

TOSHIBA FIELD EFFECT TRANSISTOR GaAs N-CHANNEL DUAL GATE MES TYPE

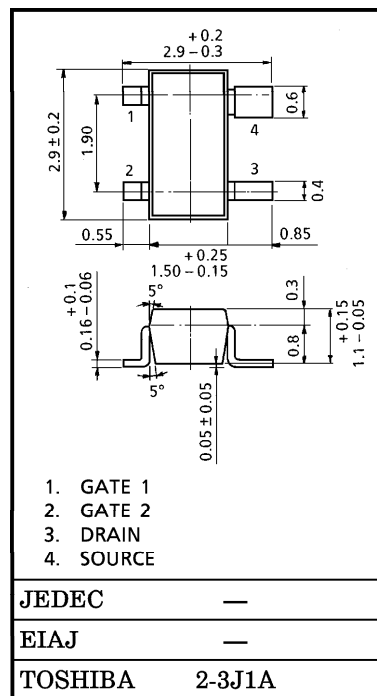
# 3SK240

TV TUNER, UHF RF AMPLIFIER APPLICATIONS

Unit in mm

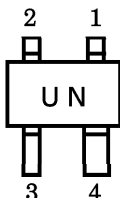
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Gate1-Drain Voltage	V <sub>G1D0</sub>	-9	V
Gate2-Drain Voltage	V <sub>G2D0</sub>	-9	V
Gate1-Source Voltage	V <sub>G1S</sub>	-4	V
Gate2-Source Voltage	V <sub>G2S</sub>	-4	V
Gate1 Current	I <sub>G1</sub>	1	mA
Gate2 Current	I <sub>G2</sub>	1	mA
Power Dissipation	P <sub>D</sub>	150	mW
Channel Temperature	T <sub>ch</sub>	125	°C
Storage Temperature Range	T <sub>stg</sub>	-55~125	°C



Weight : 0.013g

MARKING



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate1 Leakage Current	I <sub>G1SS</sub>	V <sub>DS</sub> =0, V <sub>G1S</sub> =-3V, V <sub>G2S</sub> =0	—	—	-4	μA
Gate2 Leakage Current	I <sub>G2SS</sub>	V <sub>DS</sub> =0, V <sub>G1S</sub> =0, V <sub>G2S</sub> =-3V	—	—	-4	μA
Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =3V, V <sub>G1S</sub> =0, V <sub>G2S</sub> =0	6	—	20	mA
Gate1-Source Cut-off Voltage	V <sub>G1S (OFF)</sub>	V <sub>DS</sub> =3V, V <sub>G2S</sub> =0, I <sub>D</sub> =100μA	-0.7	—	-1.8	V
Gate2-Source Cut-off Voltage	V <sub>G2S (OFF)</sub>	V <sub>DS</sub> =3V, V <sub>G1S</sub> =0, I <sub>D</sub> =100μA	-0.7	—	-1.8	V
Forward Transfer Admittance	Y <sub>fs</sub>	V <sub>DS</sub> =3V, V <sub>G2S</sub> =1V, I <sub>D</sub> =5mA f=1kHz	—	19	—	ms
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> =3V, V <sub>G2S</sub> =1V, I <sub>D</sub> =5mA	—	0.6	1.4	pF
Reverse Transfer Capacitance	C <sub>rss</sub>	f=1kHz	—	0.013	0.030	
Power Gain	G <sub>ps</sub>	V <sub>DS</sub> =3V, V <sub>G2S</sub> =1V, I <sub>D</sub> =5mA	17	20.5	—	dB
Noise Figure	NF	f=800MHz (Fig.1)	—	1.0	2.0	

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