

# GN2011

## GaAs N-Channel MES IC

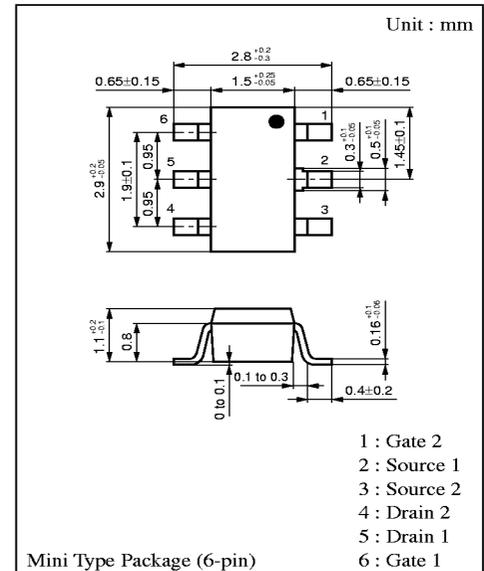
For VHF/UHF wide-band mixer

### ■ Features

- High conversion gain
- Operates in low local oscillation input

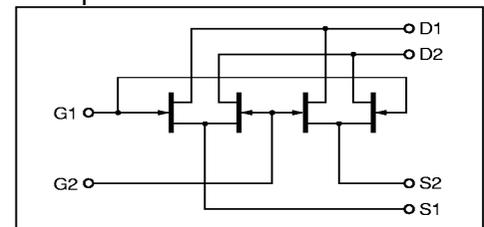
### ■ Absolute Maximum Ratings (Ta = 25 ± 2°C)

Parameter	Symbol	Rating	Unit
Drain-Source voltage	V <sub>DS</sub>	5	V
Gate-Source voltage	V <sub>GS</sub>	-4	V
Drain-Source current	I <sub>DS</sub>	60	mA
Gate current	I <sub>G</sub>	1	mA
Allowable power dissipation	P <sub>D</sub>	200	mW
Channel temperature	T <sub>ch</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C



### ■ Part Number Symbol : 4W

### ■ Equivalent Circuit



### ■ Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Drain cut-off current	I <sub>D1SX</sub>	V <sub>D1</sub> =5V, V <sub>G1</sub> =V <sub>G2</sub> =-4V, V <sub>S1</sub> =V <sub>S2</sub> =0			100	μA
	I <sub>D2SX</sub>	V <sub>D2</sub> =5V, V <sub>G1</sub> =V <sub>G2</sub> =-4V, V <sub>S1</sub> =V <sub>S2</sub> =0			100	μA
Gate cut-off current	I <sub>G1S1S</sub>	V <sub>G1</sub> =-4V, V <sub>S1</sub> =V <sub>D1</sub> =0			-50	μA
	I <sub>G1S2S</sub>	V <sub>G1</sub> =-4V, V <sub>S2</sub> =V <sub>D2</sub> =0			-50	μA
	I <sub>G2S1S</sub>	V <sub>G2</sub> =-4V, V <sub>S1</sub> =V <sub>D2</sub> =0			-50	μA
	I <sub>G2S2S</sub>	V <sub>G2</sub> =-4V, V <sub>S2</sub> =V <sub>D1</sub> =0			-50	μA
Drain current	I <sub>D1S1S</sub> *	V <sub>D1</sub> =3V, V <sub>G2</sub> =-4V, V <sub>G1</sub> =V <sub>S1</sub> =0	4	30	80	mA
	I <sub>D1S2S</sub>	V <sub>D2</sub> =3V, V <sub>G2</sub> =-4V, V <sub>G2</sub> =V <sub>S2</sub> =0	4	30	80	mA
	I <sub>D2S1S</sub>	V <sub>D2</sub> =3V, V <sub>G1</sub> =-4V, V <sub>G2</sub> =V <sub>S1</sub> =0	4	30	80	mA
	I <sub>D2S2S</sub>	V <sub>D1</sub> =3V, V <sub>G1</sub> =-4V, V <sub>G2</sub> =V <sub>S2</sub> =0	4	30	80	mA

\* I<sub>D1S1S</sub> rank classification

Rank	P	Q	R
I <sub>D1S1S</sub> (mA)	4 to 25	20 to 45	40 to 80

