TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

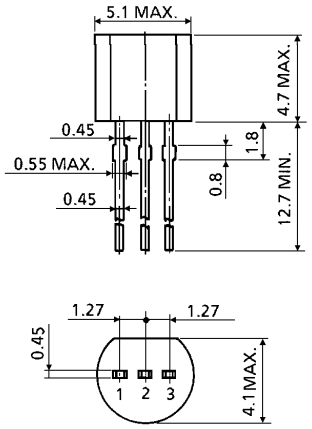
2SC3333

HIGH VOLTAGE SWITCHING APPLICATIONS

COLOR TV CHROMA OUTPUT APPLICATIONS

- High Voltage : V_{CEO} = 250V
- Low C_{re} : 1.8pF (Max.)
- Complementary to 2SA1320

Unit in mm



1. EMITTER
2. COLLECTOR
3. BASE

JEDEC	TO-92
EIAJ	SC-43
TOSHIBA	2-5F1B

Weight : 0.21g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	250	V
Collector-Emitter Voltage		V_{CEO}	250	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC	I_C	50	mA
	Pulsed	I_{CP}	100	
Base Current		I_B	20	mA
Collector Power Dissipation		P_C	0.6	W
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} = 200V, I_E = 0	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	—	—	0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 1mA, I_B = 0	250	—	—	V
DC Current Gain	h_{FE}	V_{CE} = 20V, I_C = 25mA	50	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 10mA, I_B = 1mA	—	—	1.5	V
Base-Emitter Voltage	V_{BE}	V_{CE} = 20V, I_C = 25mA	—	0.75	—	V
Transition Frequency	f_T	V_{CE} = 10V, I_C = 10mA	60	100	—	MHz
Reverse Transfer Capacitance	C_{re}	V_{CB} = 30V, I_E = 0, f = 1MHz	—	—	1.8	pF

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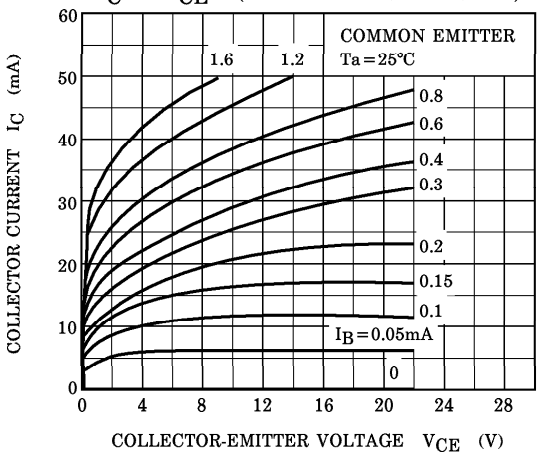
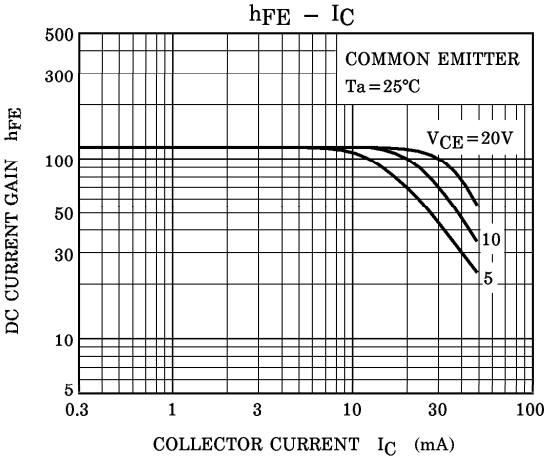
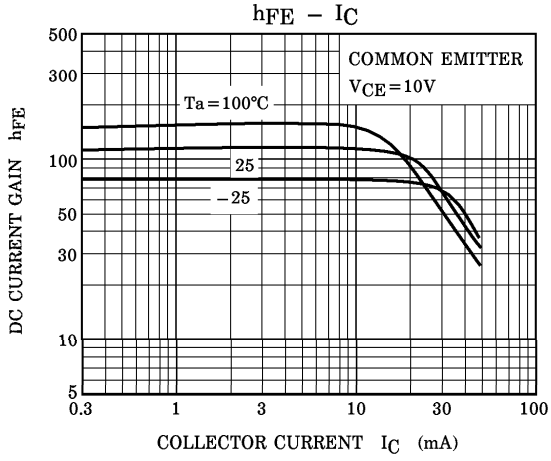
I_C – V_{CE} (LOW VOLTAGE REGION)



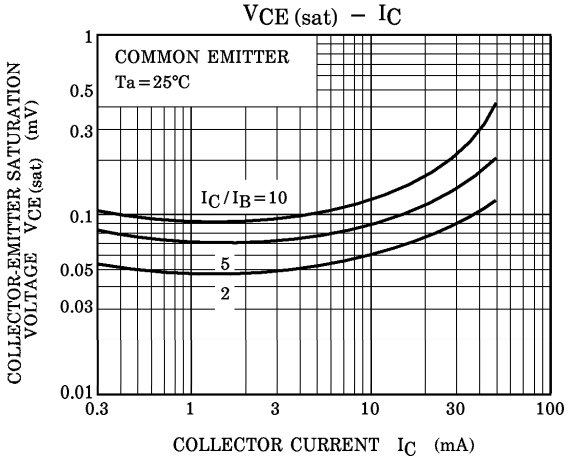
h_{FE} – I_C



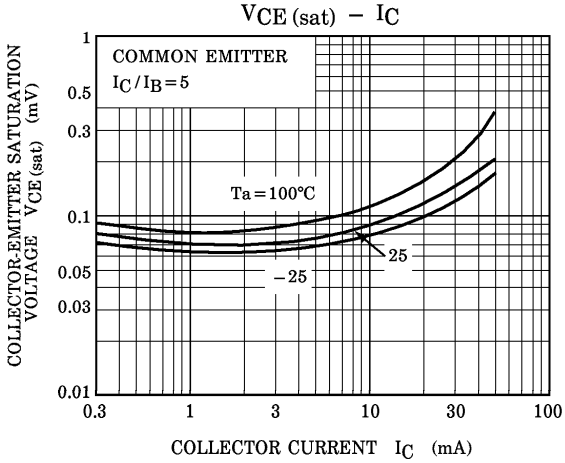
h_{FE} – I_C



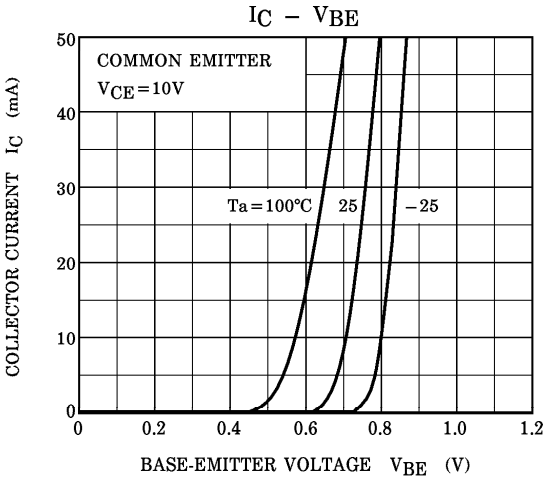
$V_{CE\,(sat)}$ – I_C



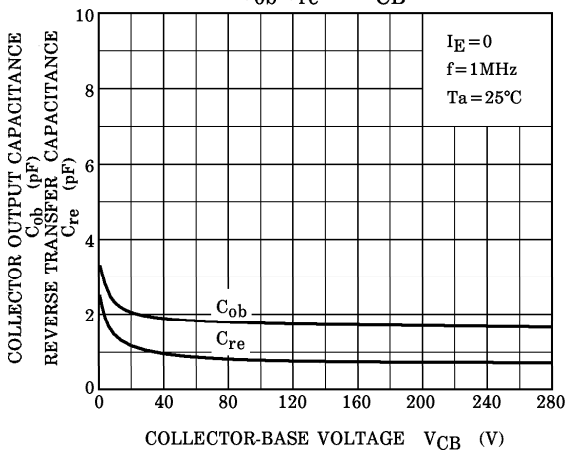
$V_{CE\,(sat)}$ – I_C



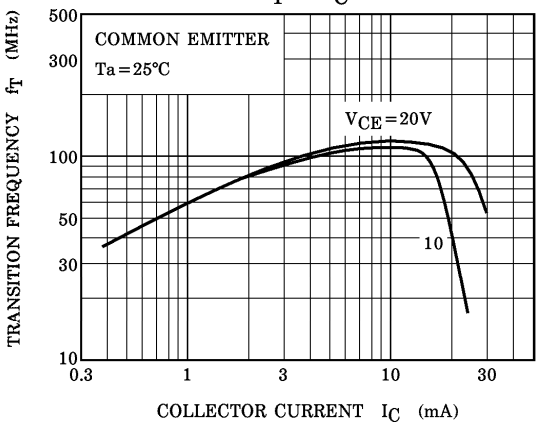
I_C – V_{BE}



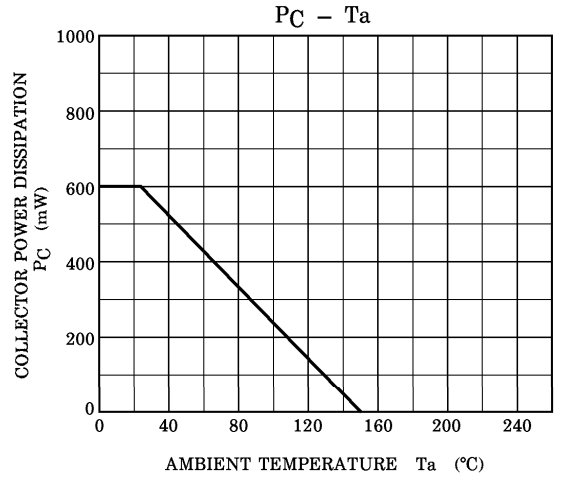
C_{ob}·C_{re} – V_{CB}



f_T – I_C



P_C – Ta



SAFE OPERATING AREA