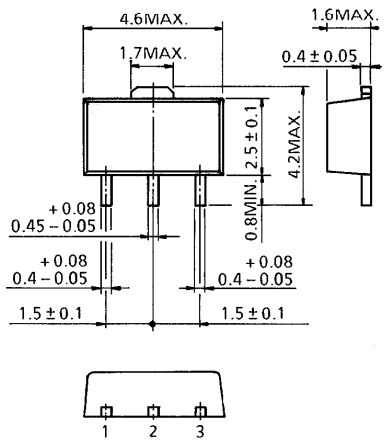
TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC2881

POWER AMPLIFIER APPLICATIONS

- High Voltage : V_{CEO} = 120V
- High Transition Frequency : f_T = 120MHz (Typ.)
- P_C = 1~2W (Mounted Ceramic Substrate)
- Small Flat Package
- Complementary to 2SA1201

Unit in mm



1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

PW-MINI	
JEDEC	—
JEITA	SC-62
TOSHIBA	2-5K1A

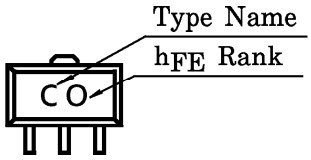
Weight : 0.05g (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	800	mA
Base Current	I_B	160	mA
Collector Power Dissipation	P_C	500	mW
Collector Power Dissipation	P_C (Note)	1000	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

(Note) : Mounted on ceramic substrate ($250mm^2 \times 0.8t$)

MARKING

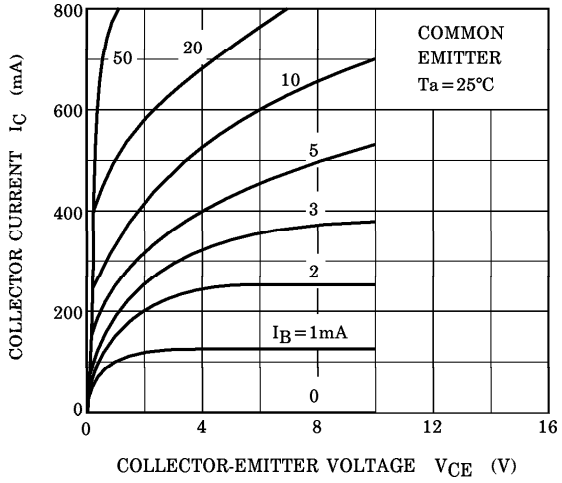


ELECTRICAL CHARACTERISTICS (Ta = 25°C)

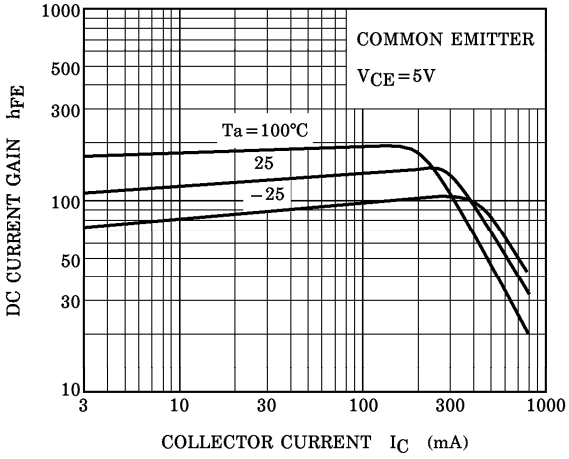
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 120V, I_E = 0	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	—	—	0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 10mA, I_B = 0	120	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 1mA, I_C = 0	5	—	—	V
DC Current Gain	h_{FE} (Note)	V_{CE} = 5V, I_C = 100mA	80	—	240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 500mA, I_B = 50mA	—	—	1.0	V
Base-Emitter Voltage	V_{BE}	V_{CE} = 5V, I_C = 500mA	—	—	1.0	V
Transition Frequency	f_T	V_{CE} = 5V, I_C = 100mA	—	120	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz	—	—	30	pF

(Note) : h_{FE} Classification O : 80~160, Y : 120~240

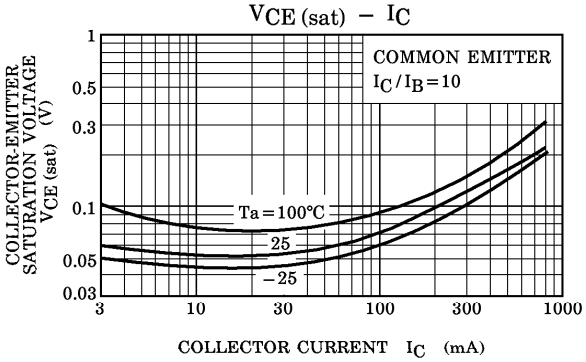
I_C – V_{CE}



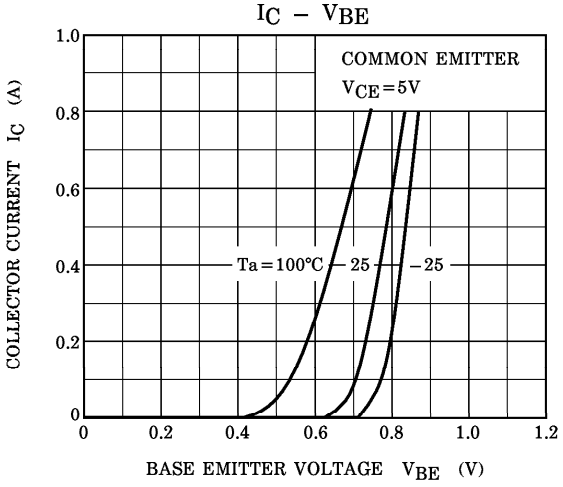
h_{FE} – I_C



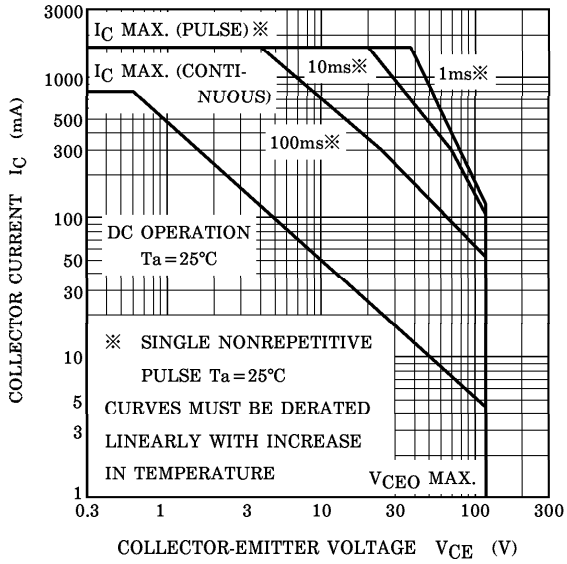
$V_{CE\,(sat)}$ – I_C



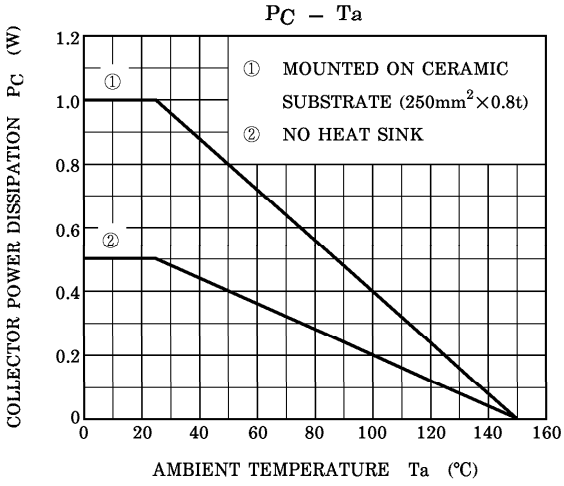
I_C – V_{BE}



SAFE OPERATING AREA



P_C – Ta



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