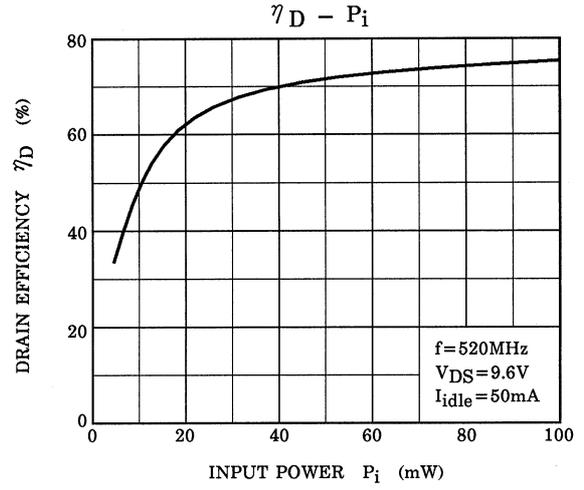
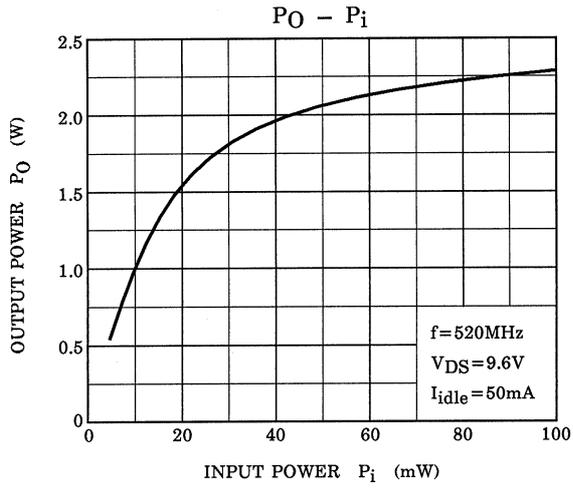
HANDLING PRECAUTION

- When handling individual devices, be sure that working desks, human bodies and soldering iron are protected against electrostatic electricity.

RF OUTPUT POWER TEST FIXTURE



- L1, L2 : $\phi 0.8$, 2ID, 1T
- L3 : $\phi 0.8$, 5.5ID, 4T
- L4 : $\phi 0.8$, 5.5ID, 8T



CAUTION

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