

TOSHIBA Transistor Silicon PNP Triple Diffused Type

2SB1015A

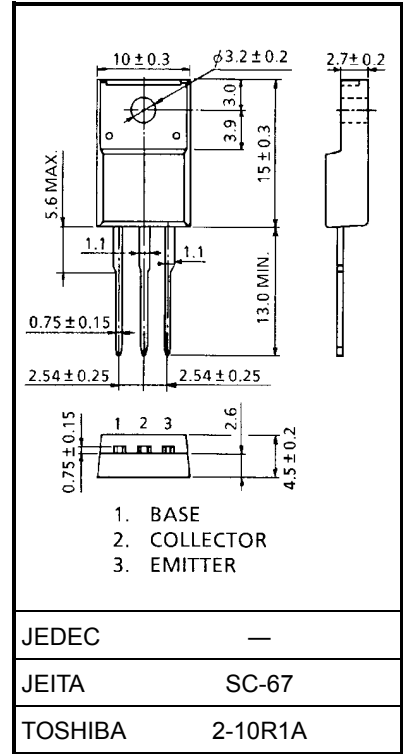
Audio Frequency Power Amplifier Applications

- Low collector saturation voltage: $V_{CE(sat)} = -1.7 \text{ V (max)}$
($I_C = -3 \text{ A}$, $I_B = -0.3 \text{ A}$)
- Collector power dissipation: $P_C = 25 \text{ W (} T_c = 25^\circ\text{C)}$

Maximum Ratings ($T_a = 25^\circ\text{C}$)

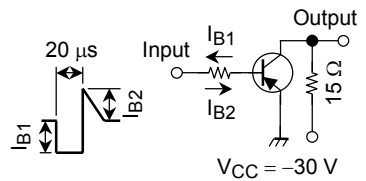
Characteristics	Symbol	Rating	Unit	
Collector-base voltage	V_{CBO}	-60	V	
Collector-emitter voltage	V_{CEO}	-60	V	
Emitter-base voltage	V_{EBO}	-7	V	
Collector current	I_C	-3	A	
Base current	I_B	-0.5	A	
Collector power dissipation	P_C	$T_a = 25^\circ\text{C}$	2.0	W
		$T_c = 25^\circ\text{C}$	25	
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature range	T_{stg}	-55~150	$^\circ\text{C}$	

Unit: mm



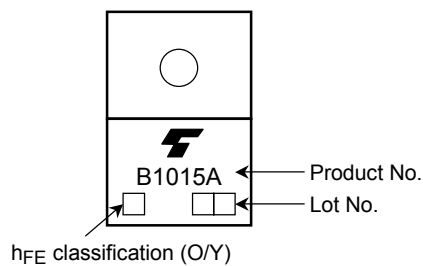
Weight: 1.7 g (typ.)

Electrical Characteristics (Ta = 25°C)

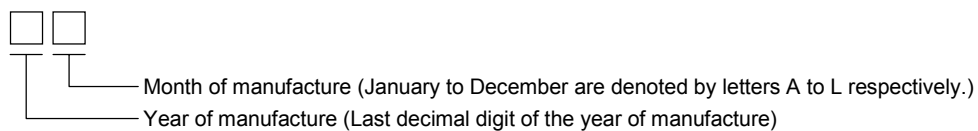
Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		I_{CBO}	$V_{CB} = -60\text{ V}, I_E = 0$	—	—	-100	μA
Emitter cut-off current		I_{EBO}	$V_{EB} = -7\text{ V}, I_C = 0$	—	—	-100	μA
Collector-emitter breakdown voltage		$V_{(BR)CEO}$	$I_C = -50\text{ mA}, I_B = 0$	-60	—	—	V
DC current gain	$h_{FE(1)}$ (Note)		$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$	60	—	200	
	$h_{FE(2)}$			20	—	—	
Collector-emitter saturation voltage		$V_{CE(sat)}$	$I_C = -3\text{ A}, I_B = -0.3\text{ A}$	—	-0.5	-1.7	V
Base-emitter voltage		V_{BE}	$V_{CE} = -5\text{ A}, I_C = -0.5\text{ A}$	—	-0.7	-1.0	V
Transition frequency		f_T	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$	—	9	—	MHz
Collector output capacitance		C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	150	—	pF
Switching time	Turn-on time	t_{on}		—	0.4	—	μs
	Storage time	t_{stg}		—	1.7	—	
	Fall time	t_f		—	—	0.5	

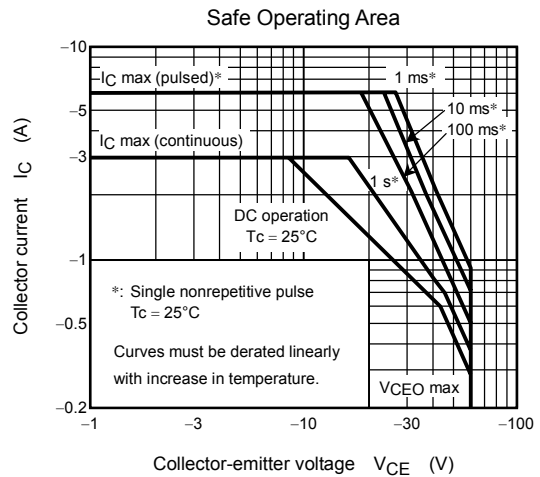
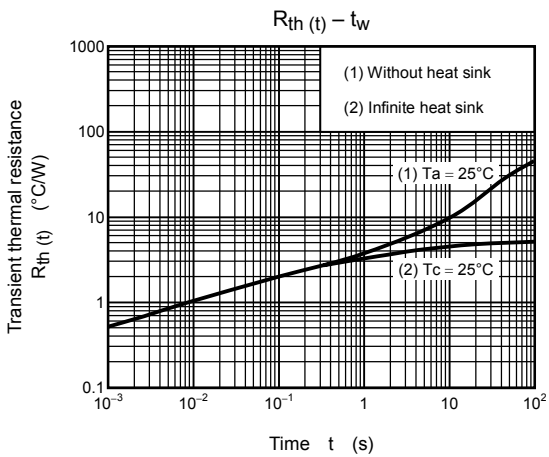
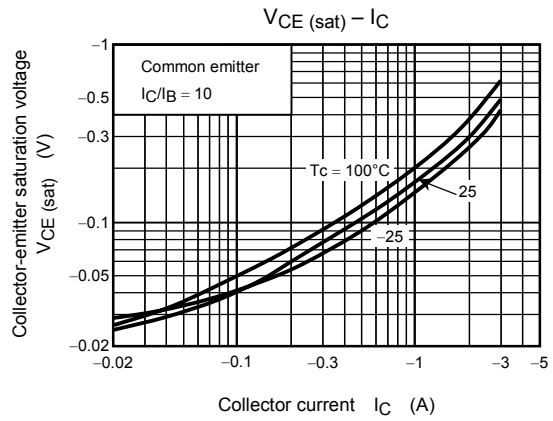
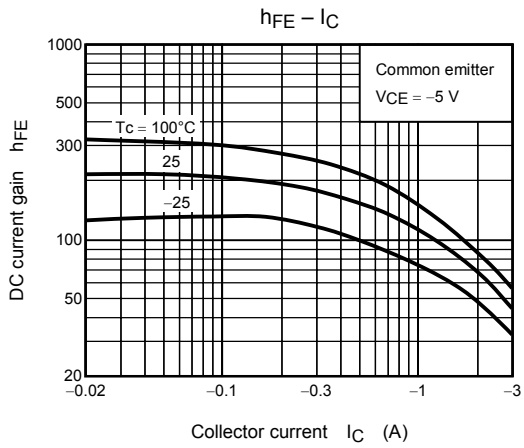
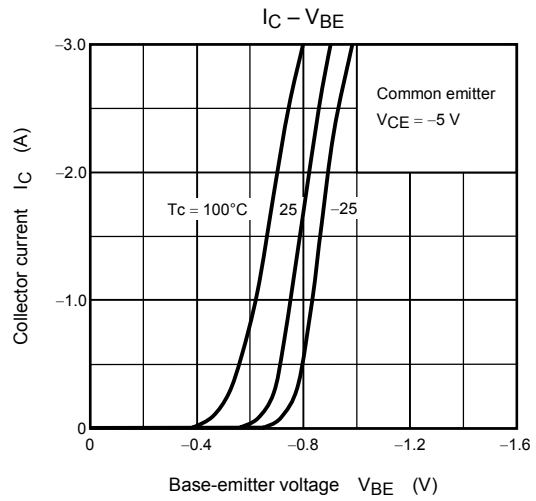
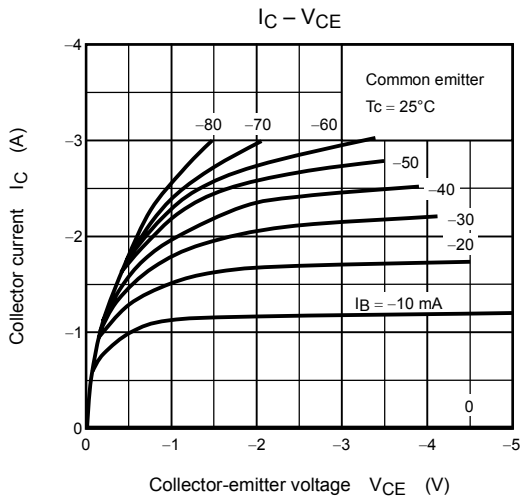
Note: $h_{FE(1)}$ classification O: 60~120, Y: 100~200

Marking



Explanation of Lot No.





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