

# FLL400IK-2C

High Voltage - High Power GaAs FET

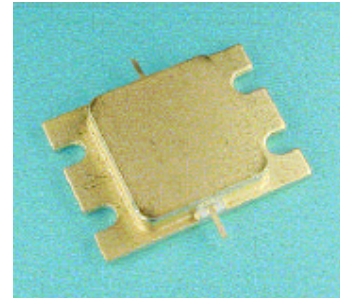
## FEATURES

- High Output Power: P1dB=46.0dBm(Typ.)
- High Gain: G1dB=13.0dB(Typ.)
- High PAE:  $\eta_{add}$ =45%(Typ.)
- Broad Band: 2.11~2.17GHz
- Hermetically Sealed Package

## DESCRIPTION

The FLL400IK-2C is a 40 Watt GaAs FET that is specially suited for use in W-CDMA base station amplifier as long term reliability.

Fujitsu's stringent Quality Assurance Program assures the highest reliability and consistent performance.



## ABSOLUTE MAXIMUM RATING (Case Temperature Tc=25°C)

Item	Symbol	Rating	Unit
Drain-Source Voltage	V <sub>DS</sub>	15	V
Gate-Source Voltage	V <sub>GS</sub>	-5	V
Total Power Dissipation	P <sub>Tot</sub>	100	W
Storage Temperature	T <sub>stg</sub>	-65 to +175	°C
Channel Temperature	T <sub>ch</sub>	175	°C

## RECOMMENDED OPERATING CONDITION (Case Temperature Tc=25°C)

Item	Symbol	Condition	Limit	Unit
DC Input Voltage	V <sub>DS</sub>		12	V
Forward Gate Current	I <sub>GF</sub>	RG=5W	<85	mA
Reverse Gate Current	I <sub>GR</sub>	RG=5W	>-25	mA
Operating channel temperature	T <sub>ch</sub>		145	°C

## ELECTRICAL CHARACTERISTICS (Case Temperature Tc=25°C)

Item	Symbol	Condition	Limit			Unit
			Min.	Typ.	Max.	
Pinch-off Voltage	V <sub>p</sub>	V <sub>DS</sub> =5V, I <sub>DS</sub> =110mA	-0.1	-0.3	-0.5	V
Gate-Source Breakdown Voltage	V <sub>GSO</sub>	I <sub>GS</sub> =-1.1mA	-5.0	-	-	V
Output Power at 1dB G.C.P.	P1dB	V <sub>DD</sub> =12V f=2.17GHz I <sub>DS</sub> (DC)=1.5A Pin=35dBm	45.0	46.0	-	dBm
Power Gain at 1dB G.C.P.	G1dB		12.0	13.0	-	dB
Drain Current	I <sub>DSR</sub>		-	6.7	8.7	A
Power-added Efficiency	$\eta_{add}$		-	45.0	-	%
Thermal Resistance	R <sub>th</sub>		-	1.3	1.5	°C/W

CASE STYLE: IK

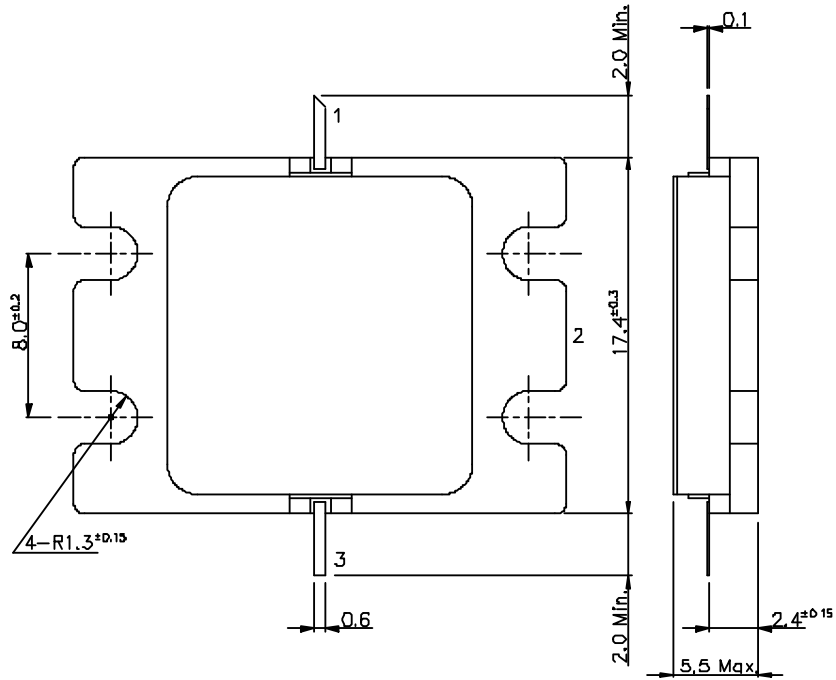
ESD	Class III	2000 V~
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Note : Based on EIAJ ED-4701 C-111A(C=100pF, R=1.5kΩ)

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## Package Out Line



PIN ASSIGNMENT  
1 : GATE  
2 : SOURCE(Flange)  
3 : DRAIN

Unit:mm

**Eudyna**

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**CAUTION**

Fujitsu Compound Semiconductor Products contain **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.