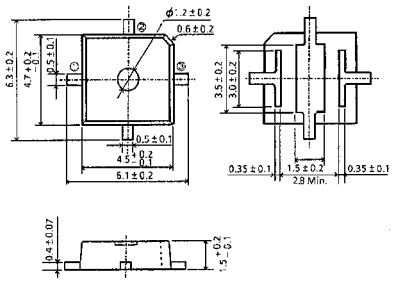
TOSHIBA FIELD EFFECT TRANSISTOR SILICON N CHANNEL MOS TYPE

2SK3079

900 MHz BAND AMPLIFIER APPLICATIONS (GSM)

- Output Power : P_O = 33.0dBmW (Min)
- Gain : G_P = 7.0dB (Min)
- Drain Efficiency : η_D = 40% (Min)

Unit: mm



1. GATE
2. SOURCE (HEAT SINK)
3. DRAIN

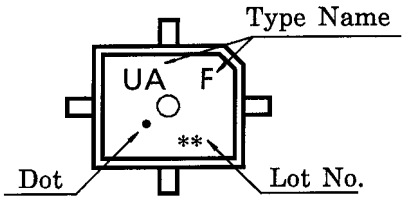
JEDEC	—
JEITA	—
TOSHIBA	2−5N1A

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC S	YMBOL	RATING	UNIT
Drain-Source Voltage	V_{DSS} 10		V
Gate-Source Voltage	V_{GSS} 5		V
Drain Current	I_D	5	A
Power Dissipation	P_{D*} 20.	0	W
Channel Temperature	T_{ch} 150		°C
Storage Temperature Range	T_{stg}	−45~150 °	C

*: Tc = 25°C When mounted on a 1.6 mm glass epoxy PCB

MARKING



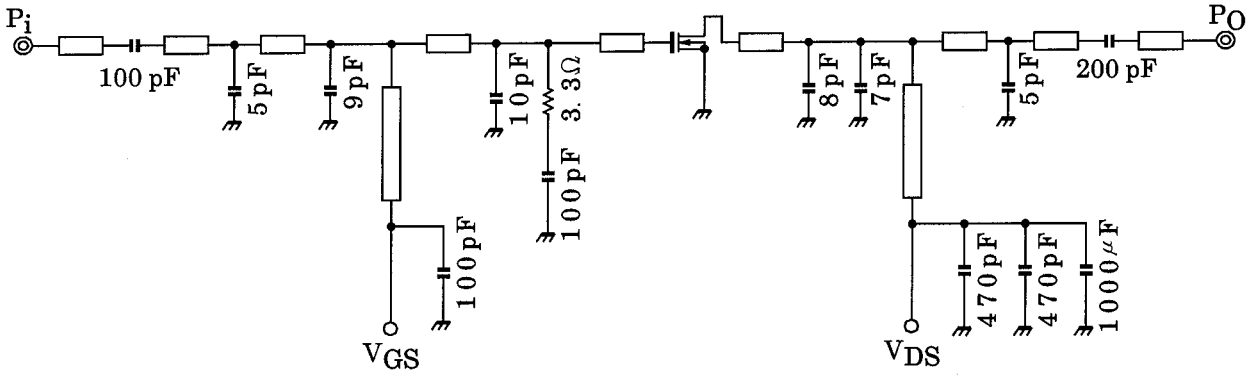
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC S	YMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Output Power	P_O 33.	V_{DS} = 4.8V Iidle = 800 mA (V_{GS} = adjust) f = 915MHz, P_i = 26dBmW $Z_G = Z_L$ = 50 Ω	0	—	—	dBmW
Drain Efficiency	η_D 40.		0	—	—	%
Power Gain	G_P		7.0	—	—	dB
Threshold Voltage	V_{th}	V_{DS} = 4.8 V, I_D = 0.5 mA	0.30	—	1.30	V
Drain Cut-off Current	I_{DSS}	V_{DS} = 10 V, V_{GS} = 0 V	—	—	10	μA
Gate-Source Leakage Current	I_{GSS}	V_{GS} = 5 V, V_{DS} = 0 V	—	—	5	μA
Load Mismatch	—	V_{DS} = 6.5 V, f = 915 MHz P_i = 26dBmW P_O = 33.0dBmW (V_{GS} = adjust) VSWR LOAD 10: 1 all phase	No Degradation			—

CAUTION

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

RF OUTPUT POWER TEST FIXTURE



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