

**SANYO**

No.3162

**2SK1233**

N-Channel GaAs MES FET

4GHz-Band Local Oscillator,  
Amplifier Applications**Features**

- Casting mold package
- Suited for 4GHz-band local oscillator
- Adoption of high reliable protection film

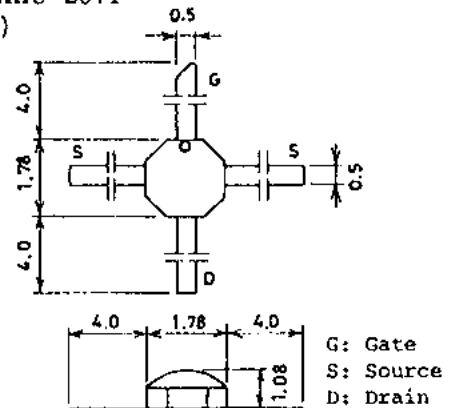
**Absolute Maximum Ratings at Ta = 25°C**

			unit
Drain to Source Voltage	$V_{DS}$	6	V
Gate to Source Voltage	$V_{GS}$	-5	V
Drain Current	$I_D$	100	mA
Allowable Power Dissipation	$P_D$	300	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-65 to +150	°C

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

			min	typ	max	unit
Gate to Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G = -10\mu A, V_{DS} = 0V$	-5			V
Gate Cutoff Current	$I_{GSS}$	$V_{GS} = -3V, V_{DS} = 0V$			-10	$\mu A$
Drain Current	$I_{DSS}$	$V_{DS} = 3V, V_{GS} = 0V$	20	60	90	mA
Gate to Source Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 3V, I_D = 100\mu A$	-0.5		-5	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 3V, I_D = 10mA$	20	40		mS
Noise Figure	NF	$V_{DS} = 3V, I_D = 10mA, f = 4GHz$		1.2	1.5	dB
		$f = 8GHz$		2		dB
Associated Gain	$G_a$	$V_{DS} = 3V, I_D = 10mA, f = 4GHz$	8.5	11		dB
		$f = 8GHz$		8		dB
Maximum Stabilized Power Gain	$MSG$	$V_{DS} = 3V, I_D = 30mA, f = 4GHz$		12		dB
Maximum Oscillation Frequency	$f_{max}$	$V_{DS} = 3V, I_D = 30mA$		40		GHz

The application circuit diagrams and circuit 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.

**SANYO Electric Co., Ltd. Semiconductor Overseas Marketing Div.**  
Natsume Bldg., 18-6, 2-chome, Yushima, Bunkyo-ku, TOKYO 113 JAPAN

7219TA, TS No.3162-1/1