TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

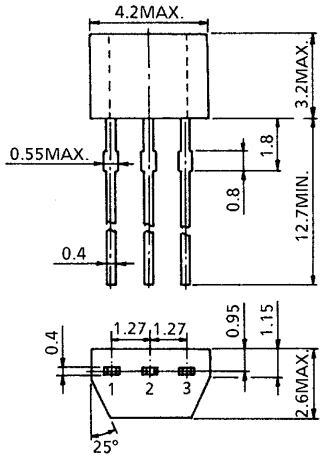
2SA1297

POWER AMPLIFIER APPLICATIONS

POWER SWITCHING APPLICATIONS

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

Unit in mm



1. EMITTER
2. COLLECTOR
3. BASE

JEDEC	—
EIAJ	—
TOSHIBA	2-4E1A

Weight : 0.13g

MAXIMUM RATINGS (Ta = 25°C)

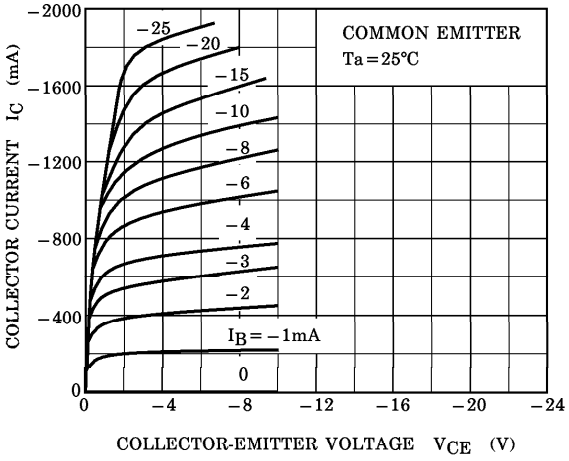
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	−20	V
Collector-Emitter Voltage	V_{CEO}	−20	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	−2	A
Base Current	I_B	−0.5	A
Collector Power Dissipation	P_C	400	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150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

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

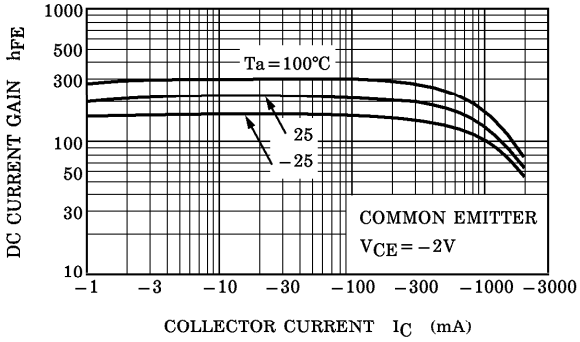
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -20V$, $I_E = 0$	—	—	−0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -6V$, $I_C = 0$	—	—	−0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)\ CEO}$	$I_C = -10mA$, $I_B = 0$	−20	—	—	V
Emitter-Base Breakdown 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

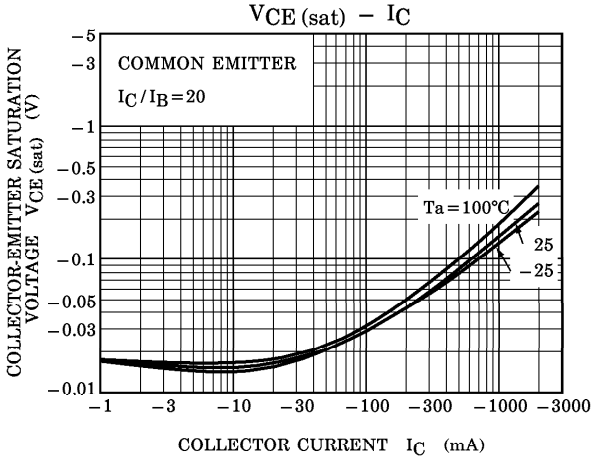
$I_C - V_{CE}$



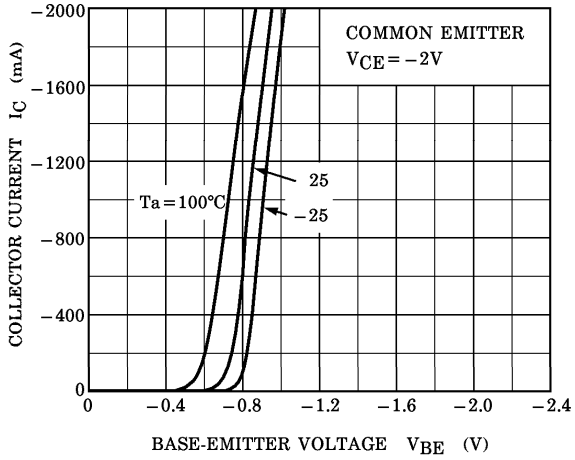
$h_{FE} - I_C$



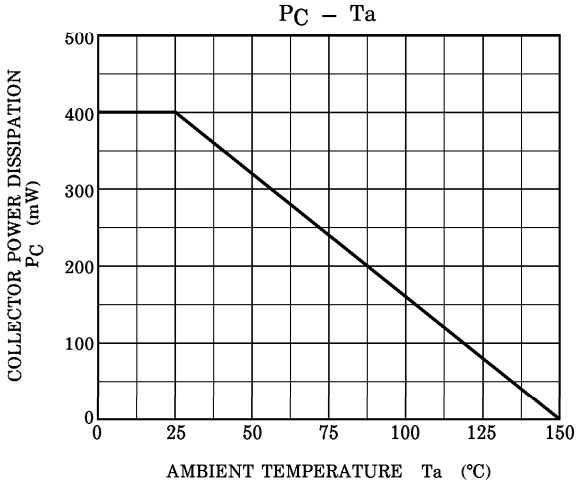
$V_{CE\,(sat)} - I_C$



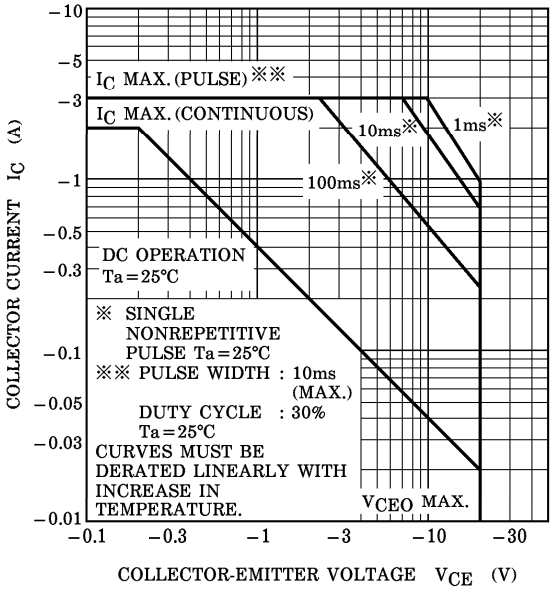
$I_C - V_{BE}$



$P_C - Ta$



SAFE OPERATING AREA



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