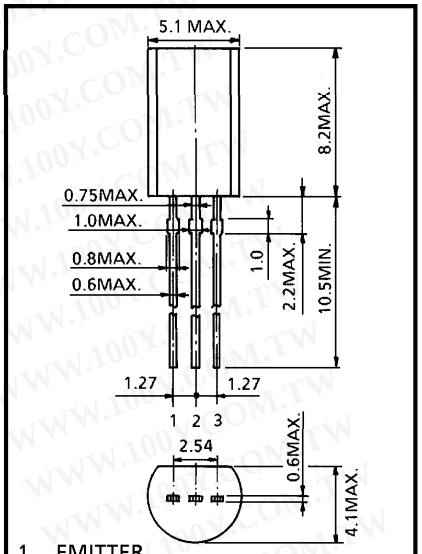
TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE

2SA949

DRIVER STAGE AUDIO AMPLIFIER APPLICATIONS
HIGH VOLTAGE SWITCHING APPLICATIONS

- High Breakdown Voltage : $V_{CEO} = -150V$
- Low Output Capacitance : $C_{ob} = 5.0pF$ (Max.)
- High Transition Frequency : $f_T = 120MHz$ (Typ.)

Unit in mm



1. EMITTER
2. COLLECTOR
3. BASE

JEDEC	TO-92MOD
JEITA	—
TOSHIBA	2-5J1A

Weight : 0.36g (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

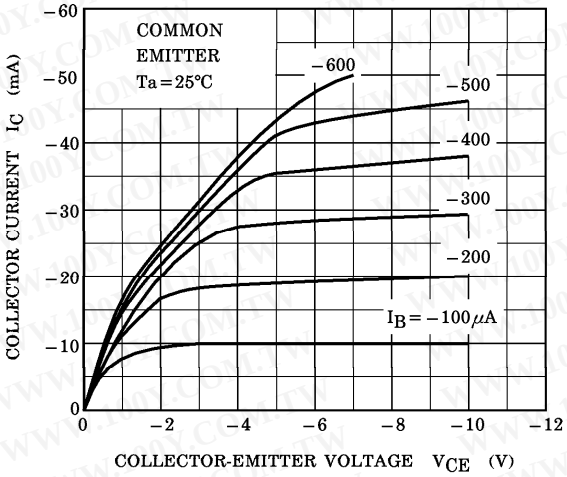
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	−150	V
Collector-Emitter Voltage	V_{CEO}	−150	V
Emitter-Base Voltage	V_{EBO}	−5	V
Collector Current	I_C	−50	mA
Base Current	I_B	5	mA
Collector Power Dissipation	P_C	800	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

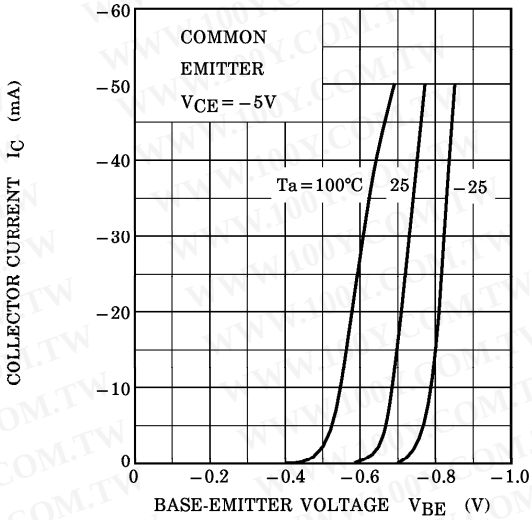
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -150V$, $I_E = 0$	—	—	−0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V$, $I_C = 0$	—	—	−0.1	μA
DC Current Gain	h_{FE} (Note)	$V_{CE} = -5V$, $I_C = -10mA$	70	—	240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10mA$, $I_B = -1mA$	—	—	−0.8	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = -5V$, $I_C = -30mA$	—	—	−0.9	V
Transition Frequency	f_T	$V_{CE} = -30V$, $I_C = -10mA$	—	120	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V$, $I_E = 0$, f = 1MHz	—	4.0	5.0	pF

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

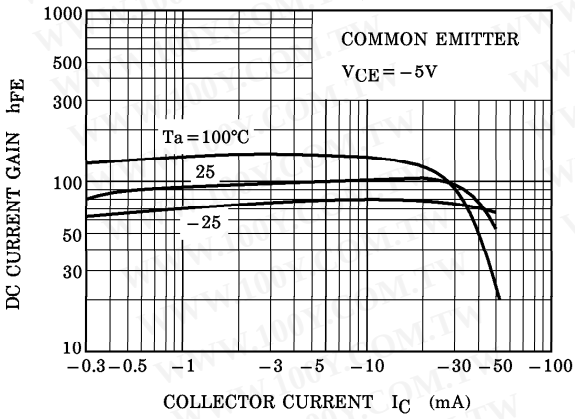
I_C – V_{CE}



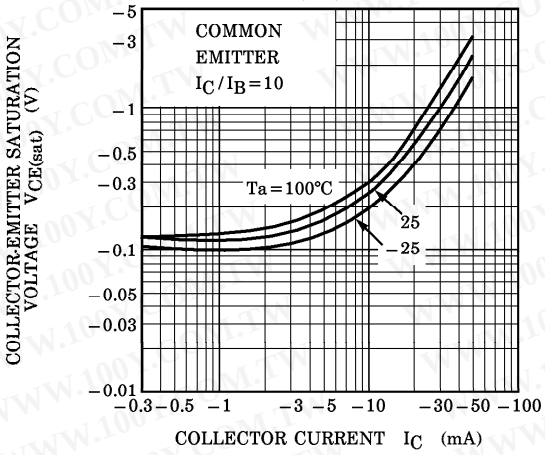
I_C – V_{BE}



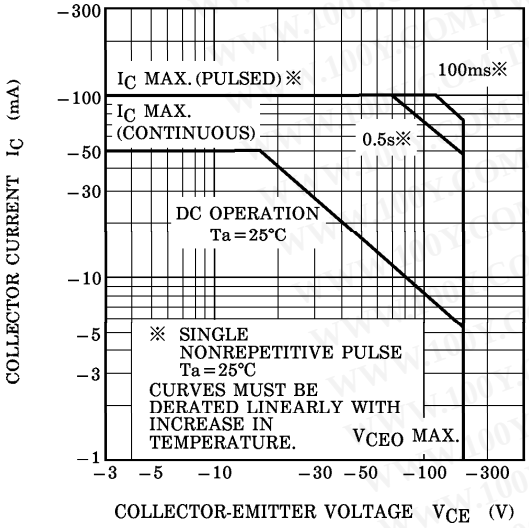
h_{FE} – I_C



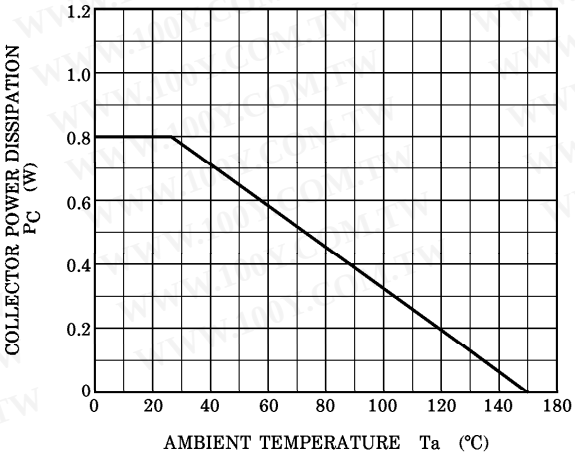
$V_{CE(sat)}$ – I_C



SAFE OPERATING AREA



P_C – Ta



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