

TOSHIBA GaAs LINEAR INTEGRATED CIRCUIT GaAs MONOLITHIC

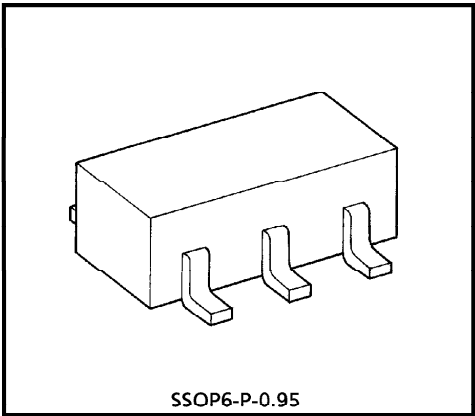
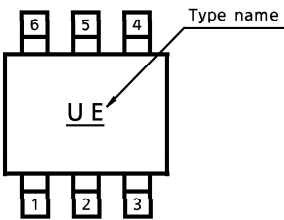
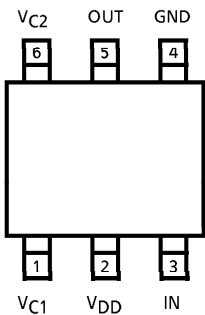
TG2202F

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

961001EBC1

- TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
- Gallium arsenide (GaAs) is a substance used in the products described in this document. GaAs dust and fumes are toxic. Do not break, cut or pulverize the product, or use chemicals to dissolve them. When disposing of the products, follow the appropriate regulations. Do not dispose of the products with other industrial waste or with domestic garbage.
- The products described in this document are subject to foreign exchange and foreign trade control laws.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

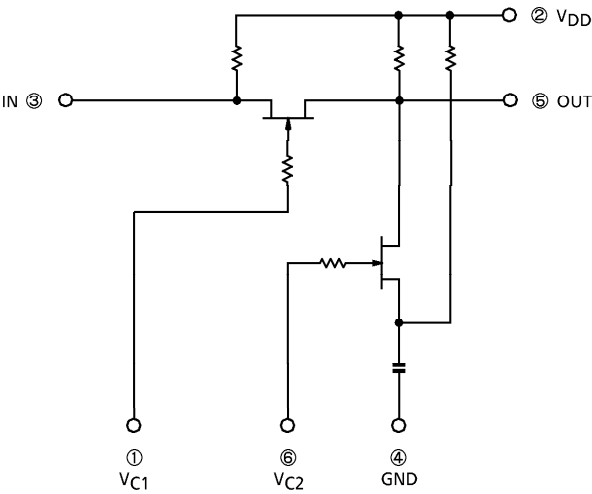
ELECTRICAL CHARACTERISTICS ($V_{DD} = 3V$, $T_a = 25^{\circ}C$, $Z_g = Z_l = 50\Omega$)

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

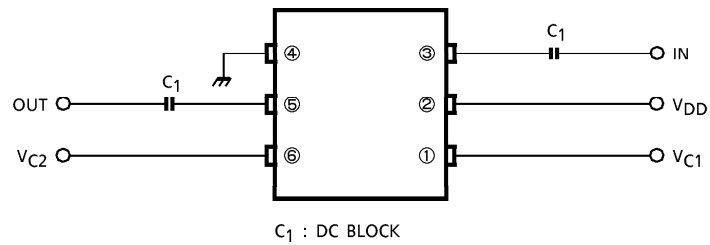
TRUTH TABLE

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

EQUIVALENT CIRCUIT



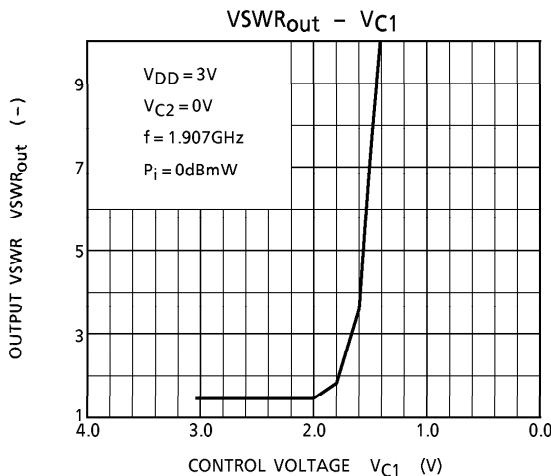
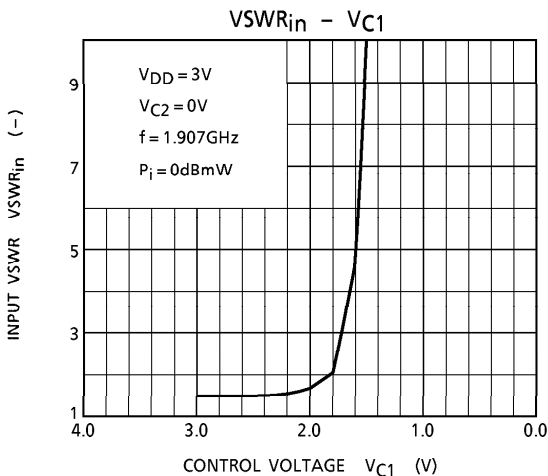
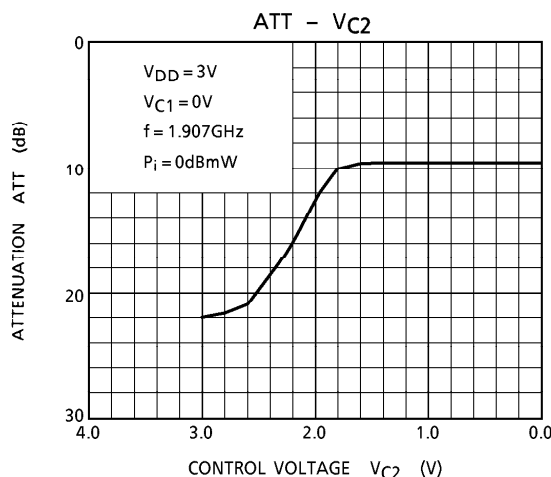
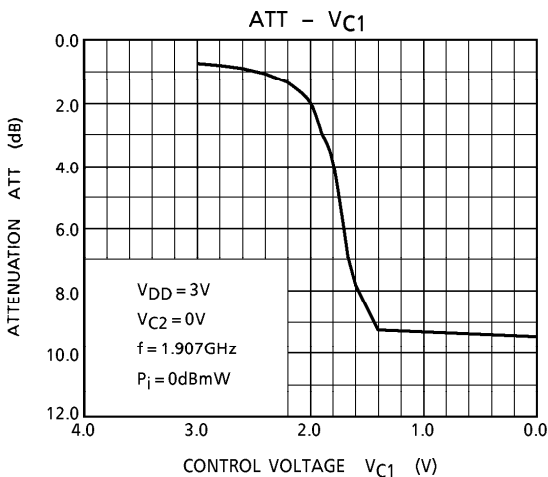
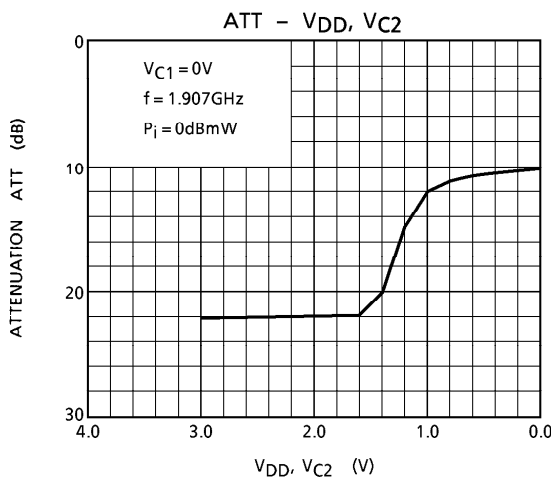
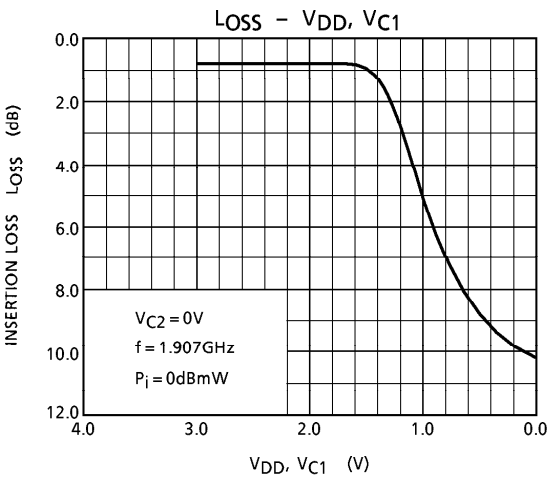
TEST CIRCUIT 1

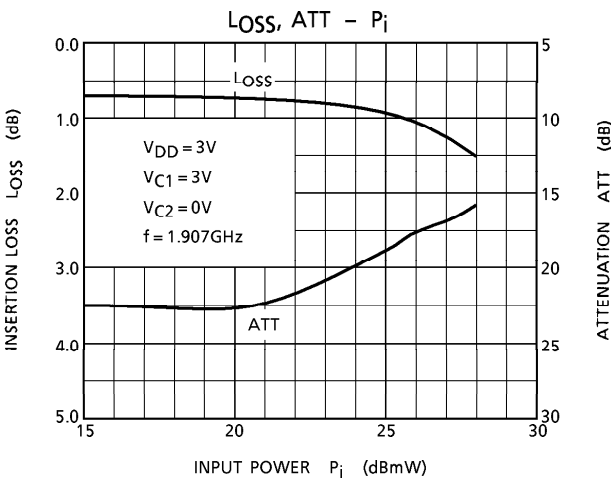
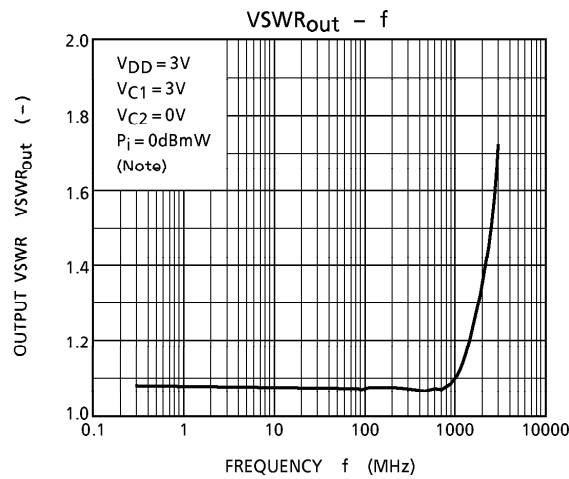
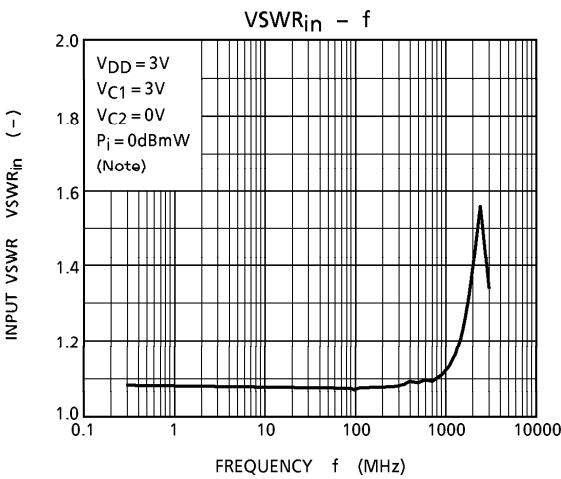
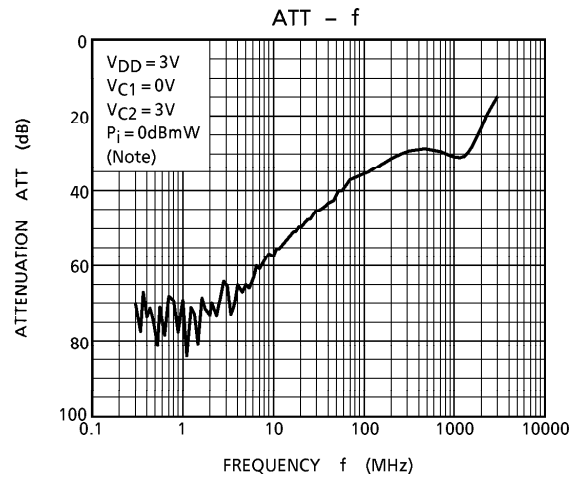
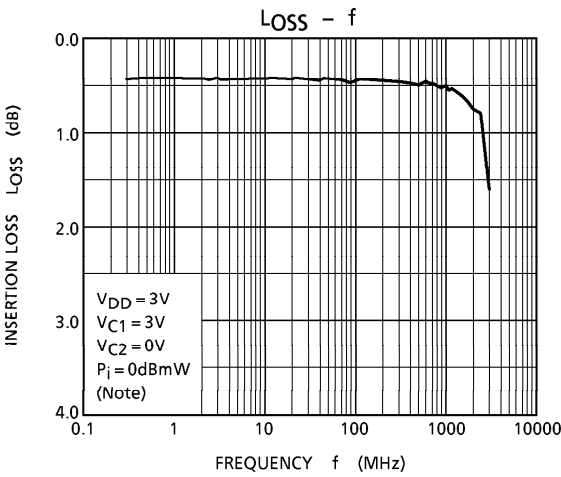


(Note) V_{C1} , V_{C2} and V_{DD} are connected to GND by capacitor (9pF) in order to measure dependence on frequency of L_{OSS} and ATT.

CAUTION

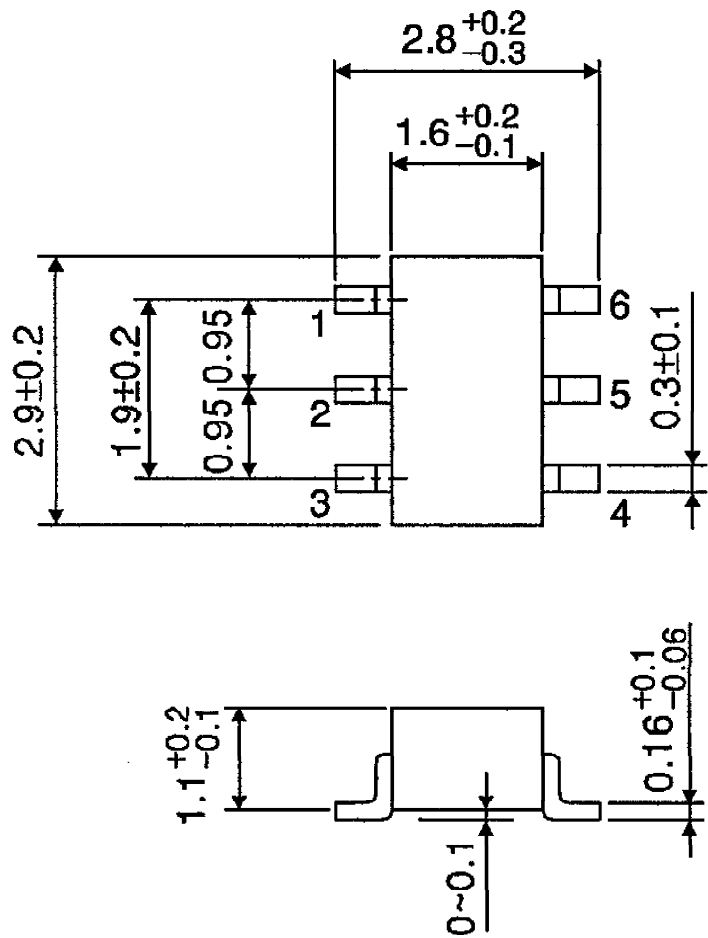
This device is electrostatic sensitivity. Please handle with caution.





OUTLINE DRAWING
SSOP6-P-0.95

Unit : mm



Weight : 0.014g (Typ.)



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.