

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1297

POWER AMPLIFIER APPLICATIONS

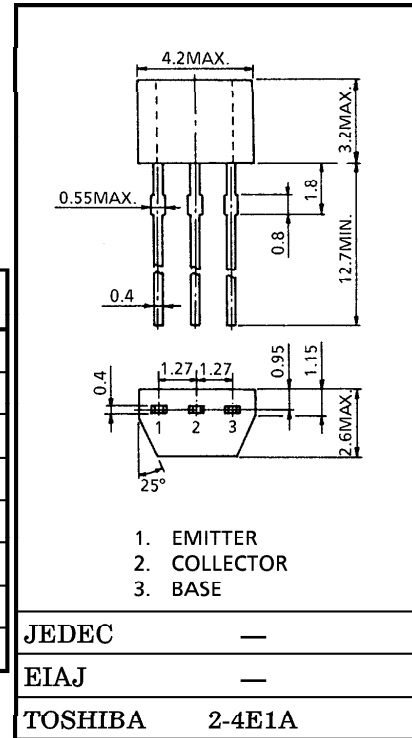
POWER SWITCHING APPLICATIONS

- Low Saturation Voltage : $V_{CE(sat)} = -0.5V (Max.) @ I_C = -2A$
- Complementary to 2SC3267.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-20	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	-2	A
Base Current	I_B	-0.5	A
Collector Power Dissipation	P_C	400	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

Unit in mm



Weight : 0.13g

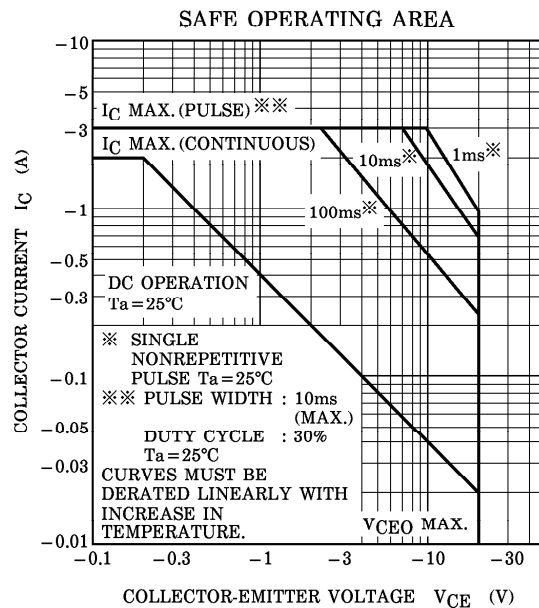
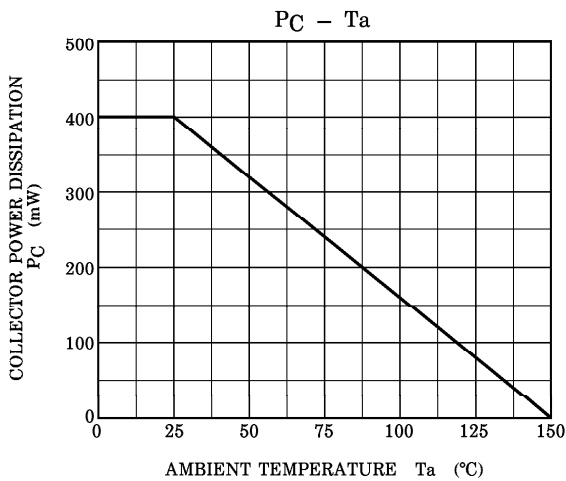
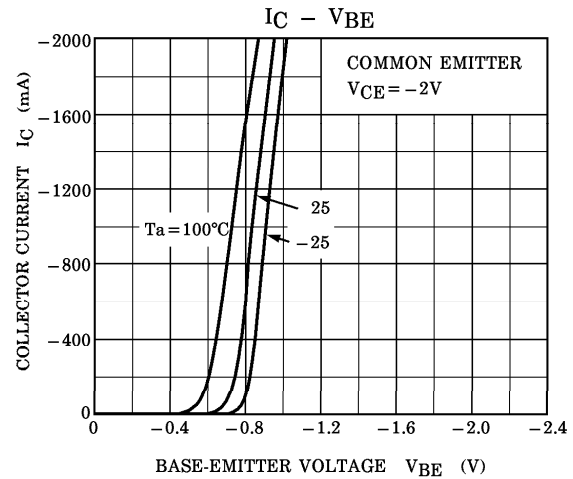
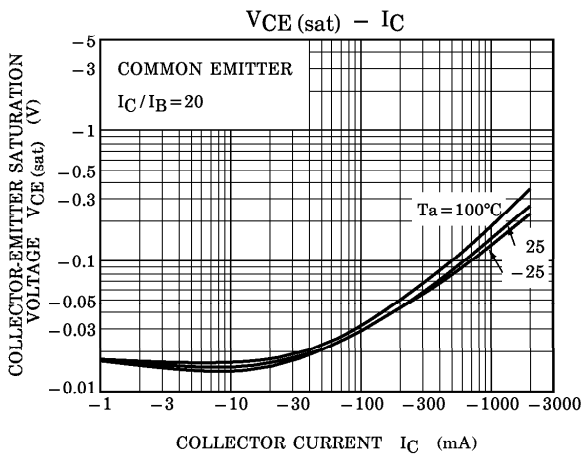
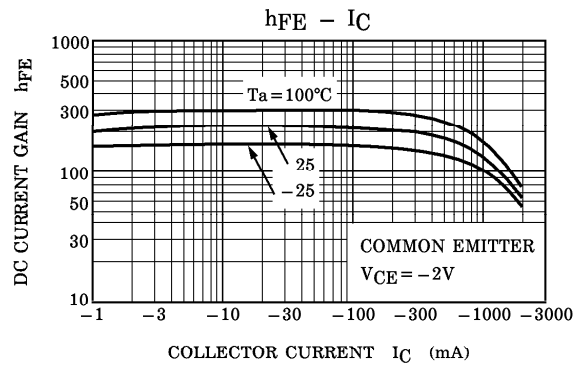
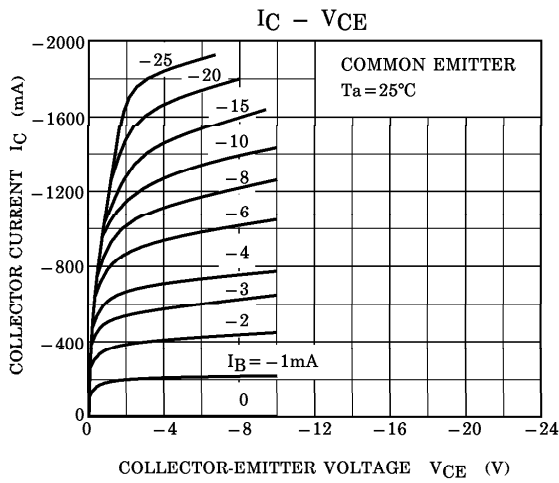
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -20V, I_E = 0$	—	—	-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -6V, I_C = 0$	—	—	-0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-20	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -0.1mA, I_C = 0$	-6	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -2V, I_C = -0.1A$	120	—	400	
	$h_{FE(2)}$	$V_{CE} = -2V, I_C = -2A$	40	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -2A, I_B = -0.1A$	—	—	-0.5	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = -2V, I_C = -0.1A$	—	—	-0.85	V
Transition Frequency	f_T	$V_{CE} = -2V, I_C = -0.5A$	—	120	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	40	—	pF

Note : $h_{FE(1)}$ Y : 120~240, GR : 200~400

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