

# FLL400IK-2

## High Voltage - High Power GaAs FET

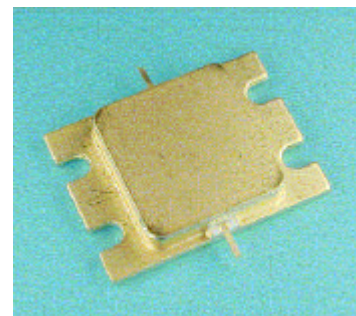
### FEATURES

- High Output Power: P1dB=46.5dBm(Typ.)
- High Gain: G1dB=12.0dB(Typ.)
- High PAE:  $\eta_{add}$ =46%(Typ.)
- Broad Band: 1.8~2.0GHz
- Hermetically Sealed Package

### DESCRIPTION

The FLL400IK-2 is a 40 Watt GaAs FET that is specially suited for use in PHS 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	VDS	15	V
Gate-Source Voltage	VGS	-5	V
Total Power Dissipation	PTot	93.7	W
Storage Temperature	Tstg	-65 to +175	°C
Channel Temperature	Tch	175	°C

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

Item	Symbol	Condition	Limit	Unit
DC Input Voltage	VDS		12	V
Forward Gate Current	IGF	RG=10W	<54.4	mA
Reverse Gate Current	IGR	RG=10W	>-17.4	mA
Operating channel temperature	Tch		145	°C

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

Item	Symbol	Condition	Limit			Unit
			Min.	Typ.	Max.	
Transconductance	gm	VDS=5V,IDS=8.0A	-	9.0	-	S
Pinch-off Voltage	Vp	VDS=5V,IDS=1.08A	-1.0	-2.0	-3.5	V
Gate-Source Breakdown Voltage	VGSO	IGS=-1.08mA	-5.0	-	-	V
Output Power at 1dB G.C.P.	P1dB	VDD=12V f=1.9GHz IDS(DC)=4A	45.5	46.5	-	dBm
Power Gain at 1dB G.C.P.	G1dB		11.5	12.0	-	dB
Drain Current	Idsr		-	7.5	8.5	A
Power-added Efficiency	$\eta_{add}$		-	46.0	-	%
Thermal Resistance	Rth		-	1.3	1.6	°C/W

ESD	Class III	2000 V~
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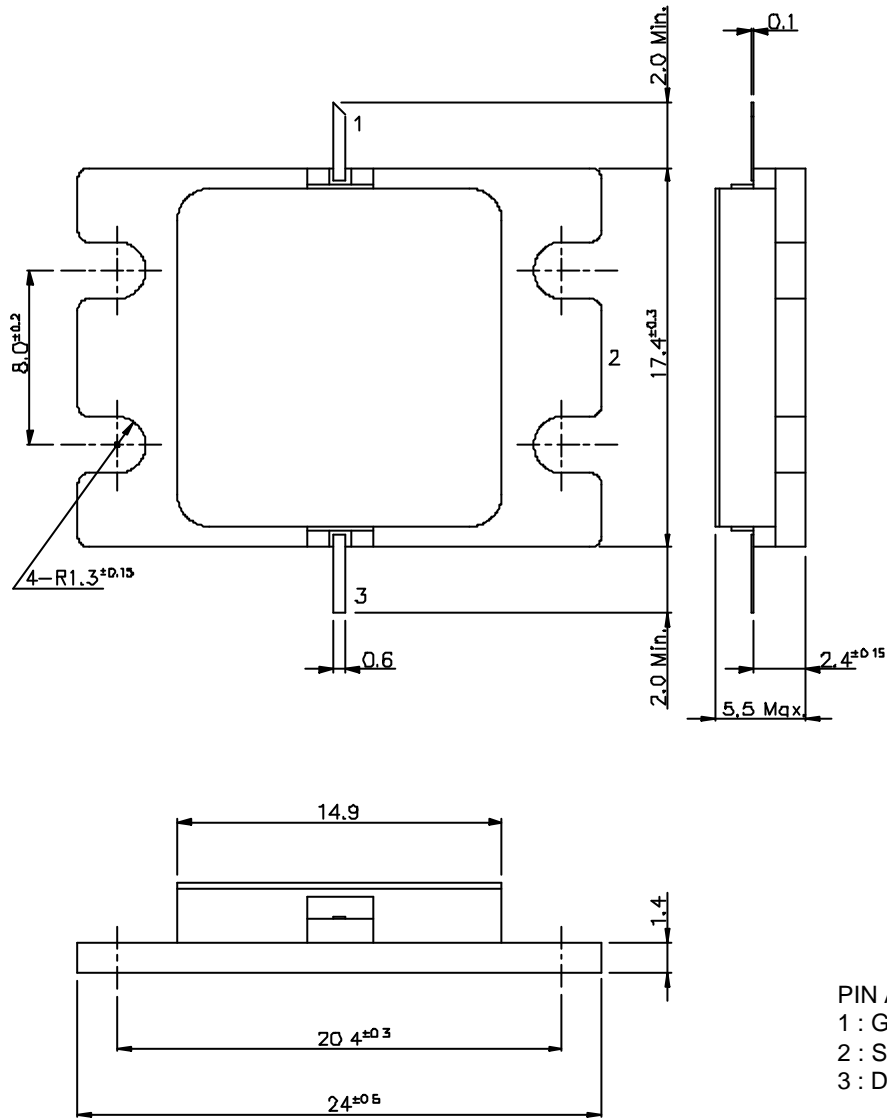
CASE STYLE: IK

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

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Package Out Line



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

Unit:mm

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# **FLL400IK-2**

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**For further information please contact :**

**Eudyna Devices USA Inc.**  
2355 Zanker Rd.  
San Jose, CA 95131-1138, U.S.A.  
Phone: (408) 232-9500  
FAX: (408) 428-9111  
www.fcsi.fujitsu.com

**Eudyna Devices Europe Ltd.**  
Network House  
Norreys Drive  
Maidenhead, Berkshire SL6 4FJ  
Phone: +44 (0) 1628 504800  
FAX: +44 (0) 1628 504888

**Eudyna Devices Asia Pte. Ltd. Hong Kong Branch**

Rm.1101,Ocean Centre, 5 Canton Road, Tsim Sha Tsui Kowloon, Hong kong  
Tel: +852-2377-0227  
Fax: +852-2377-3921

**Eudyna Devices Inc.**

1000 Kamisukiahara, showa-cho, Nakakomagun, Yamanashi  
409-3883, Japan  
(Kokubo Industrial Park)  
Tel +81-55-275-4411  
Fax +81-55-275-9461

**Sales Division**

1,Kanai-cho,Sakae-ku,Yokohama,244-0845,Japan  
Tel +81-45-853-8156  
Fax +81-45-853-8170

**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.