

TOSHIBA**TG2202F**

TOSHIBA GaAs LINEAR INTEGRATED CIRCUIT GaAs MONOLITHIC

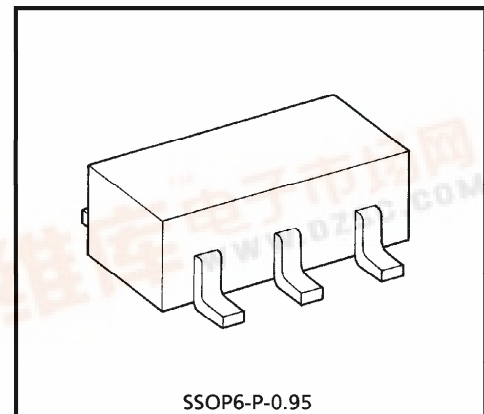
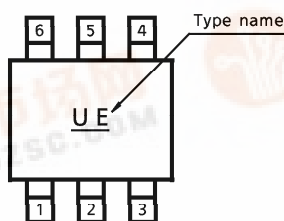
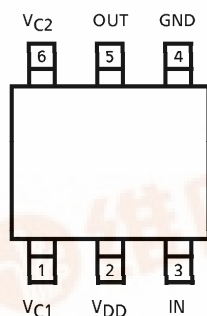
TG2202F

1.9GHz BAND ATTENUATOR (PHS DIGITAL CORDLESS TELEPHONE)

FEATURES

- ATTENUATION : ATT = 22dB (Typ.)
- CONTROL VOLTAGE : 0V / 3V

PIN CONNECTION (TOP VIEW) MARKING



Weight : 0.014g (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{DD}	5	V
Control Voltage	V _{C1}	5	V
	V _{C2}	5	V
Input Power	P _i	100	mW
Operating Temperature Range	T _{opr}	-40~85	°C
Storage Temperature Range	T _{stg}	-55~125	°C

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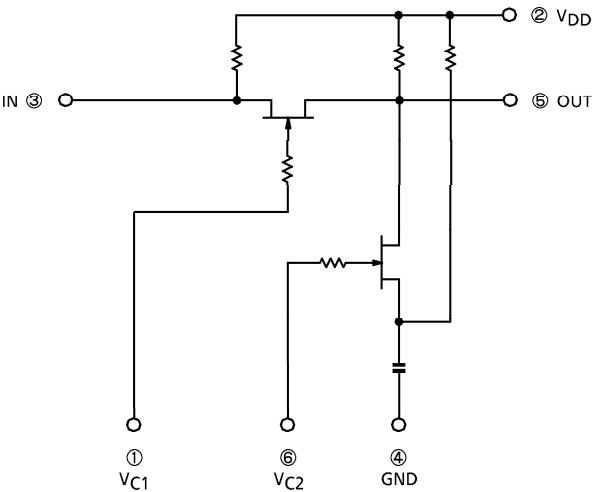
ELECTRICAL CHARACTERISTICS (V_{DD} = 3V, Ta = 25°C, Z_g = Z_l = 50Ω)

CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Frequency Range	f _{range}	—	—	1895	—	1918	MHz
Insertion Loss	L _{OSS}	1	V _{C1} = 3V, V _{C2} = 0V, P _i = 0dBmW	—	0.7	1.5	dB
Attenuation	ATT	1	V _{C1} = 0V, V _{C2} = 3V, P _i = 0dBmW	19	22	25	dB
Supply Current	I _{DD}	—	V _{C1} = 3V, V _{C2} = 0V or V _{C1} = 0V, V _{C2} = 3V	—	—	0.1	mA
Control Current	I _{C1}			—	—	0.1	mA
	I _{C2}			—	—	0.1	mA
Input VSWR	VSWR _{in}	1	V _{C1} = 3V, V _{C2} = 0V, P _i = 0dBmW	—	1.4	2.0	—
Output VSWR	VSWR _{out}			—	1.4	2.0	—
Output Power at 1dB Gain Compression	P _{o1dB}			—	10	—	dBm W

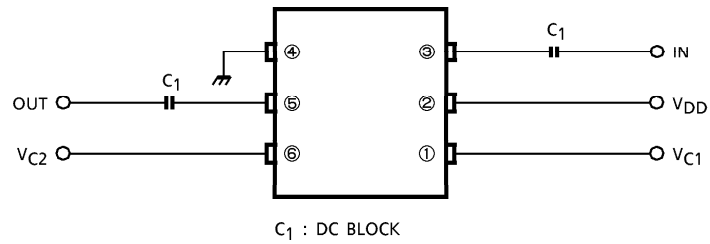
TRUTH TABLE

CONTROL VOLTAGE		ATTENUATOR CONDITION
V _{C1}	V _{C2}	IN-OUT
3V	0V	ATTENUATE OFF
0V	3V	ATTENUATE ON

EQUIVALENT CIRCUIT



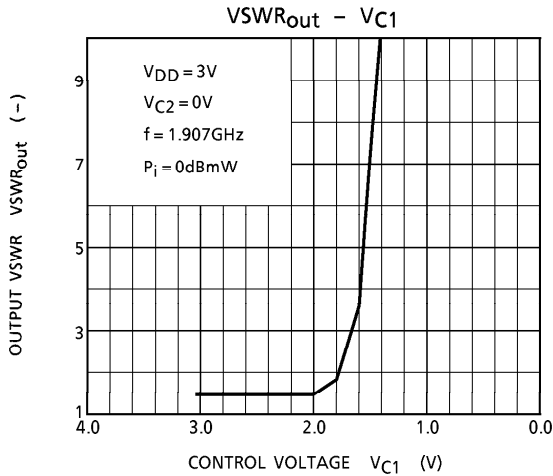
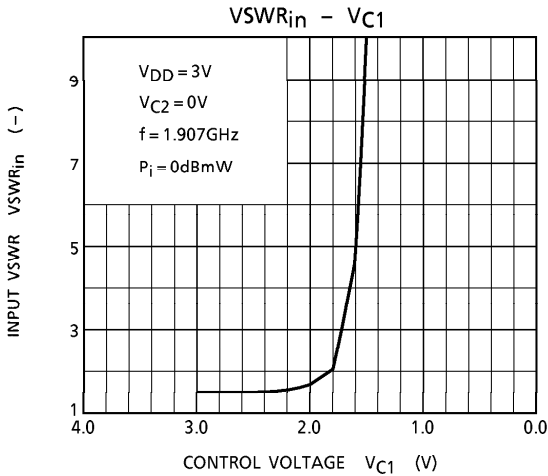
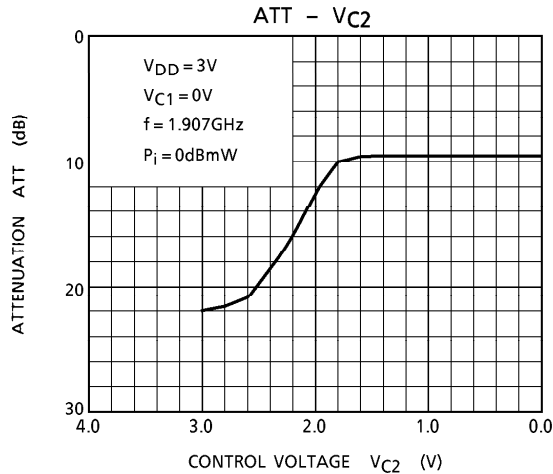
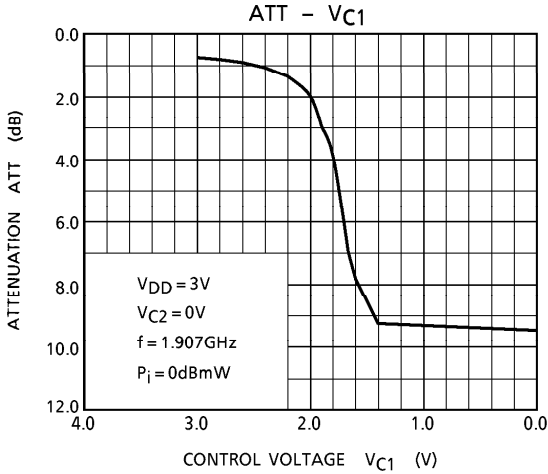
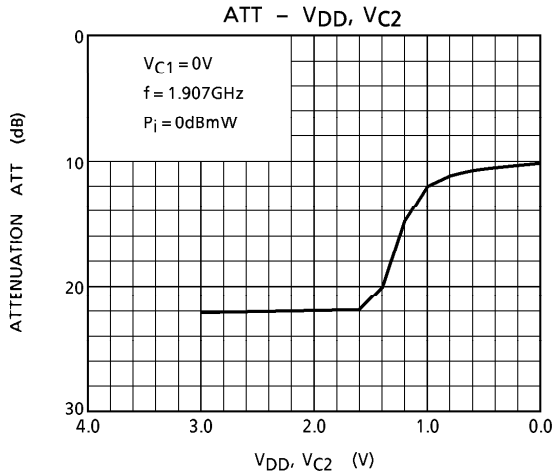
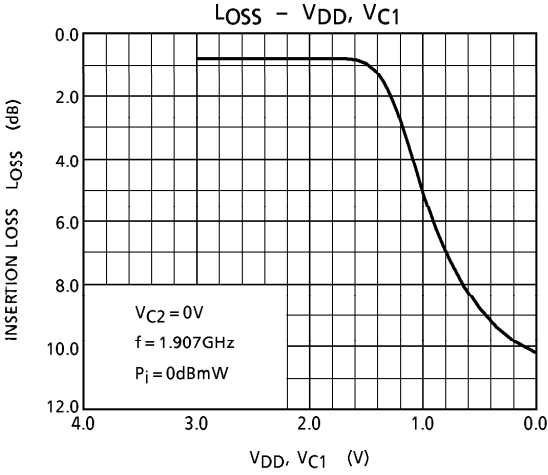
TEST CIRCUIT 1

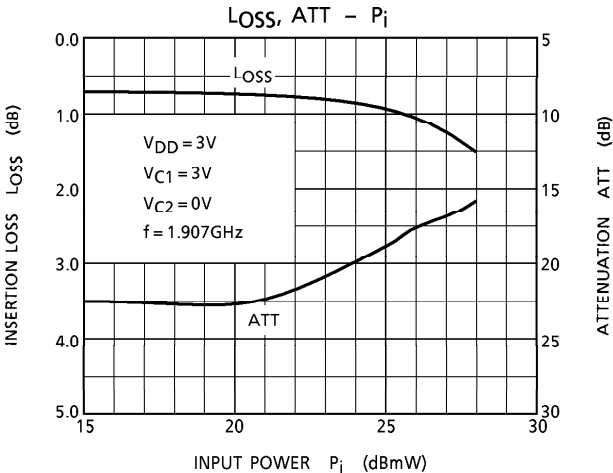
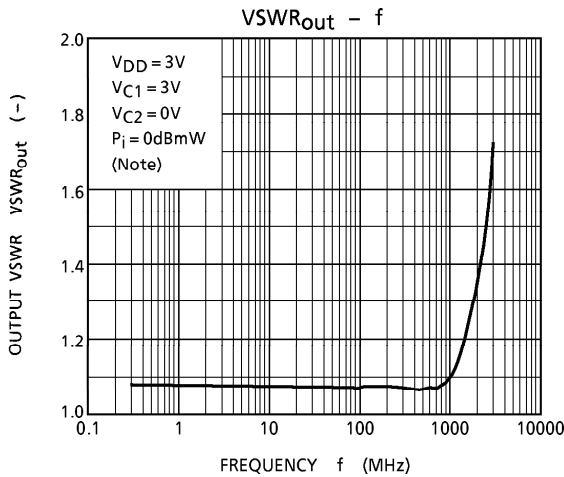
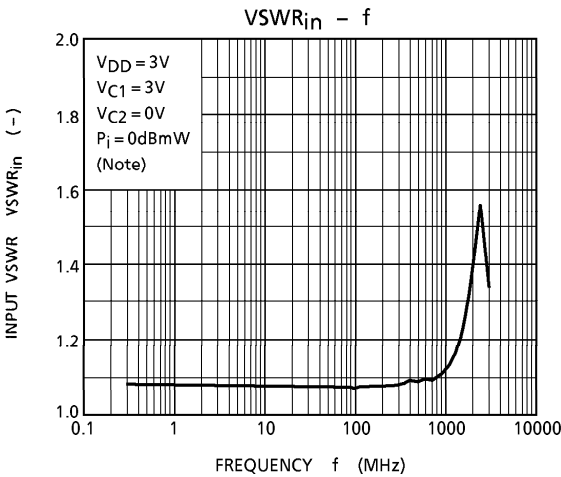
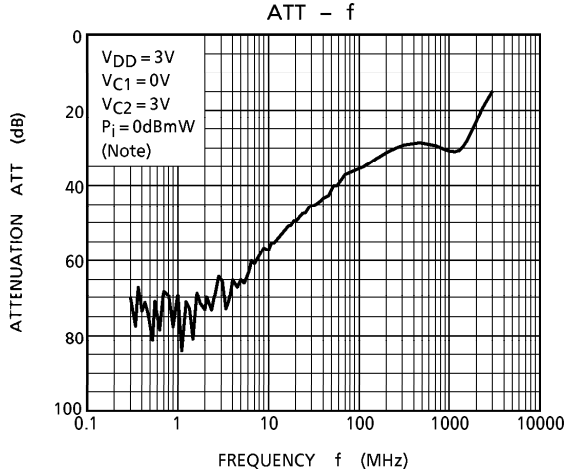
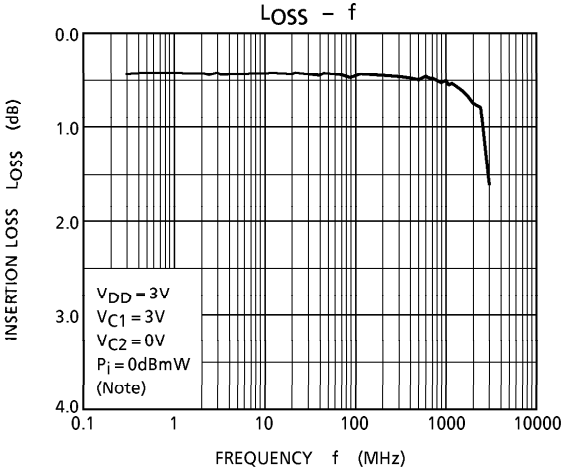


(Note) V_{C1} , V_{C2} and V_{DD} are connected to GND by capacitor (9pF) in order to measure dependence on frequency of L_{OSS} and ATT.

CAUTION

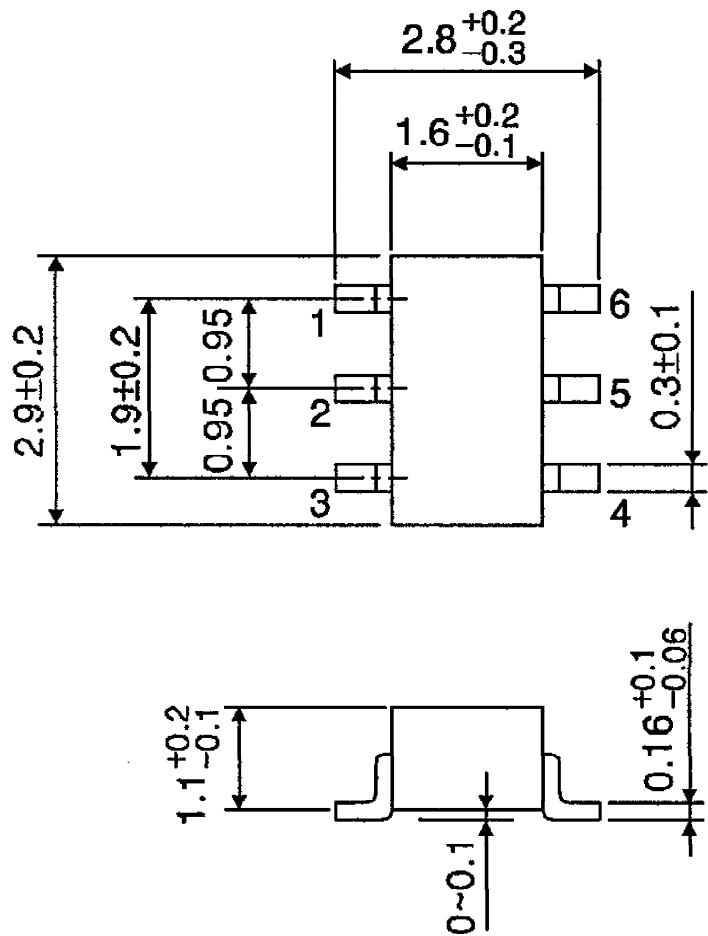
This device is electrostatic sensitivity. Please handle with caution.





OUTLINE DRAWING
SSOP6-P-0.95

Unit : mm



Weight : 0.014g (Typ.)