

FEATURES

- High Output Power: P1dB=41.5dBm(Typ.)
- High Gain: G1dB=9.0dB(Typ.)
- High PAE: η_{add} =37%(Typ.)
- Broad Band: 5.85 to 6.75GHz
- Impedance Matched Zin/Zout = 50ohm
- Hermetically Sealed Package



DESCRIPTION

The FLM5964-12F/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	57.6	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 =50 ohm	≤+32.0	mA
Reverse Gate Current	I _{GR}	R _G =50 ohm	≥-5.6	mA
Storage Temperature	T _{stg}		-55 to +125	deg.C
Channel Temperature	T _{ch}		≤+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	-	5	7.5	A
Trans conductance	g _m	V _{DS} =5V, I _{DSS} =3.25A	-	5	-	S
Pinch-off Voltage	V _p	V _{DS} =5V, I _{DSS} =250mA	-0.5	-1.5	-3.0	V
Gate-Source Breakdown Voltage	V _{GSO}	I _{GS} =-250uA	-5.0	-	-	V
Output Power at 1dB G.C.P.	P _{1dB}	V _{DS} =10V f= 5.85 to 6.75 GHz	40.5	41.5	-	dBm
Power Gain at 1dB G.C.P.	G _{1dB}		8.0	9.0	-	dB
Drain Current	I _{DSR}	I _{DS} =0.65I _{DSS} (typ.)	-	3.25	3.8	A
Power-added Efficiency	η_{add}	Z _S =Z _L =50 ohm	-	37	-	%
Gain Flatness	ΔG		-	-	1.6	dB
3rd Order Intermodulation Distortion	IM ₃	f=6.75 GHz Δf =10MHz, 2-tone Test P _{out} =30.5dBm (S.C.L.)	-42	-45	-	dBc
Thermal Resistance	R _{th}	Channel to Case	-	2.3	2.6	deg.C/W
Channel Temperature Rise	ΔT_{ch}	10V x I _{DSR} x R _{th}	-	-	80	deg.C

CASE STYLE : IK

S.C.L. : Single Carrier Level

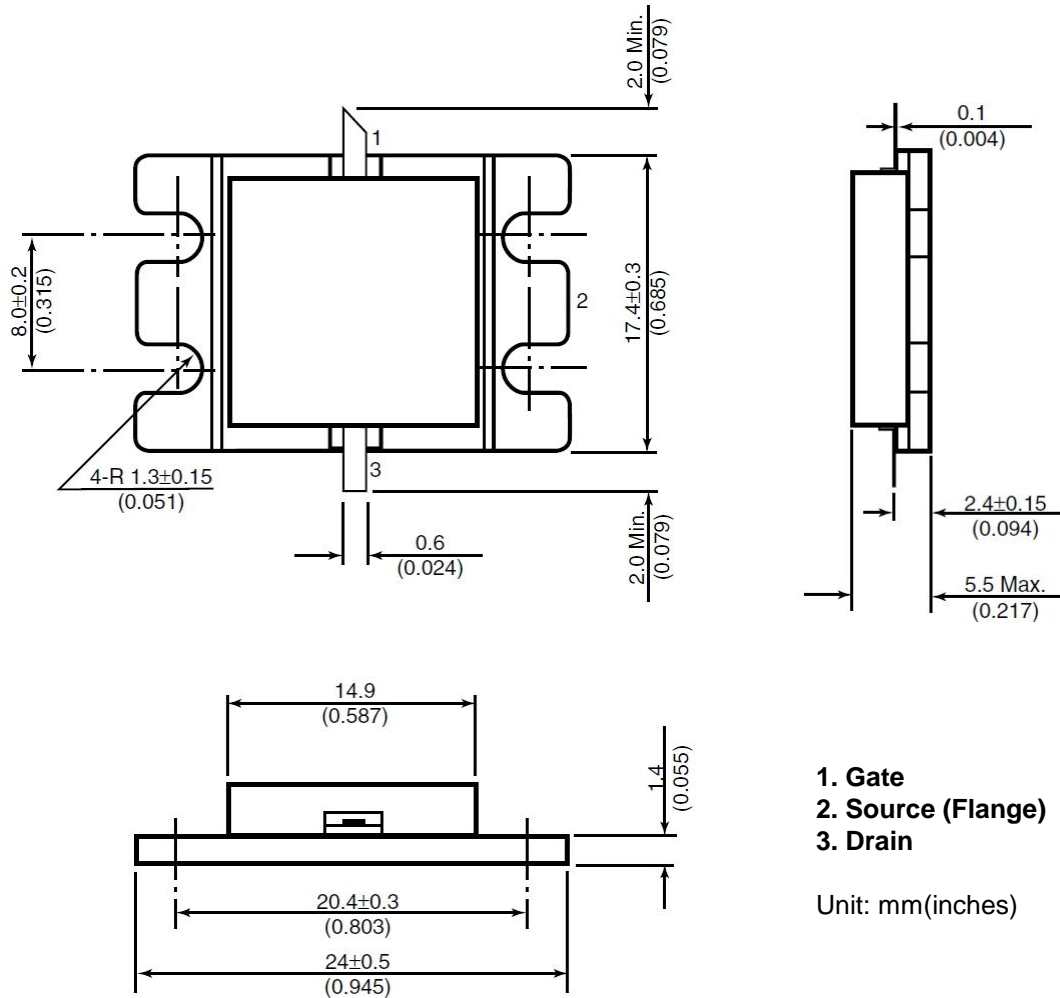
G.C.P.: Gain Compression Point

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

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

RoHS COMPLIANCE	Yes
-----------------	-----

Case Style "IK"
Metal-Ceramic Hermetic Package





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.