TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE

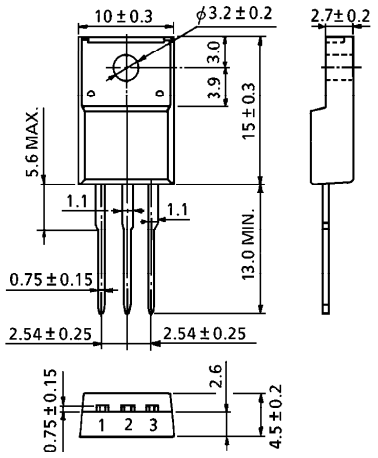
2SA1930

POWER AMPLIFIER APPLICATIONS

DRIVER STAGE AMPLIFIER APPLICATIONS

- High Transition Frequency : f_T = 200MHz (Typ.)
- Complementary to 2SC5171

Unit in mm



1. BASE
2. COLLECTOR
3. EMITTER

JEDEC	—
EIAJ	—
TOSHIBA	2-10R1A

Weight : 1.7g (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	−180	V
Collector-Emitter Voltage		V_{CEO}	−180	V
Emitter-Base Voltage		V_{EBO}	−5	V
Collector Current		I_C	−2	A
Base Current		I_B	−1	A
Collector Power Dissipation	Ta = 25°C	P_C	2.0	W
	Tc = 25°C		20	
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} = −180V, I_E = 0	—	—	−5.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = −5V, I_C = 0	—	—	−5.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = −10mA, I_B = 0	−180	—	—	V
DC Current Gain	$h_{FE(1)}$	V_{CE} = −5V, I_C = −0.1A	100	—	320	
	$h_{FE(2)}$	V_{CE} = −5V, I_C = −1A	50	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = −1A, I_B = −0.1A	—	−0.24	−1.0	V
Base-Emitter Voltage	V_{BE}	V_{CE} = −5V, I_C = −1A	—	−0.68	−1.5	V
Transition Frequency	f_T	V_{CE} = −5V, I_C = −0.3A	—	200	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = −10V, I_E = 0, f = 1MHz	—	26	—	pF

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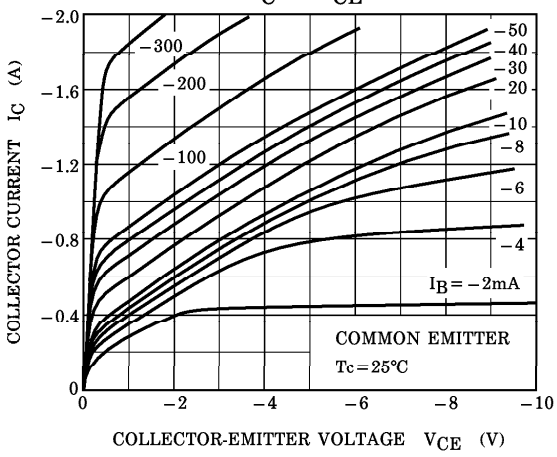
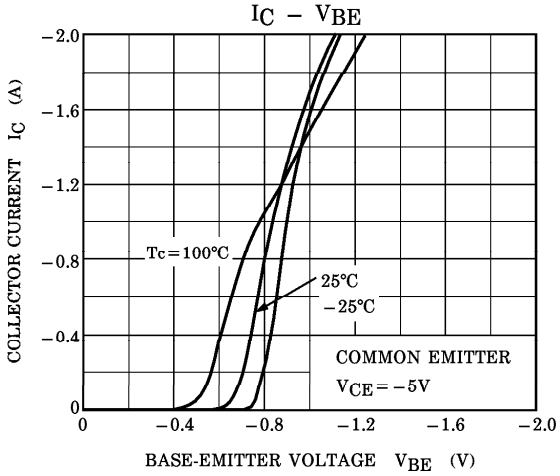
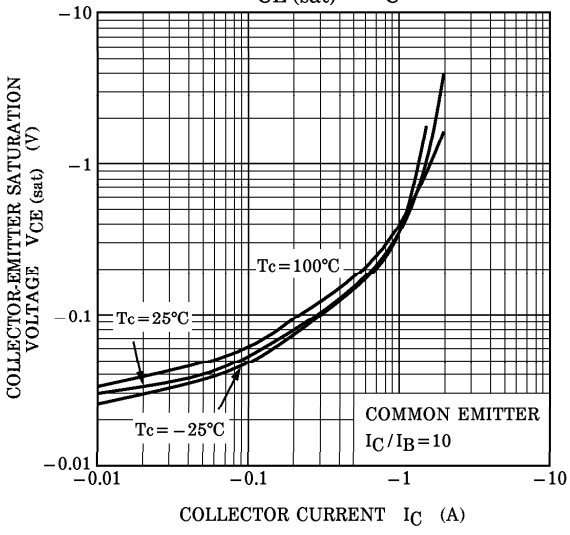
I_C – V_{CE}



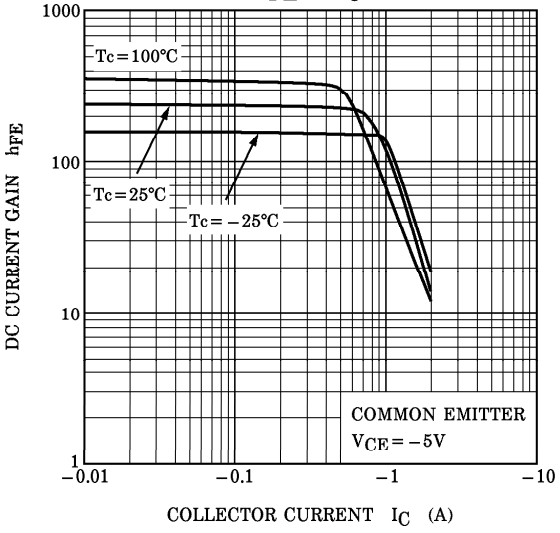
I_C – V_{BE}



$V_{CE\,(sat)}$ – I_C



h_{FE} – I_C



SAFE OPERATING AREA