

**TOSHIBA**

**2SK2854**

TOSHIBA FIELD EFFECT TRANSISTOR SILICON N CHANNEL MOS TYPE

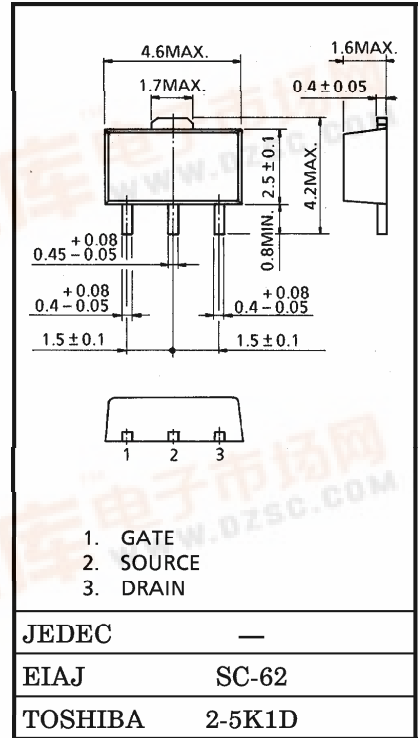
# 2SK2854

UHF BAND AMPLIFIER APPLICATION

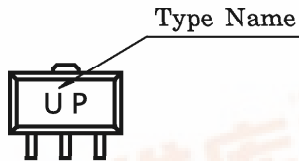
Unit in mm

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V <sub>DSS</sub>	10	V
Gate-Source Voltage	V <sub>GSS</sub>	±6	V
Drain Current	I <sub>D</sub>	0.5	A
Drain Power Dissipation	P <sub>D</sub>	0.5	W
Channel Temperature	T <sub>ch</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55~150	°C



MARKING



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

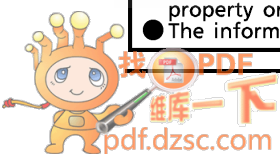
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Power	P <sub>O</sub>	V <sub>DS</sub> = 6V, f = 849MHz P <sub>i</sub> = 13dBmW	23	—	—	dBmW
Drain Efficiency	η <sub>D</sub>	V <sub>DS</sub> = 6V, f = 849MHz P <sub>i</sub> = 13dBmW, P <sub>O</sub> = 23dBmW	40	—	—	%
Drain-Source Breakdown Voltage	V <sub>(BR) DSS</sub>	V <sub>GSS</sub> = 0, I <sub>D</sub> = 1μA	10	—	—	V
Drain Cut-off Current	I <sub>DSS</sub>	V <sub>DS</sub> = 6V, V <sub>GSS</sub> = 0	—	—	100	nA
Threshold Voltage	V <sub>th</sub>	V <sub>DS</sub> = 6V, I <sub>D</sub> = 250μA	1.0	1.4	1.8	V
Gate-Source Leakage Current	I <sub>GSS</sub>	V <sub>GSS</sub> = 6V, V <sub>DS</sub> = 0	—	—	±100	nA

CAUTION

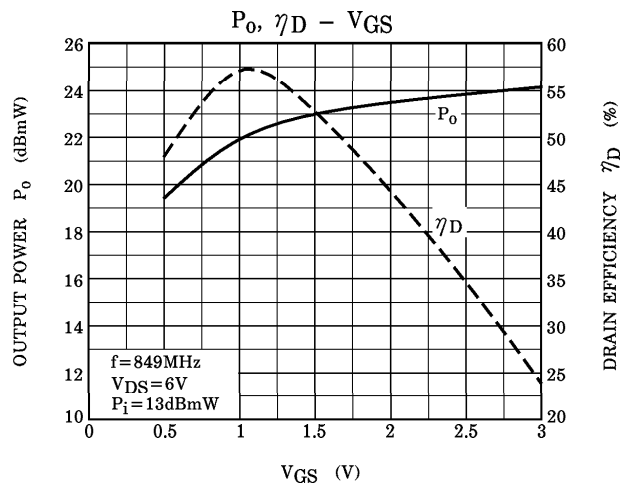
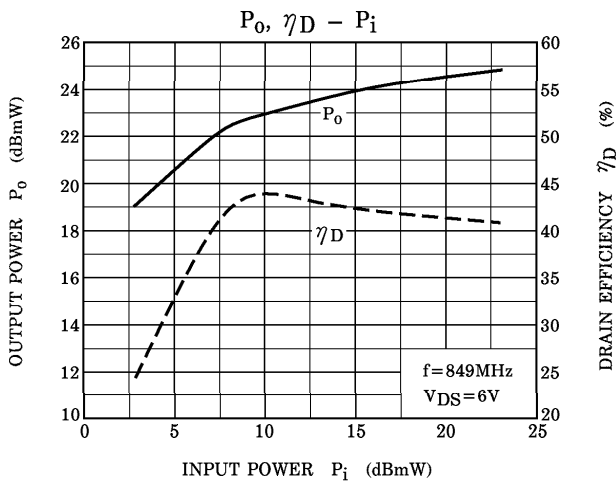
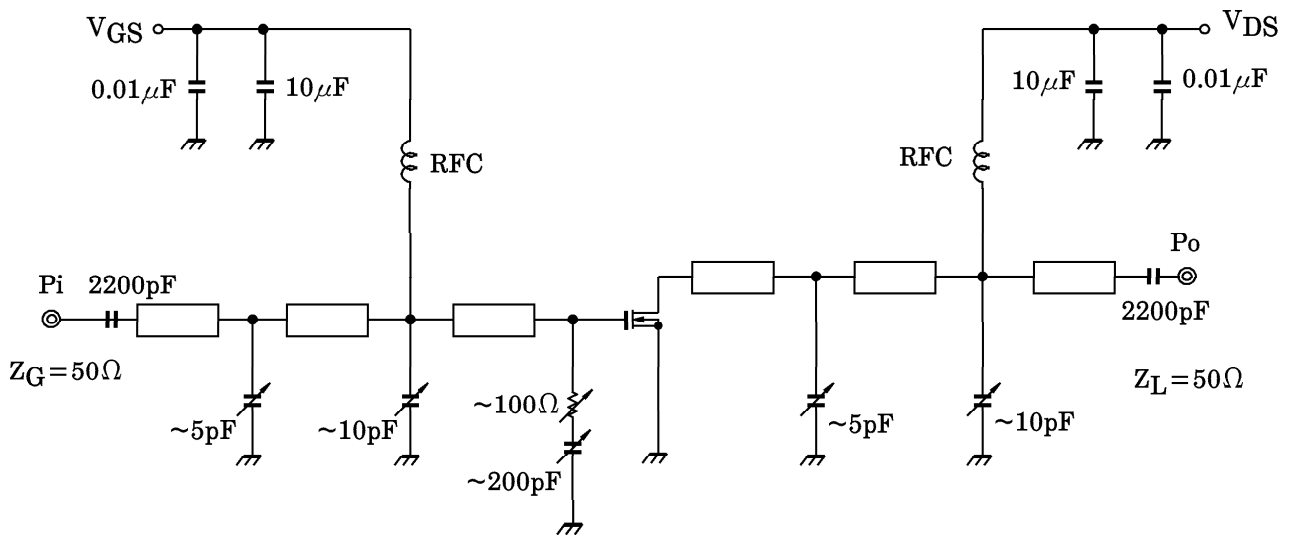
This transistor is the electrostatic sensitive device.  
Please handle with caution.

961001EAA1

- TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.



RF OUTPUT POWER TEST FIXTURE



CAUTION

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