

TOSHIBA**2SC3121**

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL PLANAR TYPE

2SC3121

TV TUNER, UHF OSCILLATOR APPLICATIONS (COMMON BASE)

TV TUNER, UHF CONVERTER APPLICATIONS (COMMON BASE)

Unit in mm

- High Transition Frequency : $f_T=1500\text{MHz}$ (Typ.)
- Excellent Linearity

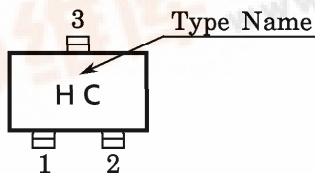
MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

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	25	mA
Base Current	I_B	50	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55\sim 125$	$^\circ\text{C}$

JEDEC		—
EIAJ	SC-59	
TOSHIBA	2-3F1A	

Weight : 0.012g

Marking

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=15\text{V}, I_E=0$	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$	—	—	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}	$V_{CE}=3\text{V}, I_C=8\text{mA}$	60	150	320	
Transition Frequency	f_T	$V_{CE}=10\text{V}, I_C=8\text{mA}$	1100	1500	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0\text{mA}, f=1\text{MHz}$	—	0.9	1.3	pF
Collector-Base Time Constant	$C_{c,rbb'}$	$V_{CB}=10\text{V}, I_C=8\text{mA}, f=30\text{MHz}$	—	7	12	ps

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