Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

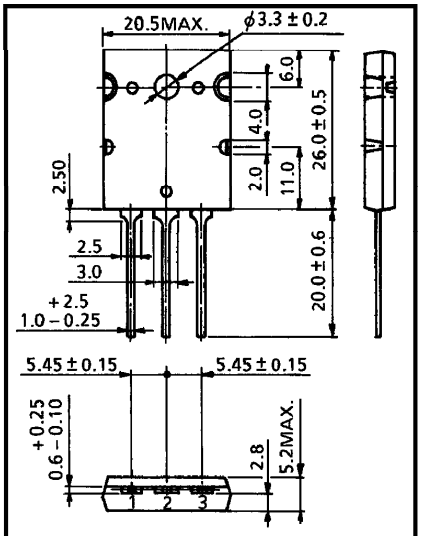
TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE

2SA1943

POWER AMPLIFIER APPLICATIONS

- Complementary to 2SC5200
- Recommended for 100 W High Fidelity Audio Frequency Amplifier Output Stage.

Unit in mm



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

JEDEC	—
EIAJ	—
TOSHIBA	2-21F1A

Weight : 9.75 g (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	−230	V
Collector-Emitter Voltage	V_{CEO}	−230	V
Emitter-Base Voltage	V_{EBO}	−5	V
Collector Current	I_C	−15	A
Base Current	I_B	−1.5	A
Collector Power Dissipation (Tc = 25°C)	P_C	150	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

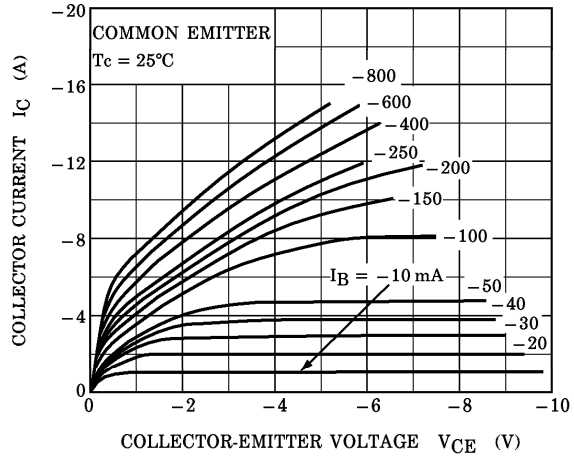
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = −230 V, I_E = 0	—	—	−5.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = −5 V, I_C = 0	—	—	−5.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = −50 mA, I_B = 0	−230	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	V_{CE} = −5 V, I_C = −1 A	55	—	160	
	$h_{FE(2)}$	V_{CE} = −5 V, I_C = −7 A	35	60	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = −8 A, I_B = −0.8 A	—	−1.5	−3.0	V
Base-Emitter Voltage	V_{BE}	V_{CE} = −5 V, I_C = −7 A	—	−1.0	−1.5	V
Transition Frequency	f_T	V_{CE} = −5 V, I_C = −1 A	—	30	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = −10 V, I_E = 0, f = 1 MHz	—	360	—	pF

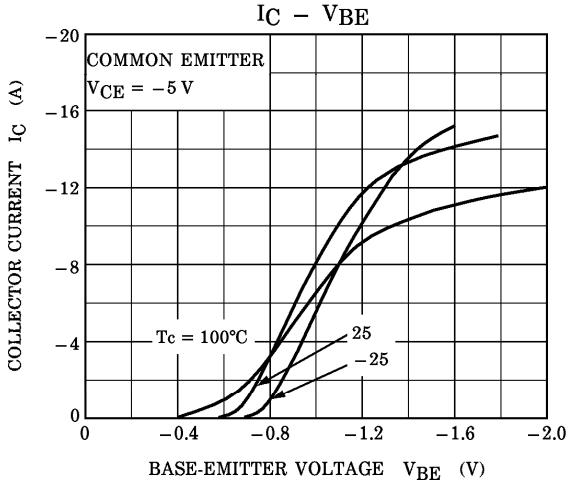
(Note) : $h_{FE(1)}$ Classification R : 55~110, O : 80~160

000707EAA2

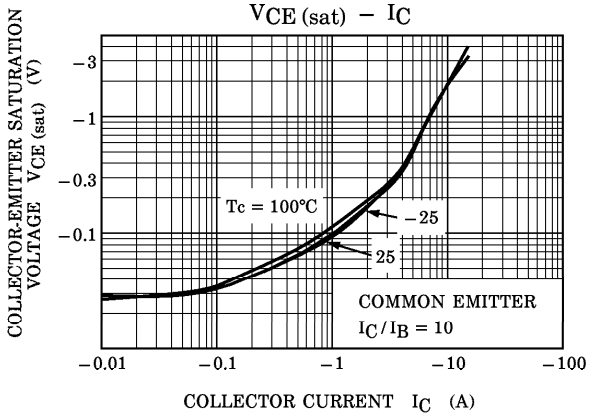
$I_C - V_{CE}$



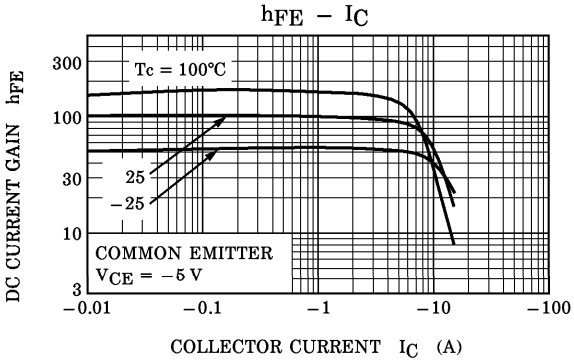
$I_C - V_{BE}$



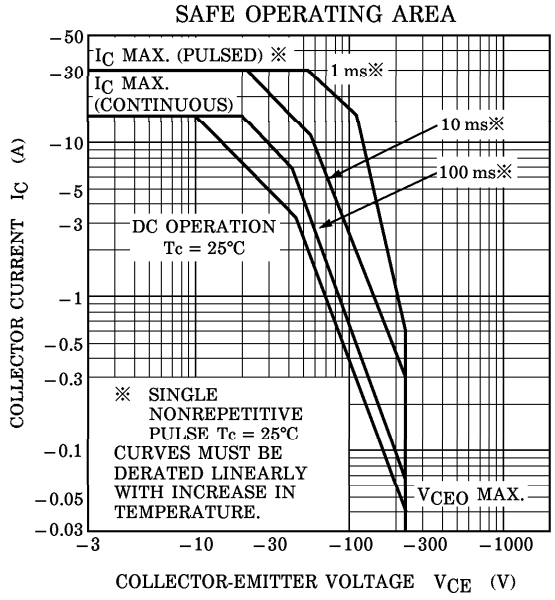
$V_{CE\,(sat)} - I_C$



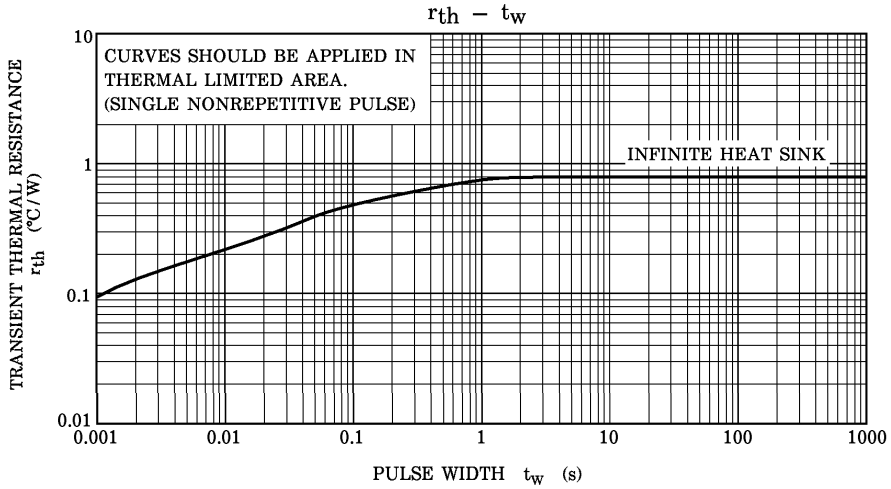
$h_{FE} - I_C$



SAFE OPERATING AREA



000707EAA2'


r_{th} – t_w
CURVES SHOULD BE APPLIED IN
THERMAL LIMITED AREA.
(SINGLE NONREPETITIVE PULSE)
INFINITE HEAT SINK
TRANSIENT THERMAL RESISTANCE
r_{th} (°C/W)
10
1
0.1
0.01
0.001
0.01
0.1
1
10
100
1000
PULSE WIDTH t_w (s)