TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE

2SC4707

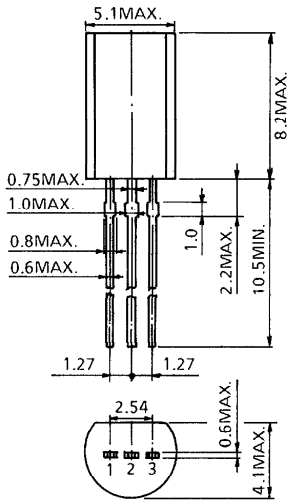
LOW FREQUENCY AMPLIFIER APPLICATIONS.

DRIVER STAGE AMPLIFIER APPLICATIONS.

SWITCHING APPLICATIONS.

- Excellent h_{FE} Linearity
  : $h_{FE\,(2)}$=35 (Min.), (V_{CE}=2V, I_C=300mA)
- Complementary to 2SA1811

Unit in mm



1. EMITTER
2. COLLECTOR
3. BASE

JEDEC	TO-92MOD
EIAJ	—
TOSHIBA	2-5J1A

Weight : 0.36g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	35	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Base Current	I_B	100	mA
Collector Power Dissipation	P_C	800	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=35V, I_E=0	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0	—	—	0.1	μA
DC Current Gain	$h_{FE\,(1)}$	V_{CE}=2V, I_C=100mA	100	—	300	
	$h_{FE\,(2)}$	V_{CE}=2V, I_C=300mA	35	—	—	
Collector-Emitter Saturation Voltage	$V_{CE\,(sat)}$	I_C=300mA, I_B=30mA	—	0.2	0.5	V
Base-Emitter Voltage	V_{BE}	V_{CE}=2V, I_C=100mA	—	0.8	1.0	V
Transition Frequency	f_T	V_{CE}=6V, I_C=20mA	—	300	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=6V, I_E=0, f=1MHz	—	7	—	pF

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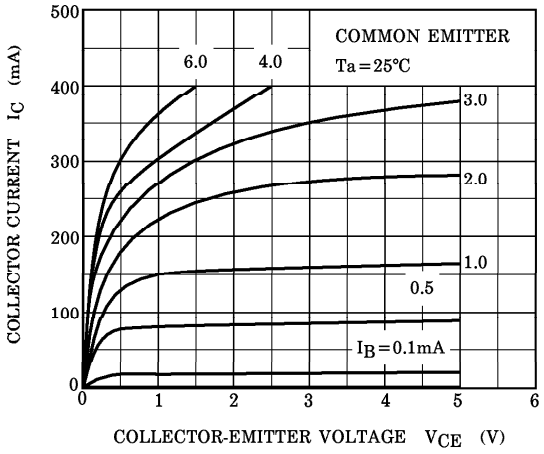
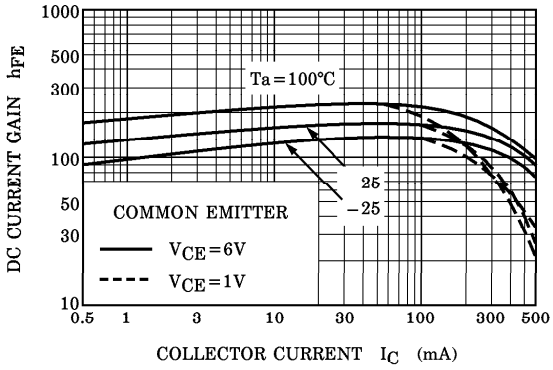
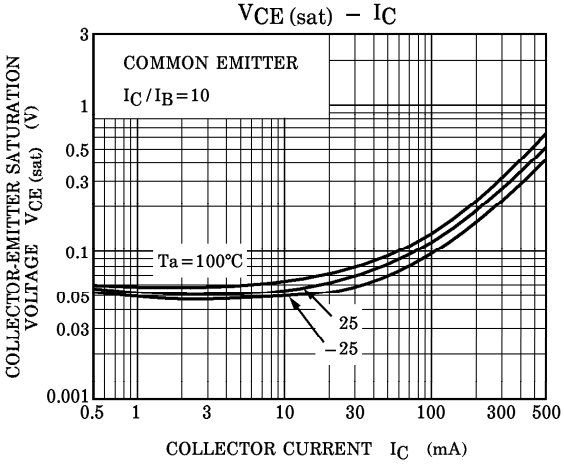
I_C – V_{CE}



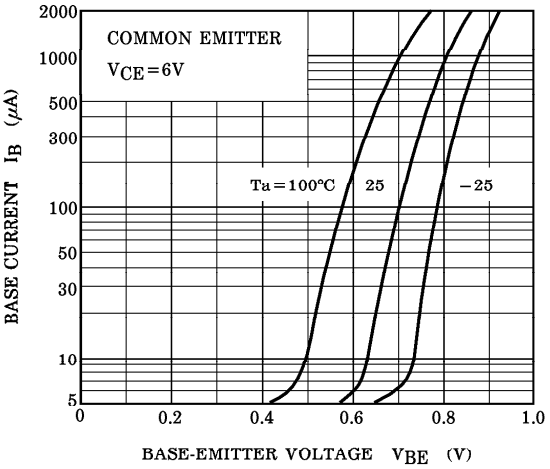
h_{FE} – I_C



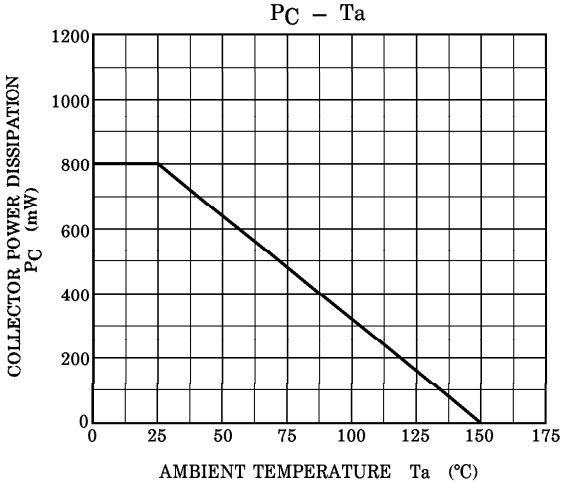
$V_{CE\,(sat)}$ – I_C



I_B – V_{BE}



P_C – Ta



SAFE OPERATING AREA