

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

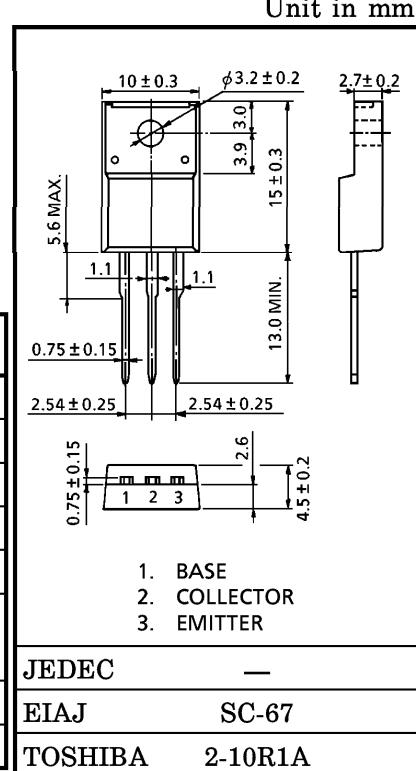
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POWER AMPLIFIER APPLICATIONS

- Good Linearity of h_{FE} .
- Complementary to 2SA1869 and 5 Watts Output Applications.

MAXIMUM RATINGS

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	50	V
Collector-Emitter Voltage		V_{CEO}	50	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current		I_C	3	A
Base Current		I_B	0.3	A
Collector Power Dissipation	$T_a = 25^\circ C$	P_C	2.0	W
	$T_c = 25^\circ C$		10	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	$-55 \sim 150$	$^\circ C$

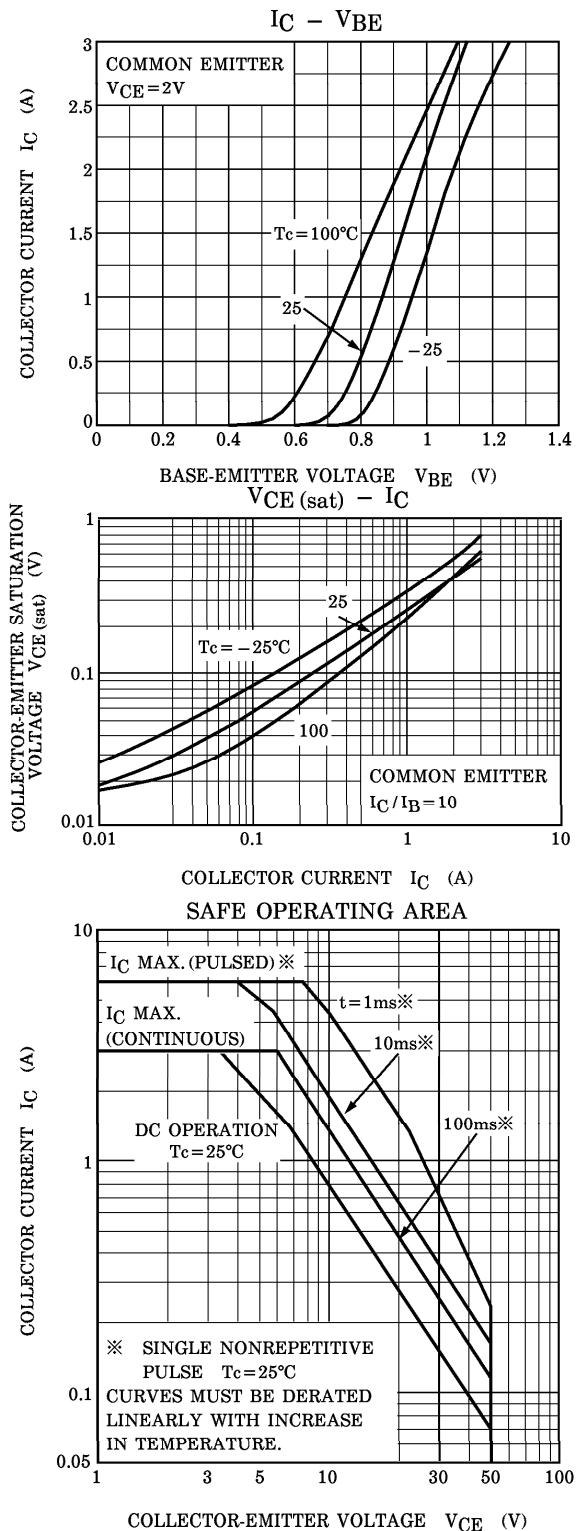
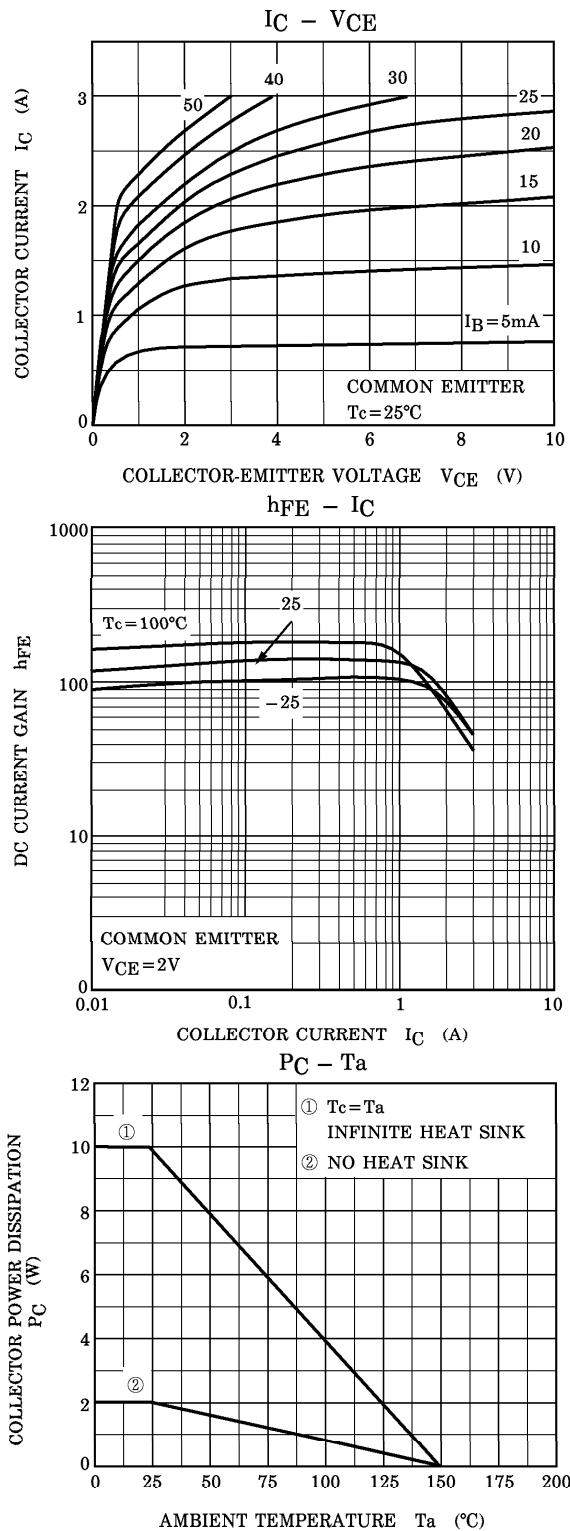


Weight : 1.7g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 50V, I_E = 0$	—	—	1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	—	—	1.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	50	—	—	V
DC Current Gain	h_{FE} (1) (Note)	$V_{CE} = 2V, I_C = 0.5A$	70	—	240	
	h_{FE} (2)	$V_{CE} = 2V, I_C = 2.5A$	30	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2A, I_B = 0.2A$	—	0.4	0.6	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 2V, I_C = 0.5A$	—	0.75	1.0	V
Transition Frequency	f_T	$V_{CE} = 2V, I_C = 0.5A$	—	80	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	—	30	—	pF

Note : h_{FE} (1) Classification O : 70~140, Y : 120~240



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