FLM5964-8F/001

C-Band Internally Matched FET

FEATURES

- High Output Power: P1dB=39.5dBm(Typ.)
- High Gain: G1dB=9.0dB(Typ.)
- High PAE: ηadd=35%(Typ.)
- Broad Band: 5.85 to 6.75GHz
- Impedance Matched Zin/Zout = 50ohm
- Hermetically Sealed Package

DESCRIPTION

The FLM5964-8F/001 is a power GaAs FET that is internally matched for standard communication bands to provide optimum power and gain in a 50ohm system.

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Rating	Unit
Drain-Source Voltage (Tc=25deg.C)	V_{DS}	15	V
Gate-Source Voltage (Tc=25deg.C)	V_{GS}	-5	V
Total Power Dissipation	P_T	42.8	W
Storage Temperature	T_{stg}	-65 to +175	deg.C
Channel Temperature	T_{ch}	+175	deg.C

RECOMMENDED OPERATING CONDITION

Item	Symbol	Condition	Recommend	Unit
DC Input Voltage	V_{DS}		≤10	V
Forward Gate Current	I_{GF}	R_G=100 ohm	≤+32.0	mA
Reverse Gate Current	I_{GR}	R_G=100 ohm	≥-4.4	mA
Storage Temperature	T_{stg}	-55 to +125		deg.C
Channel Temperature	Tch		≤+155	deg.C

ELECTRICAL CHARACTERISTICS (Case Temperature Tc=25deg.C)

Item	Symbol	Condition	Limit			Unit
			Min.	Typ.	Max.	
Drain Current	I_{DSS}	V_{DS}=5V , V_{GS}=0V	-	3.4	5.2	A
Trans conductance	g_m	V_{DS}=5V , I_{DS}=2.2A	-	3.4	-	S
Pinch-off Voltage	V_p	V_{DS}=5V , I_{DS}=170mA	-0.5	-1.5	-3.0	V
Gate-Source Breakdown Voltage	V_{GSO}	I_{GS}=-170uA	-5.0	-	-	V
Output Power at 1dB G.C.P.	P_{1dB}	V_{DS}=10V f= 5.85 to 6.75 GHz I_{DS}DC=0.65Idss (typ.) Zs=Z_L=50 ohm	38.5	39.5	-	dBm
Power Gain at 1dB G.C.P.	G_{1dB}		8.0	9.0	-	dB
Drain Current	I_{dsr}		-	2.2	2.6	A
Power-added Efficiency	η_{add}		-	35	-	%
Gain Flatness	ΔG		-	-	1.2	dB
3rd Order Intermodulation Distortion	IM3	f=6.75 GHz Δf=10MHz, 2-tone Test Pout=28.5dBm (S.C.L.)	-42	-45	-	dBc
Thermal Resistance	R_{th}	Channel to Case	-	3.0	3.5	deg.C/W
Channel Temperature Rise	ΔT_{ch}	10V x I_{dsr} x R_{th}	-	-	80	deg.C

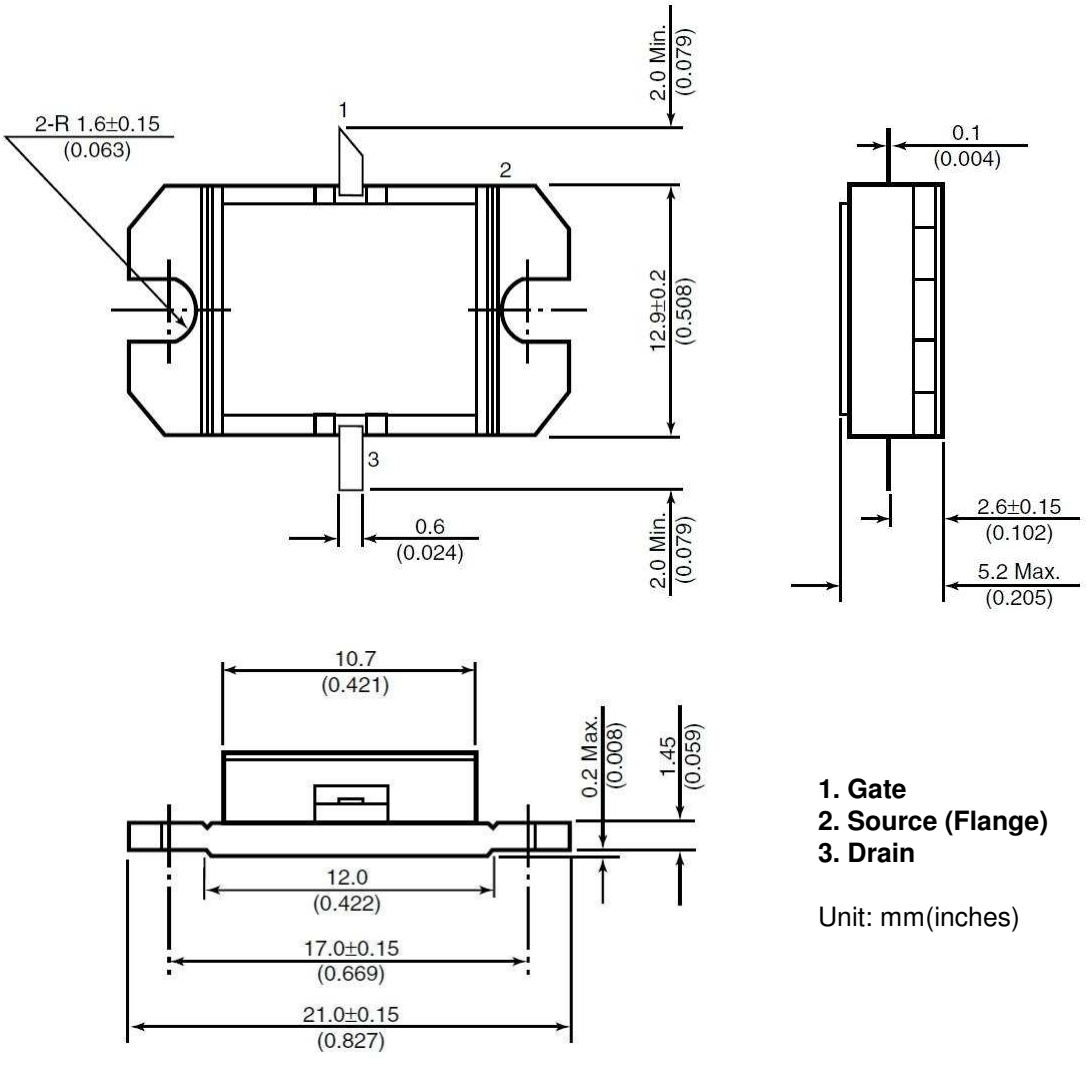
CASE STYLE : IB **S.C.L. : Single Carrier Level** **G.C.P.: Gain Compression Point**

ESD	**Class 3A**	**4000V to 8000V**

Note : Based on EIAJ ED-4701 C-111A (C=100pF, R=1.5kohm)

RoHS COMPLIANCE	Yes

Case Style "IB"
Metal-Ceramic Hermetic Package



1. Gate
2. Source (Flange)
3. Drain

Unit: mm(inches)

For further information please contact:

http://global-sei.com/Electro-optic/about/office.html

CAUTION

This product contains **gallium arsenide (GaAs)** which can be hazardous to the human body and the environment. For safety, observe the following procedures:

・Do not put these products into the mouth.

・Do not alter the form of this product into a gas, powder, or liquid through burning, crushing, or chemical processing as these by-products are dangerous to the human body if inhaled, ingested, or swallowed.

・Observe government laws and company regulations when discarding this product. This product must be discarded in accordance with methods specified by applicable hazardous waste procedures.