

TOSHIBA GaAs LINEAR INTEGRATED CIRCUIT GaAs MONOLITHIC

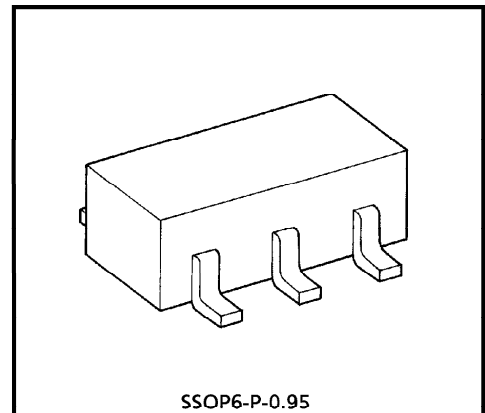
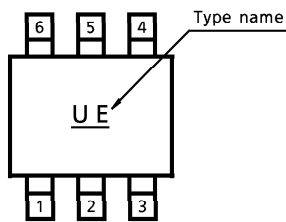
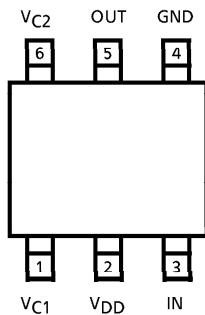
TG2202F

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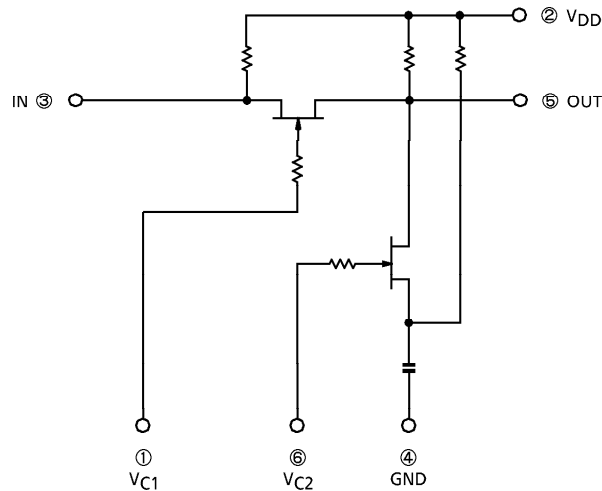
ELECTRICAL CHARACTERISTICS ($V_{DD} = 3V$, $T_a = 25^\circ C$, $Z_g = Z_l = 50\Omega$)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Frequency Range	f_{range}	—	—	1895	—	1918	MHz
Insertion Loss	L_{LOSS}	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

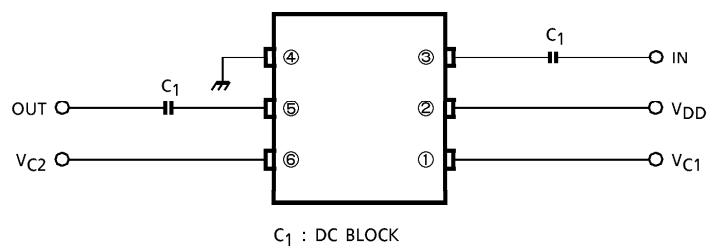
TRUTH TABLE

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.

