

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL PLANAR TYPE

2SC3862

TV TUNER, UHF MIXER APPLICATIONS

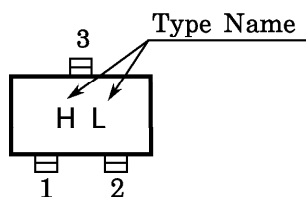
VHF~UHF BAND RF AMPLIFIER APPLICATIONS

- Exchange of Emitter for Base in 2SC3120

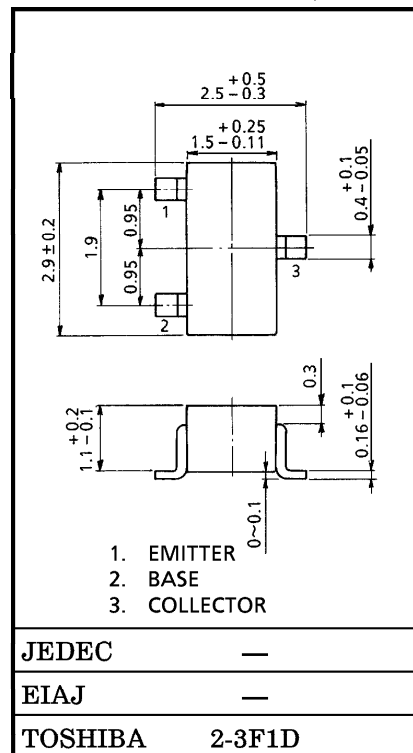
MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	30	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	3	V
Collector Current	I_C	50	mA
Base Current	I_B	25	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55\sim 125$	$^\circ\text{C}$

Marking



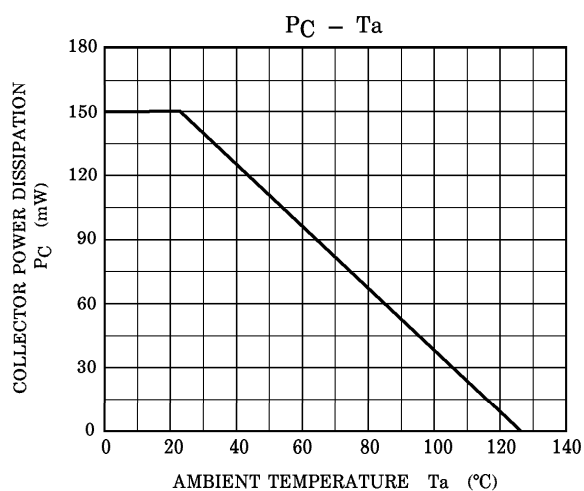
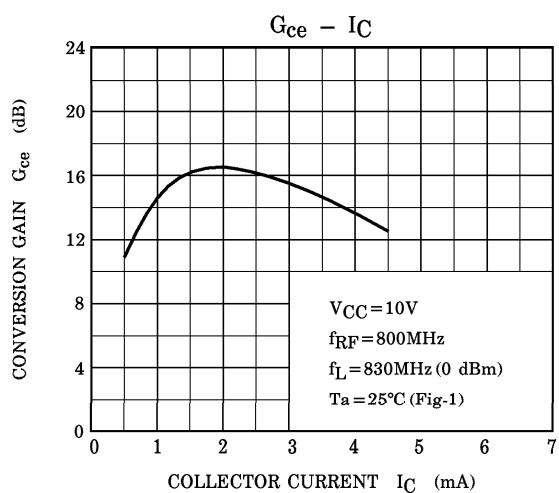
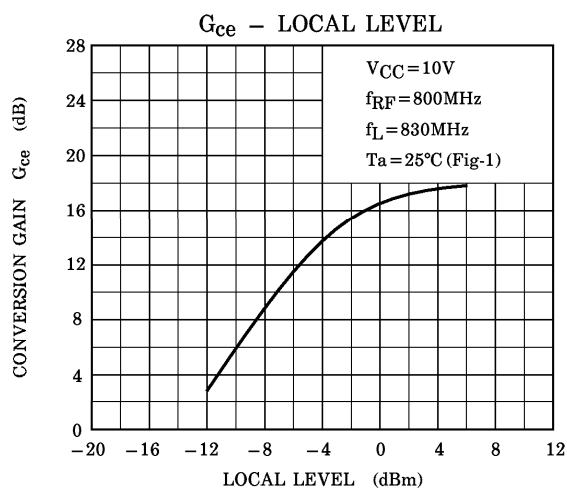
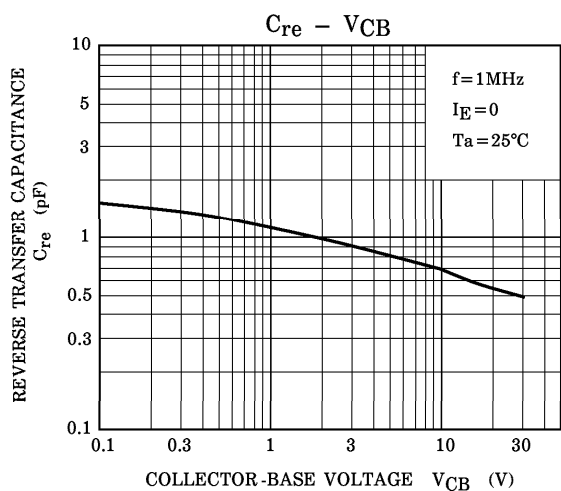
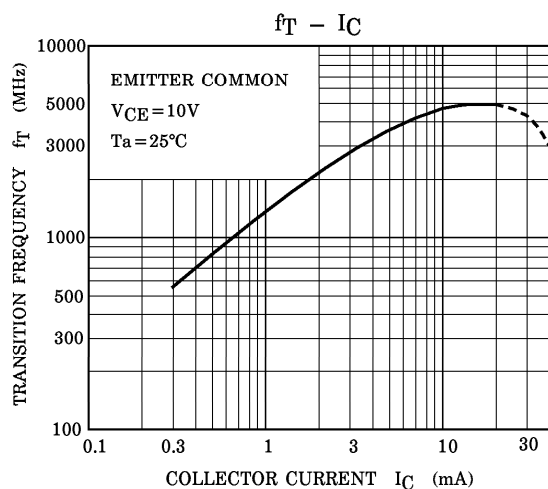
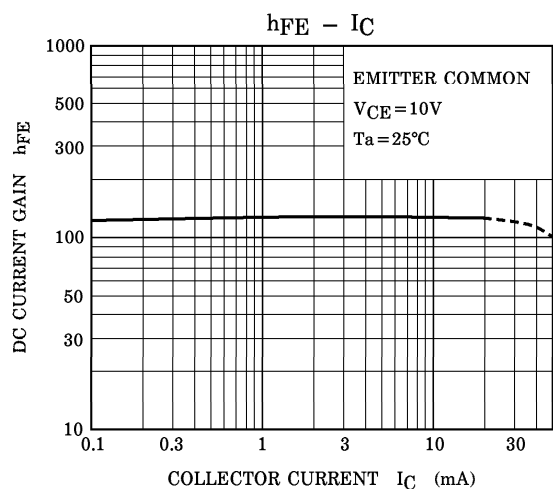
Unit in mm



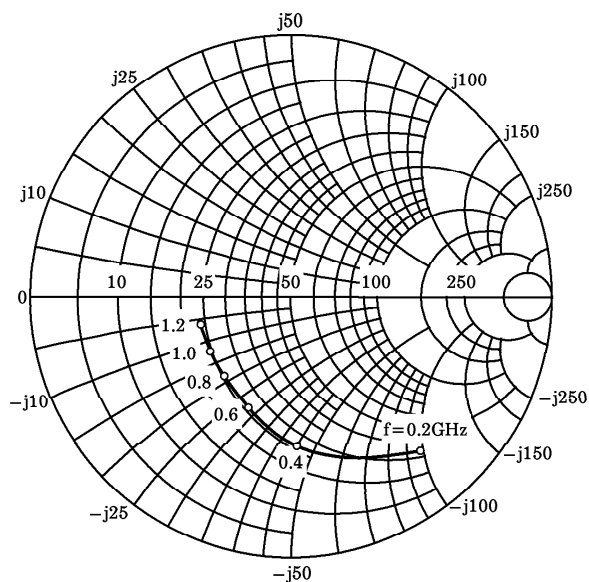
Weight : 0.012g

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

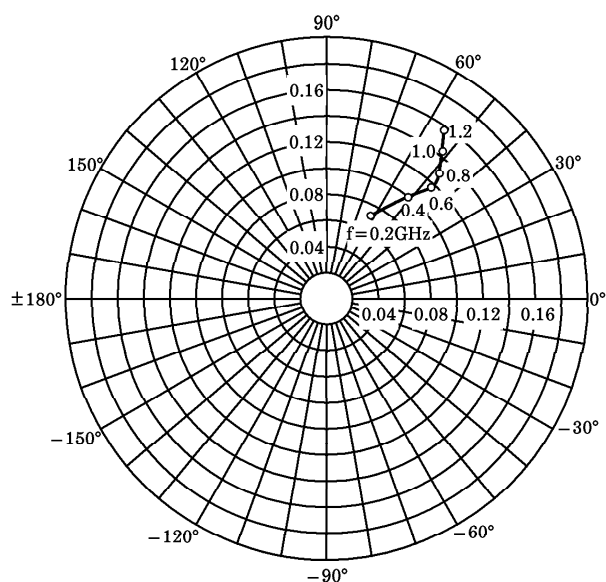
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=2\text{V}, I_C=0$	—	—	1.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	15	—	—	V
DC Current Gain	h_{FE}	$V_{CE}=10\text{V}, I_C=5\text{mA}$	40	100	200	V
Reverse Transfer Capacitance	C_{re}	$V_{CB}=10\text{V}, I_E=0\text{V}, f=1\text{MHz}$	—	0.6	0.9	pF
Transition Frequency	f_T	$V_{CE}=10\text{V}, I_C=2\text{mA}$	1500	2400	—	MHz



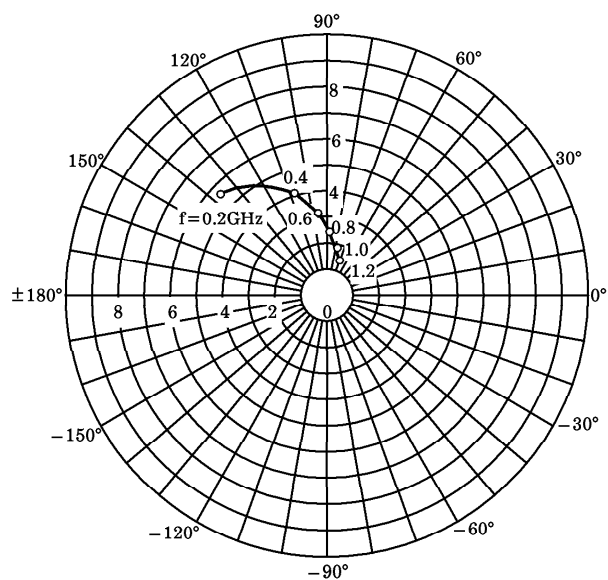
S_{11e}
 $V_{CE} = 10V$
 $I_C = 2mA$
 $T_a = 25^\circ C$
 (UNIT : Ω)



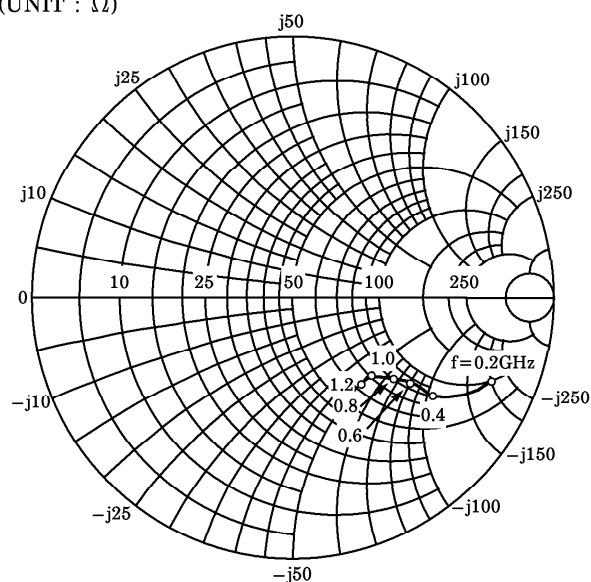
S_{12e}
 $V_{CE} = 10V$
 $I_C = 2mA$
 $T_a = 25^\circ C$



S_{21e}
 $V_{CE} = 10V$
 $I_C = 2mA$
 $T_a = 25^\circ C$



S_{22e}
 $V_{CE} = 10V$
 $I_C = 2mA$
 $T_a = 25^\circ C$
 (UNIT : Ω)



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