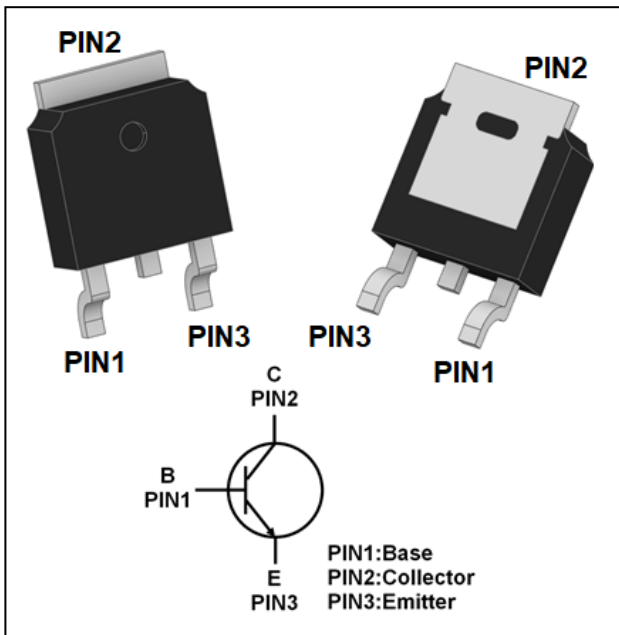


## NPN High Power Bipolar Transistor



### Features

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

### Applications

- Complement to MJD45H11B
- 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			MJD44H11B
Collector-base voltage	$V_{CBO}$	V	100
Collector-emitter voltage	$V_{CEO}$	V	80
Emitter-base voltage	$V_{EBO}$	V	6
Collector current	$I_C$	A	8
Power dissipation (*)	$P_D$	W	1.5
Thermal resistance, junction-to-ambient (*)	$R_{thJA}$	°C/W	83.3
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.



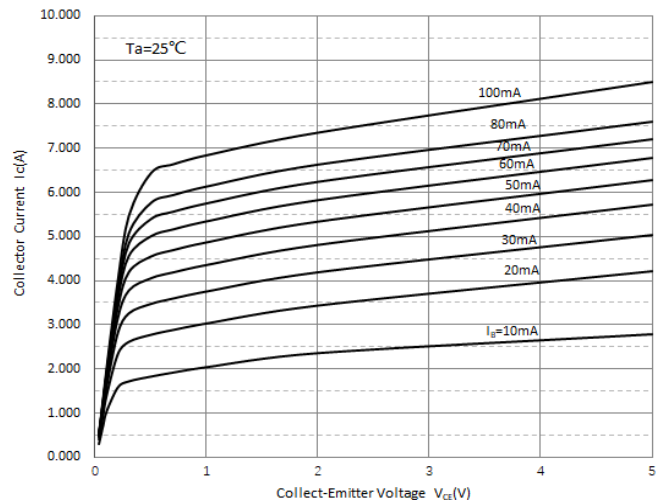
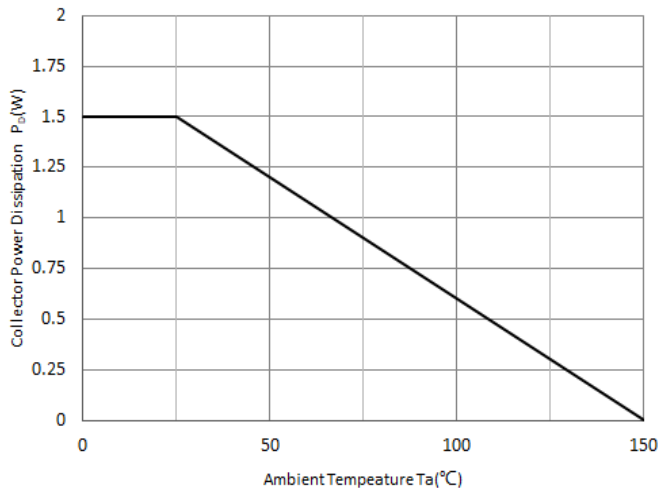
## ■ Electrical Characteristics (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C=100\mu A, I_E=0$	100		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C=1mA, I_B=0$	80		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E=100\mu A, I_C=0$	6		
Collector-base cut-off current	$I_{CBO}$	$\mu A$	$V_{CB}=100V$			1
Collector cutoff current	$I_{CES}$	$\mu A$	$V_{CE}=64V$			1
Emitter-base cut-off current	$I_{EBO}$	$\mu A$	$V_{EB}=5V$			1
DC current gain	$h_{FE}$		$V_{CE}=1V, I_C=2A$	60		
			$V_{CE}=1V, I_C=4A$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=8A, I_B=400mA$			1.0
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=8A, I_B=800mA$			1.5
Collector-base output capacitance	Cob	pF	$V_{CB}=10V, f=1MHz$		44	

## ■ Ordering Information (Example)

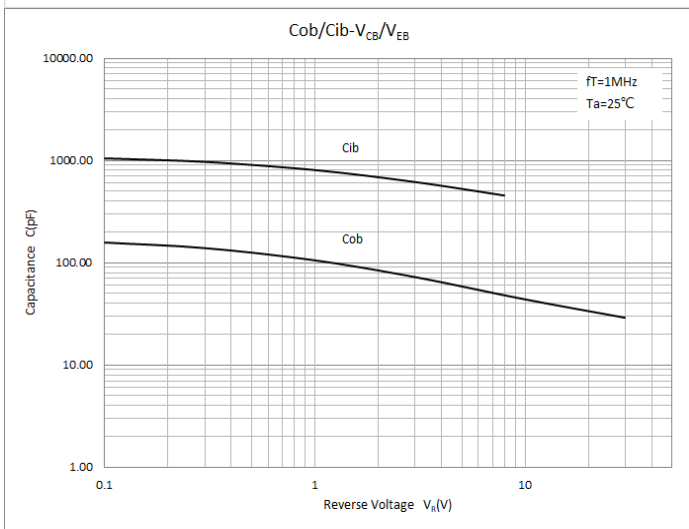
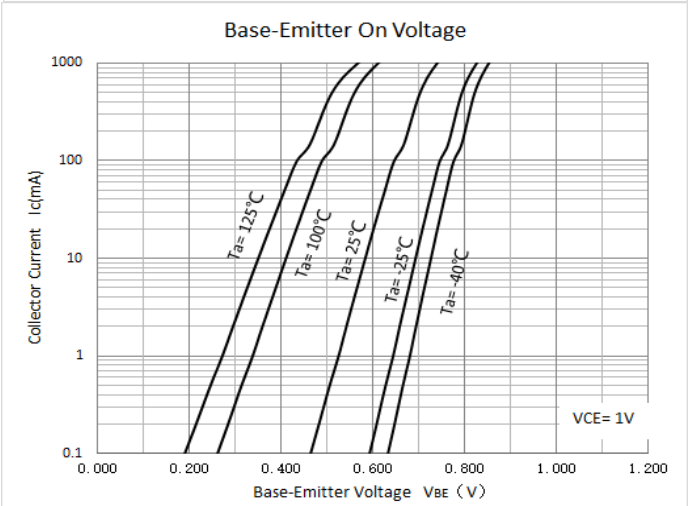
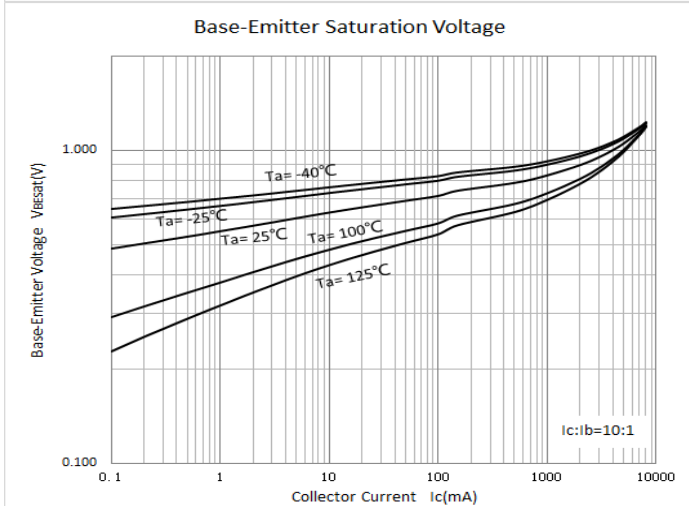
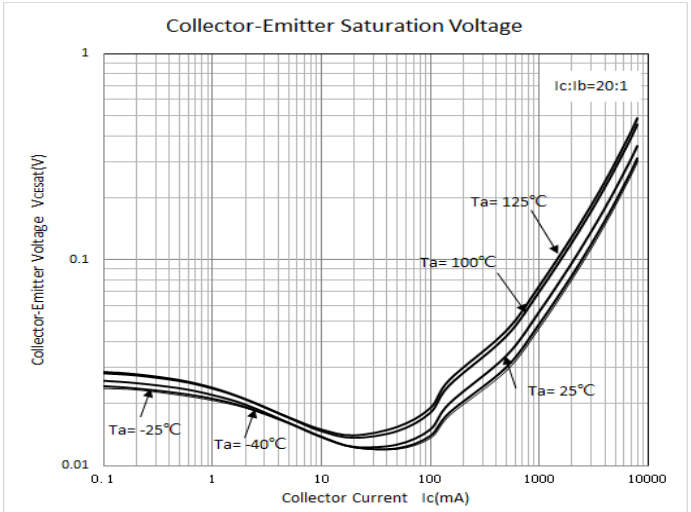
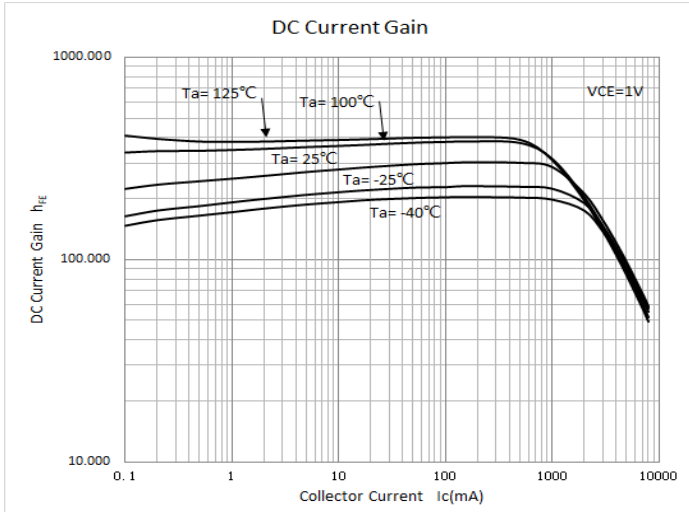
PREFERRED P/N	PACKING CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MJD44H11B	F2	2500	5000	25000	13"Reel

## ■ Characteristics(Typical)

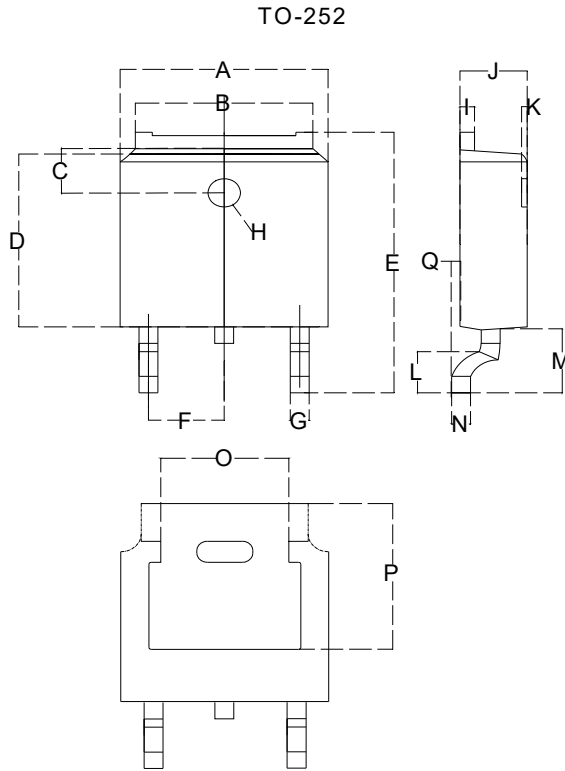




■ Characteristics(Typical)



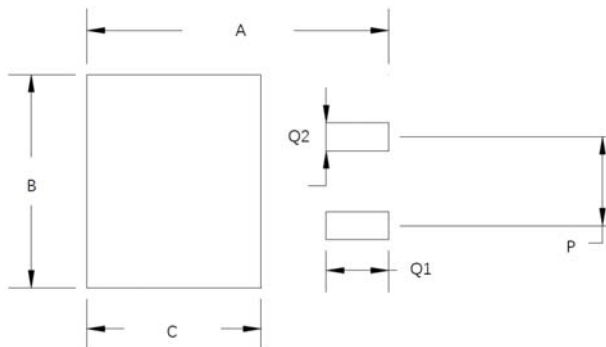
## ■ TO-252 Package information



Dimensions in millimeters

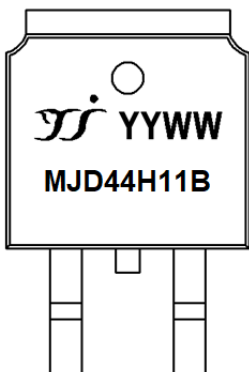
TO-252		
Dim	Min	Max
A	6.500	6.700
B	5.100	5.460
C	1.400	1.800
D	6.000	6.200
E	10.000	10.400
F	2.166	2.366
G	0.660	0.860
H	Φ 1.050	Φ 1.350
I	0.460	0.580
J	2.200	2.400
K	0	0.300
L	0.890	2.290
M	2.730	3.080
N	0.430	0.580
O	4.20	4.95
P	5.15	5.45
Q	0	0.2

## ■ 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.

MJD44H11B: Product model.



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