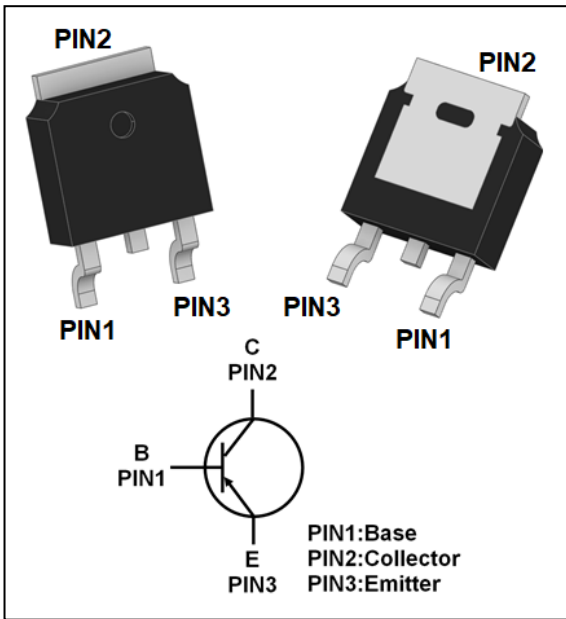


## PNP High Power Bipolar Transistor



### Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1

### Applications

- Complement to 2SC3303
- Low Collector Emitter Saturation Voltage
- Fast Switching Speeds

### Mechanical Data

- Package: TO-252
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Unit Weight: 0.32g

### ■ Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Value
Device marking code			2SA1952
Collector-base voltage	$V_{CBO}$	V	-100
Collector-emitter voltage	$V_{CEO}$	V	-60
Emitter-base voltage	$V_{EBO}$	V	-5
Collector current	$I_c$	A	-5
Power dissipation (*)	$P_D$	W	1
Thermal resistance, junction-to-ambient (*)	$R_{thJA}$	°C/W	125
Junction temperature	$T_j$	°C	-55 to +150
Storage temperature	$T_{STG}$	°C	-55 to +150

(\*) Device mounted on FR-4 PCB(25.4\*25.4\*1.0mm)mounting pad.



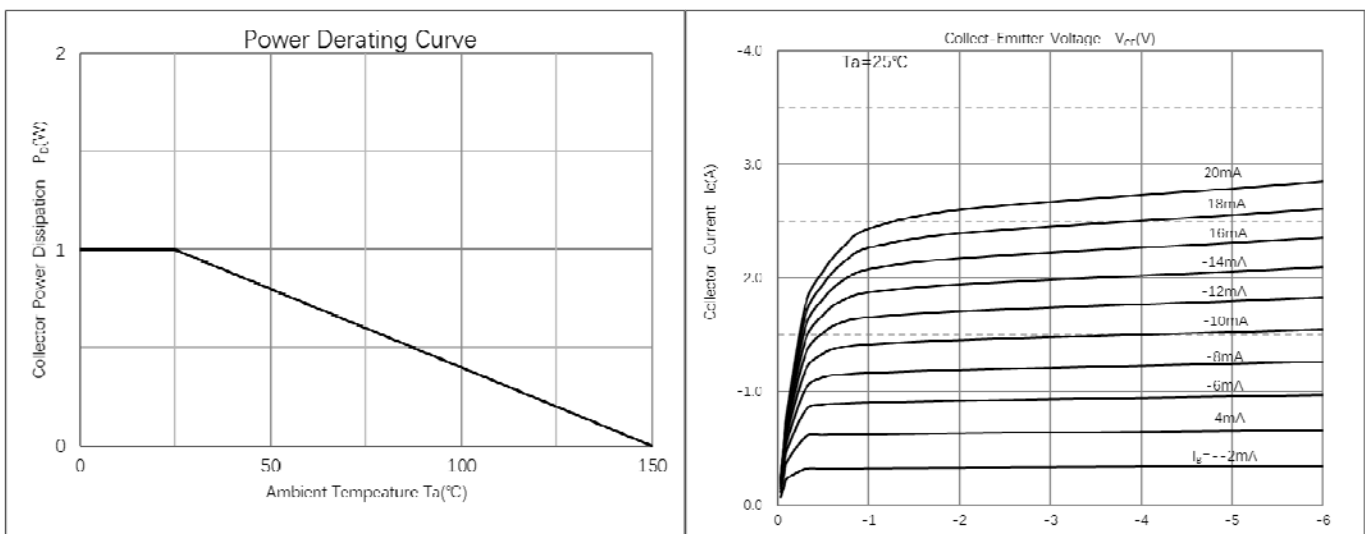
### ■ Electrical Characteristics (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C = -50\mu A, I_E = 0$	-100		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C = -1mA, I_B = 0$	-60		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E = -50\mu A, I_C = 0$	-5		
Collector-base cut-off current	$I_{CBO}$	$\mu A$	$V_{CB} = -100V$			-10
Emitter-base cut-off current	$I_{EBO}$	$\mu A$	$V_{EB} = -5V$			-10
DC current gain	$h_{FE}$		$V_{CE} = -2V, I_C = -1A$	120		270
			$V_{CE} = -2V, I_C = -3A$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C = -3A, I_B = -150mA$			-0.3
			$I_C = -4A, I_B = -200mA$			-0.5
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C = -3A, I_B = -150mA$			-1.2
			$I_C = -4A, I_B = -200mA$			-1.5
Collector-base output capacitance	Cob	pF	$V_{CB} = -10V, f = 1MHz$		93	

### ■ Ordering Information (Example)

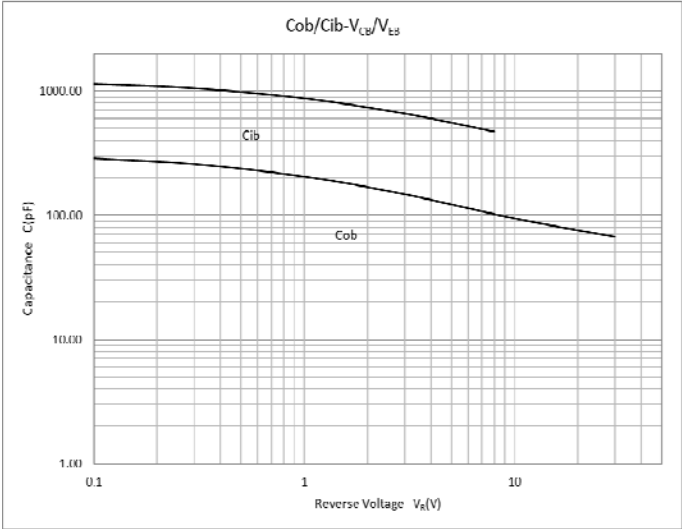
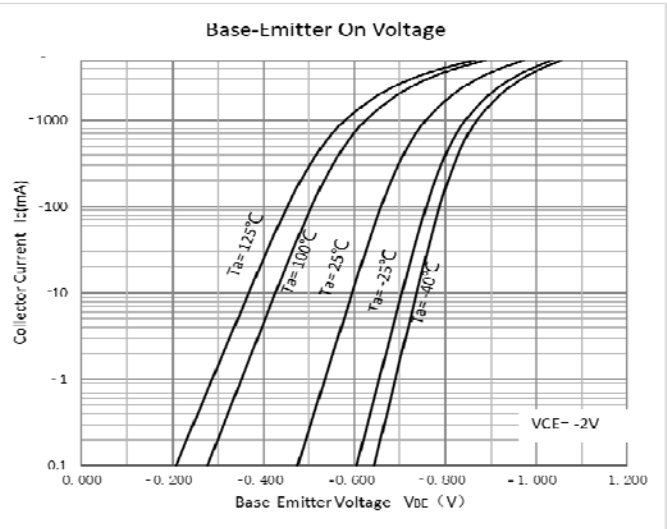
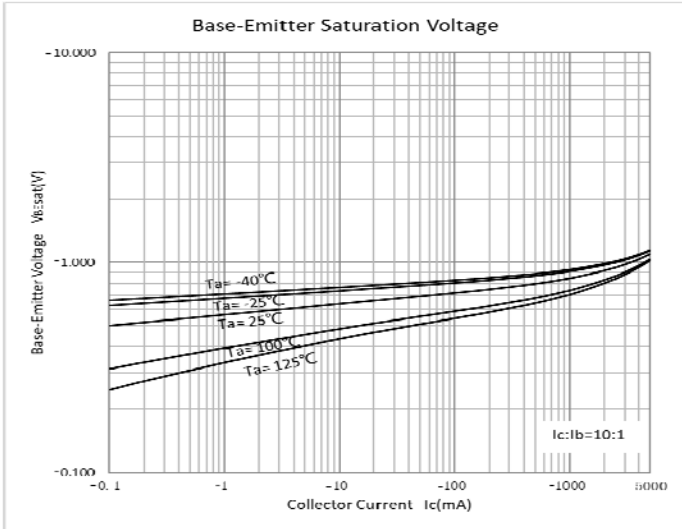
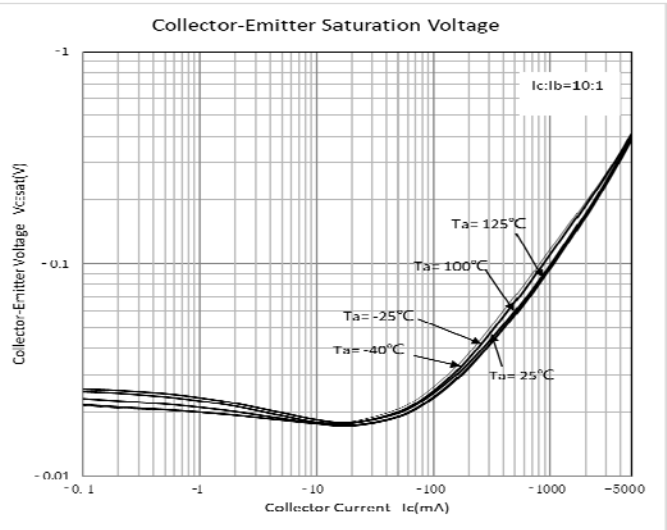
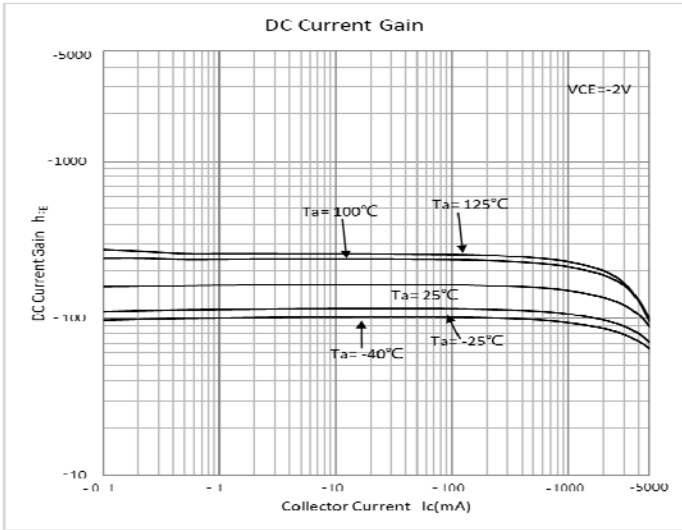
PREFERRED P/N	PACKING CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
2SA1952	F2	2500	2500	25000	13"Reel

### ■ Characteristics(Typical)

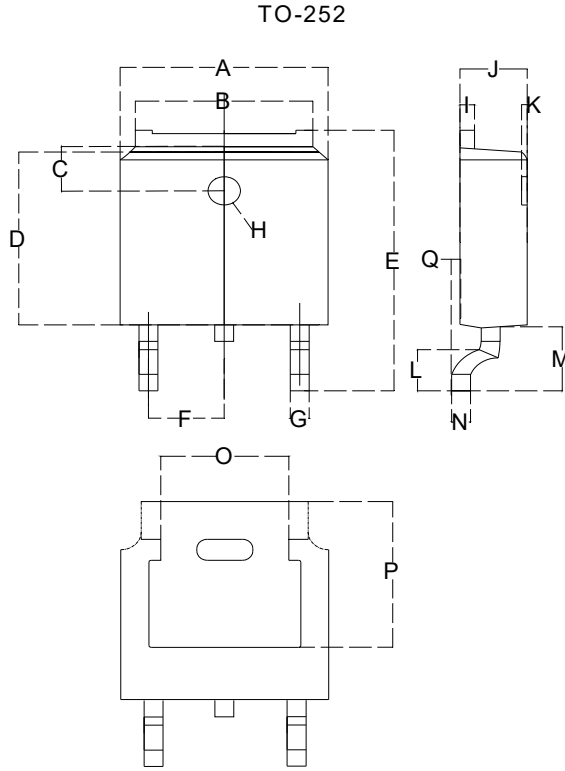




■ Characteristics(Typical)



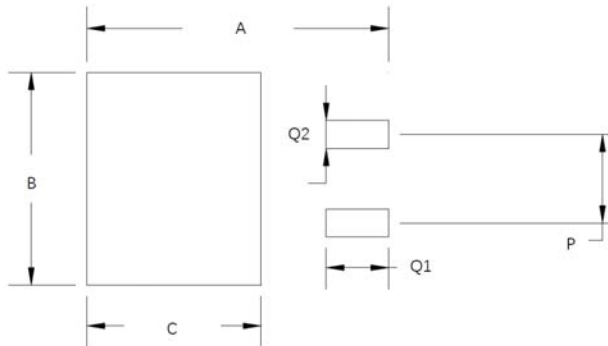
## TO-252 Package information



Dimensions in millimeters

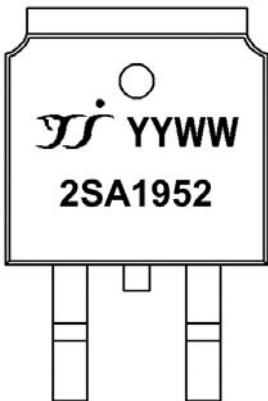
TO-252		
Dim	Min	Max
A	6.500	6.700
B	5.100	5.460
C	1.400	1.800
D	6.000	6.200
E	10.000	10.400
F	2.166	2.366
G	0.660	0.860
H	Φ 1.050	Φ 1.350
I	0.460	0.580
J	2.200	2.400
K	0	0.300
L	0.890	2.290
M	2.730	3.080
N	0.430	0.580
O	4.20	4.95
P	5.15	5.45
Q	0	0.2

## Suggested Pad Layout



Dim	Millimeters
A	11.4
B	6.74
C	6.23
P	4.56
Q1	2.28
Q2	1.52

## Marking Code



Yangjie LOGO

YYWW: YY, years; WW, week.

For example, 24 represents 2024; 01 represents the first week of this year.

2SA1952: Product model.



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