

# 2SK1235 — 12GHz-Band Local Oscillator, Amplifier Applications

N-Channel GaAs MES FET

**Features**

- Casting mold package
- Suited for 12GHz-band local oscillation
- Adoption of high reliable protection film

**Absolute Maximum Ratings at Ta = 25°C**

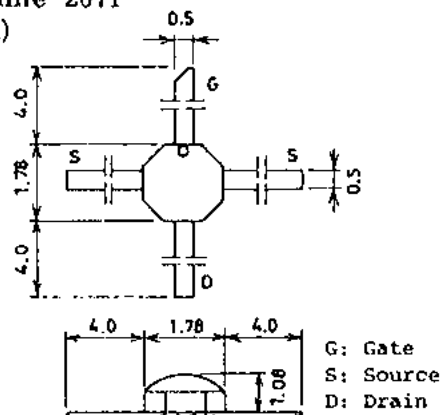
			unit
Drain to Source Voltage	V <sub>DS</sub>	6	V
Gate to Source Voltage	V <sub>GS</sub>	-5	V
Drain Current	I <sub>D</sub>	100	mA
Allowable Power Dissipation	P <sub>D</sub>	300	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-65 to +150	°C

**Electrical Characteristics at Ta = 25°C**

		min	typ	max	unit
Gate to Drain Breakdown Voltage	V <sub>(BR)GDS</sub> I <sub>G</sub> = -10μA, V <sub>DS</sub> = 0V	-5			V
Gate Cutoff Current	I <sub>GSS</sub> V <sub>GS</sub> = -3V, V <sub>DS</sub> = 0V			-10	μA
Drain Current	I <sub>DSS</sub> V <sub>DS</sub> = 3V, V <sub>GS</sub> = 0V	20	60	90	mA
Gate to Source Cutoff Voltage	V <sub>GS(off)</sub> V <sub>DS</sub> = 3V, I <sub>D</sub> = 100μA	-0.5		-5	V
Forward Transfer Admittance	y <sub>fs</sub>   V <sub>DS</sub> = 3V, I <sub>D</sub> = 10mA	20	40		mS
Noise Figure	NF V <sub>DS</sub> = 3V, I <sub>D</sub> = 10mA, f = 12GHz		2.2	3	dB
Associated Gain	G <sub>a</sub> V <sub>DS</sub> = 3V, I <sub>D</sub> = 10mA, f = 12GHz	5	6		dB
Maximum Available Power Gain	MAG V <sub>DS</sub> = 3V, I <sub>D</sub> = 30mA, f = 12GHz		7		dB
Maximum Oscillation Frequency	f <sub>max</sub> V <sub>DS</sub> = 3V, I <sub>D</sub> = 30mA		40		GHz

The application circuit diagrams and output constants herein are included as an example and provide no guarantee for designing equipment to be mass-produced. The information herein is believed to be accurate and reliable. However, no responsibility is assumed by SANYO for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

Case Outline 2071  
(unit : mm)



Specifications and information herein are subject to change without notice.