**TOSHIBA** 2SC3862

# TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL PLANAR TYPE

# 2 S C 3 8 6 2

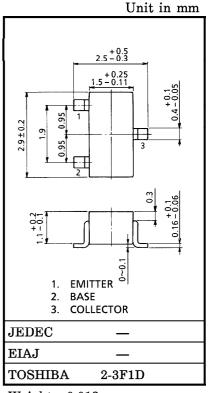
TV TUNER, UHF MIXER APPLICATIONS

VHF~UHF BAND RF AMPLIFIER APPLICATIONS

Exchange of Emitter for Base in 2SC3120

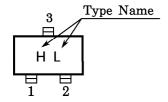
### MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	30	V
Collector-Emitter Voltage	$V_{CEO}$	15	V
Emitter-Base Voltage	$V_{EBO}$	3	V
Collector Current	IC	50	mA
Base Current	$I_{\mathbf{B}}$	25	mA
Collector Power Dissipation	PC	150	mW
Junction Temperature	Tj	125	°C
Storage Temperature Range	$T_{ m stg}$	-55~125	$^{\circ}\mathrm{C}$



Weight: 0.012g

# Marking



#### ELECTRICAL CHARACTERISTICS (Ta = 25°C)

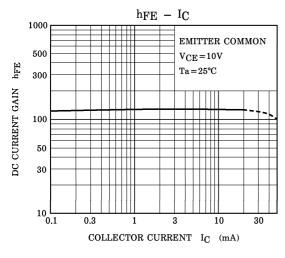
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CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 30V, I_{E} = 0$	_	_	0.1	$\mu$ A
Emitter Cut-off Current	$I_{\mathrm{EBO}}$	$V_{EB}=2V, I_{C}=0$	_	_	1.0	$\mu$ A
Collector-Emitter Breakdown	V (DD)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

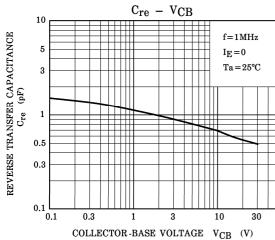
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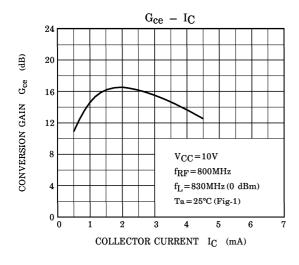
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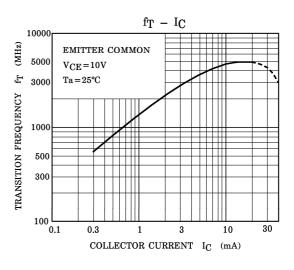
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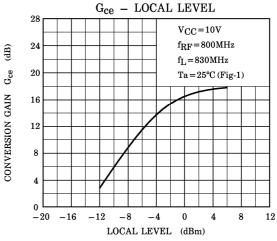
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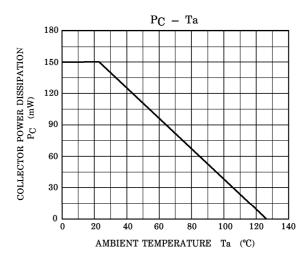






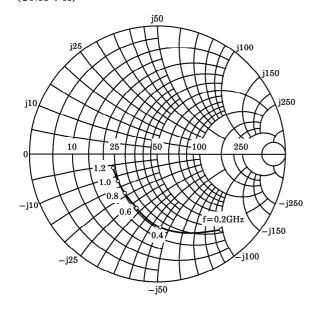


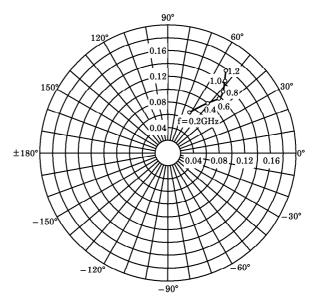




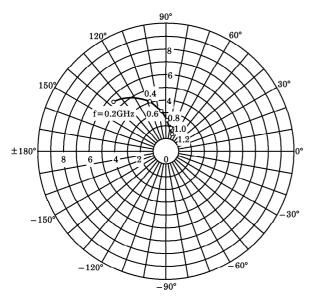
 $\begin{array}{l} S_{11e} \\ V_{CE} = 10V \\ I_{C} = 2mA \\ Ta = 25^{\circ}C \\ (UNIT:\Omega) \end{array}$ 

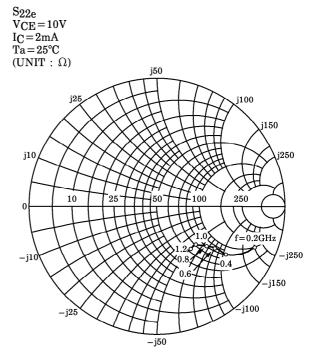
 $\begin{array}{c} S_{12e} \\ V_{CE} = 10V \\ I_{C} = 2mA \\ Ta = 25^{\circ}C \end{array}$ 





 $\begin{array}{l} S_{21e} \\ V_{CE} = 10V \\ I_{C} = 2mA \\ Ta = 25^{\circ}C \end{array}$ 





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