

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL PLANAR TYPE

2SC4253

TV FINAL PICTURE IF AMPLIFIER APPLICATIONS

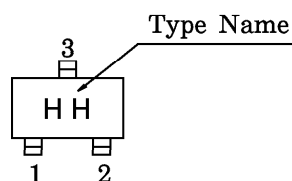
Unit in mm

- Good Linearity of f_T

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	50	mA
Base Current	I_B	25	mA
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim 125$	$^\circ\text{C}$

Marking



1. BASE	
2. EMITTER	
3. COLLECTOR	
JEDEC	—
EIAJ	SC-70
TOSHIBA	2-2E1A

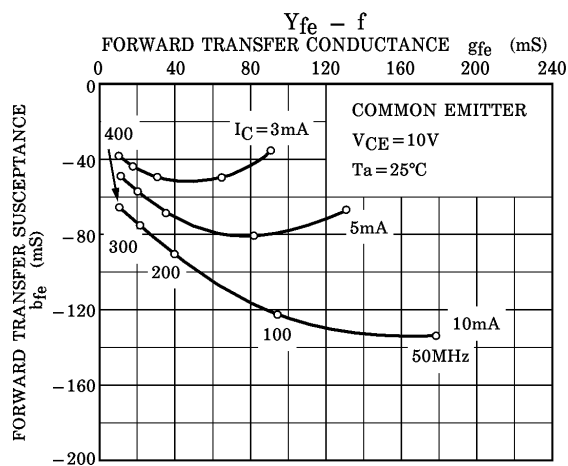
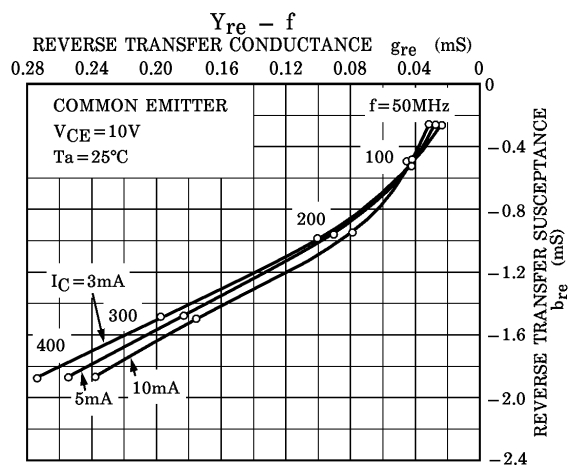
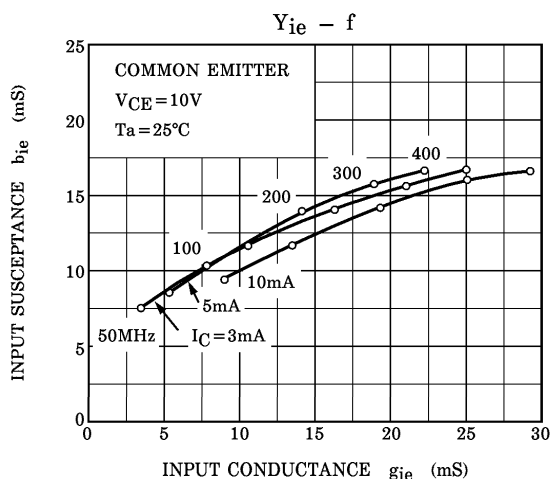
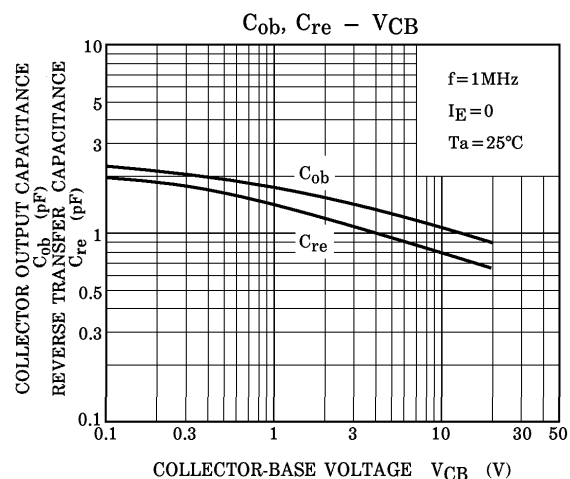
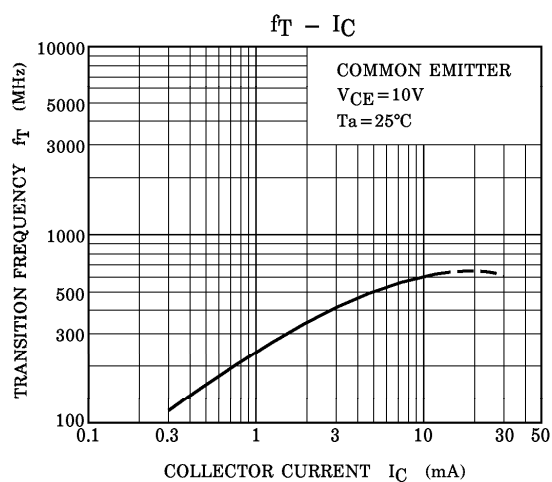
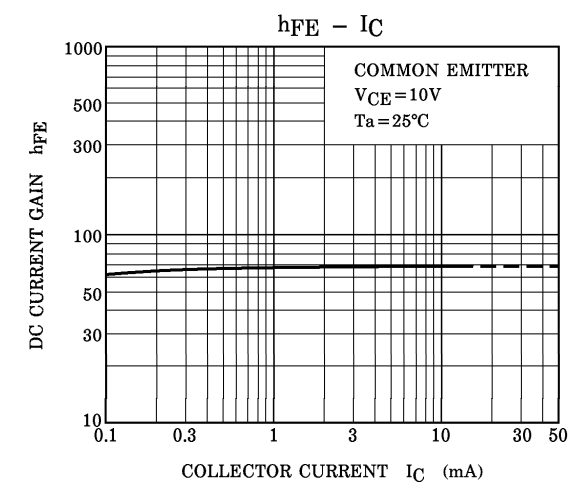
Weight : 0.006g

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}	$V_{EB} = 3\text{V}, I_C = 0$	—	—	0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR) CEO}$	$I_C = 1\text{mA}, I_B = 0$	25	—	—	V
DC Current Gain	h_{FE}	$V_{CE} = 10\text{V}, I_C = 10\text{mA}$	20	70	200	—
Saturation Voltage	Collector-Emitter	$I_C = 15\text{mA}, I_B = 1.5\text{mA}$	—	—	0.2	V
	Base-Emitter		—	—	1.5	
Collector Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	—	1.1	1.6	pF
Collector-Base Time Constant	$C_{c,rb b'}$	$V_{CB} = 10\text{V}, I_C = 1\text{mA}, f = 30\text{MHz}$	—	—	25	ps
Transition Frequency	f_T	$V_{CE} = 10\text{V}, I_C = 10\text{mA}$	250	600	—	MHz

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