12G Low Noise FET in Dual mold Plastic PKG

Description :

- Super Low Noise and high Gain
- Original Dual mold Plastic package

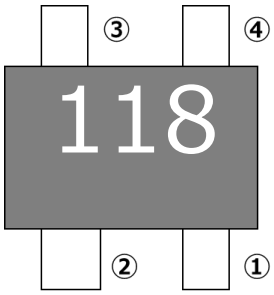
Applications :

- Ku-band LNB (Low Noise Block)

Package :

- Flat-lead 4-pin thin-type super minimold package

PIN Configuration :



PIN No.	PIN Name
1	Source
2	Drain
3	Source
4	Gate

Ordering Information :

Part Number	Order Number	Package	Marking	Supplying Form
CE7613M4	CE7613M4-C2	Flat-lead 4-pin thin-type super minimold package	118	・Embossed 8 mm wide ・Pin 1 (Source), Pin 2 (Drain) Face the perforation side of the Tape ・Qty 15Kpcs/reel

Absolute Maximum Ratings :

Parameter	Symbol	Rating	Unit
Drain to Source Voltage	VDS	4.0	V
Gate to Source Voltage	VGS	-2.4	V
Drain Current	ID	IDSS	mA
Gate Current	IG	80	μA
Total Power Dissipation	Ptot	125	mW
Channel Temperature	Tch	+150	℃
Storage Temperature	Tstg	-55 to +125	℃
Operation temperature	Top	-55 to +125	℃

Recommended Operating Range :

(TA=+25℃, unless otherwise specified)

Parameter	Symbol	MIN.	TYP.	MAX.	Unit
Drain to Source Voltage	VDS	+1	+2	+3	V
Drain Current (ID constant circuit)	ID	5	10	15	mA

Electrical Characteristics :

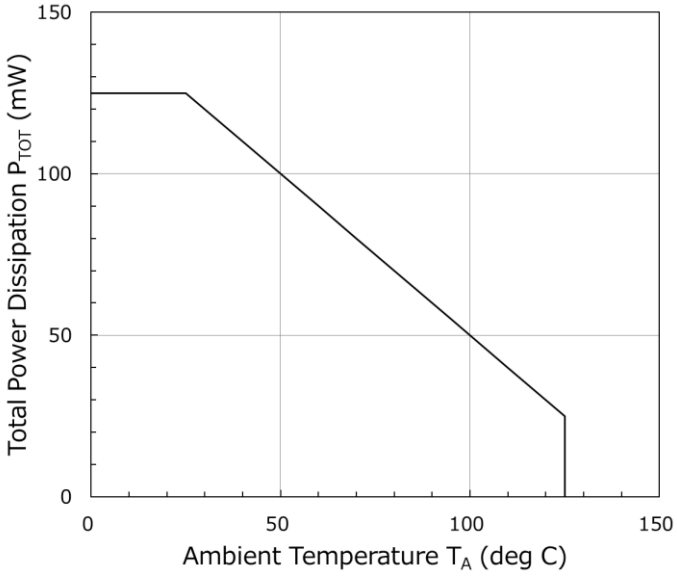
(TA=+25℃, unless otherwise specified)

Parameter	Symbol	Condition	MIN.	TYP.	MAX.	Unit
Gate to Source Leak Current	IGSO	VGS=-3.0V	-	0.30	10.0	μA
Saturated Drain Current	IDSS	VDS=2V, VGS=0V	6.3	20.0	31.9	mA
Gate to Source Cut-off Voltage	VGS(off)	VDS=2V, ID=120μA	-0.67	-0.40	-0.10	V
Trans conductance	Gm	VDS=2V, ID=10mA	51.8	73.4	-	mS
Noise Figure	NF	VDS=2V, ID=10mA, f=12GHz	-	0.35	0.53	dB
Associated Gain	Ga		12.4	14.1	-	dB

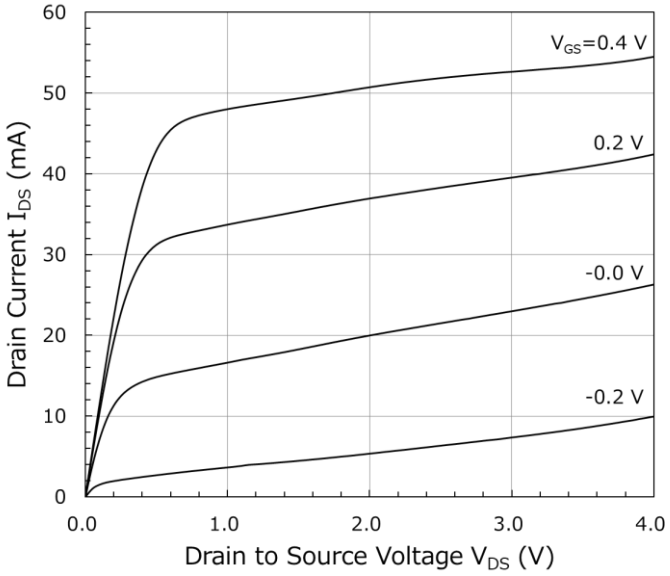
TYPICAL CHARACTERISTICS :

(TA=+25℃, unless otherwise specified)

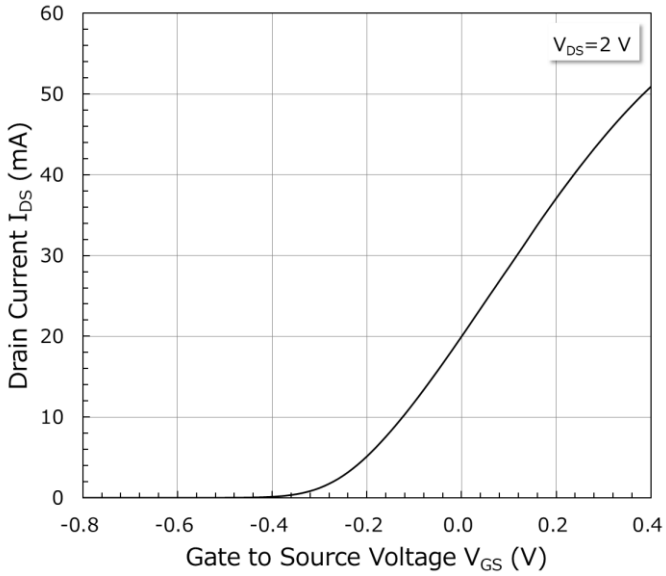
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



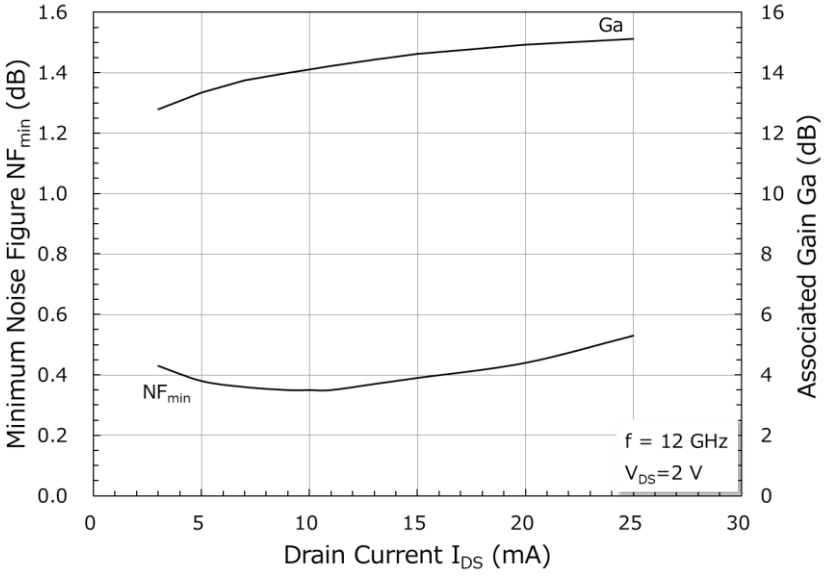
DRAIN CURRENT vs. DRAIN TO SOURCE VOLTAGE



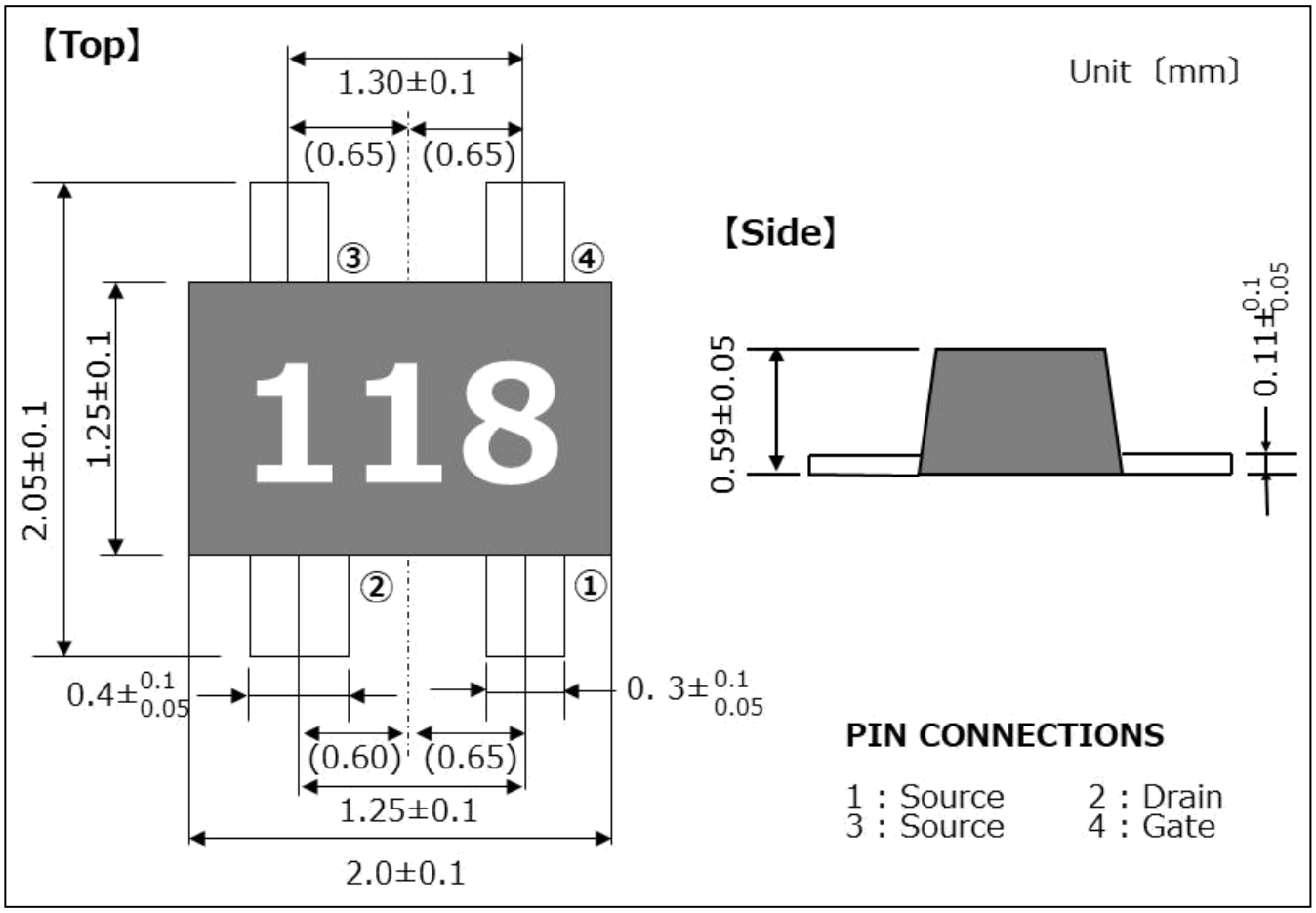
DRAIN CURRENT vs. GATE TO SOURCE VOLTAGE



MINIMUM NOISE FIGURE & ASSOCIATED GAIN vs. DRAIN CURRENT



Package Dimensions :



REVISION HISTORY

Version	Change to current version	Page(s)
CDS-0069-02 November 9, 2020	Initial datasheet	N/A

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- Do not chemically make gas or powder with this product.
- When discarding this product, please obey the laws of your country.
- Do not lick the product or in any way allow it to enter the mouth.

[CAUTION]

Although this device is designed to be as robust as possible, ESD (Electrostatic Discharge) can damage this device. This device must be protected at all times from ESD. Static charges may easily produce potentials of several kilovolts on the human body or equipment, which can discharge without detection. Industry-standard ESD precautions should be used at all times.

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