

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

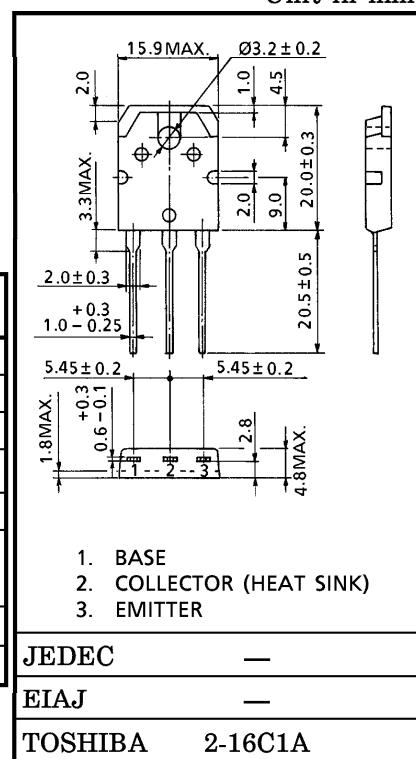
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POWER AMPLIFIER APPLICATIONS

- Complementary to 2SA1939
- Recommend for 40W High Fidelity Audio Frequency Amplifier Output Stage.

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

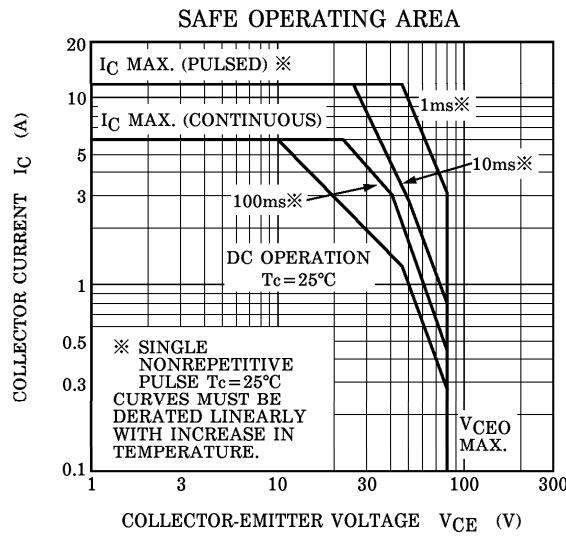
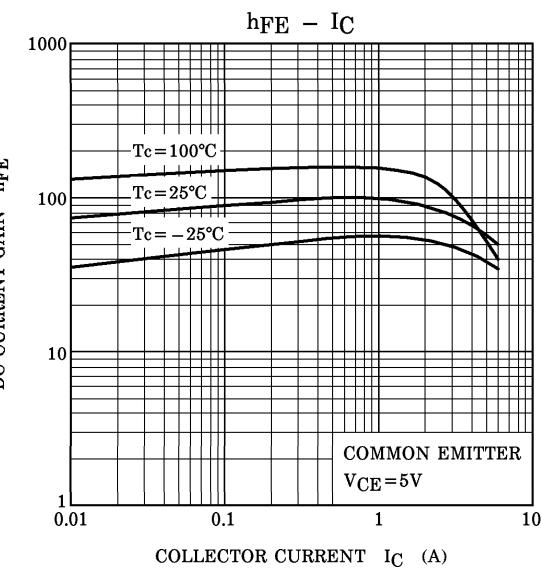
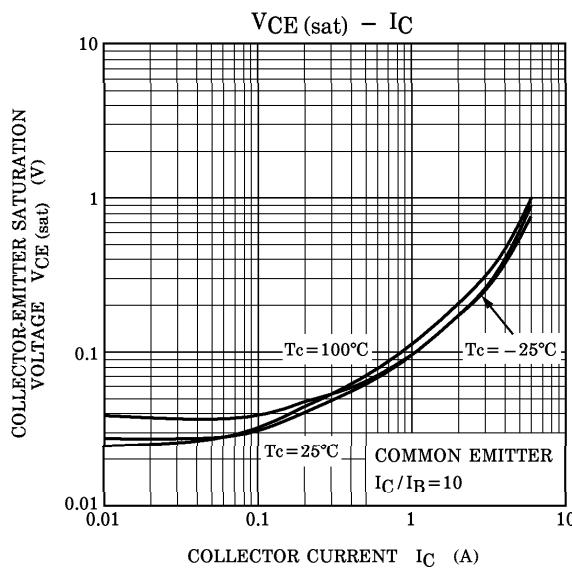
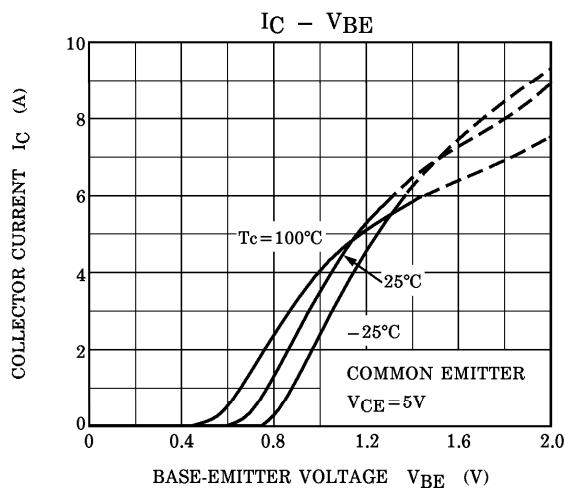
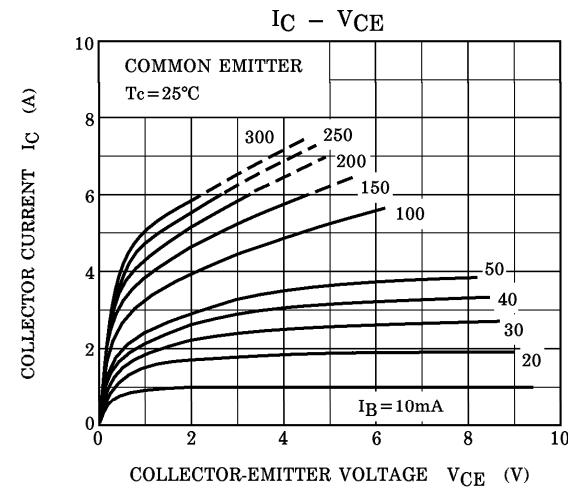
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	6	A
Base Current	I_B	0.6	A
Collector Power Dissipation ($T_c = 25^\circ\text{C}$)	P_C	60	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55\text{--}150$	$^\circ\text{C}$



Weight : 4.7g (Typ.)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 80\text{V}$, $I_E = 0$	—	—	5.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_C = 0$	—	—	5.0	μA
Collector-Emitter Breakdown Voltage	$V_{(\text{BR})\text{CEO}}$	$I_C = 50\text{mA}$, $I_B = 0$	80	—	—	V
DC Current Gain	h_{FE} (1) (Note)	$V_{CE} = 5\text{V}$, $I_C = 1\text{A}$	55	—	160	
	h_{FE} (2)	$V_{CE} = 5\text{V}$, $I_C = 3\text{A}$	35	75	—	
Collector-Emitter Saturation Voltage	$V_{CE(\text{sat})}$	$I_C = 5\text{A}$, $I_B = 0.5\text{A}$	—	0.45	2.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 5\text{V}$, $I_C = 3\text{A}$	—	0.92	1.5	V
Transition Frequency	f_T	$V_{CE} = 5\text{V}$, $I_C = 1\text{A}$	—	30	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$	—	75	—	pF

Note : h_{FE} (1) Classification R : 55~110, O : 80~160



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