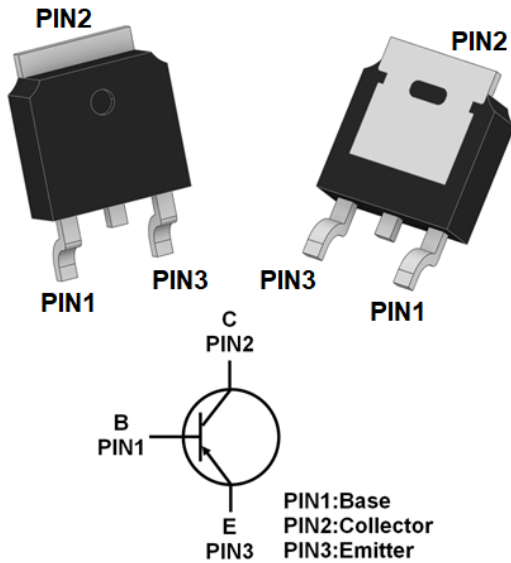


PNP High Power Bipolar Transistor



Features

- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

Applications

- Complement to MJD120
- High DC Current Gain

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			MJD125
Collector-base voltage	V_{CBO}	V	-60
Collector-emitter voltage	V_{CEO}	V	-60
Emitter-base voltage	V_{EBO}	V	-5
Collector current	I_C	A	-8
Power dissipation(Note1)	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

Note1: The data tested by surface mounted on a 40*40*1.1mm heatsink.



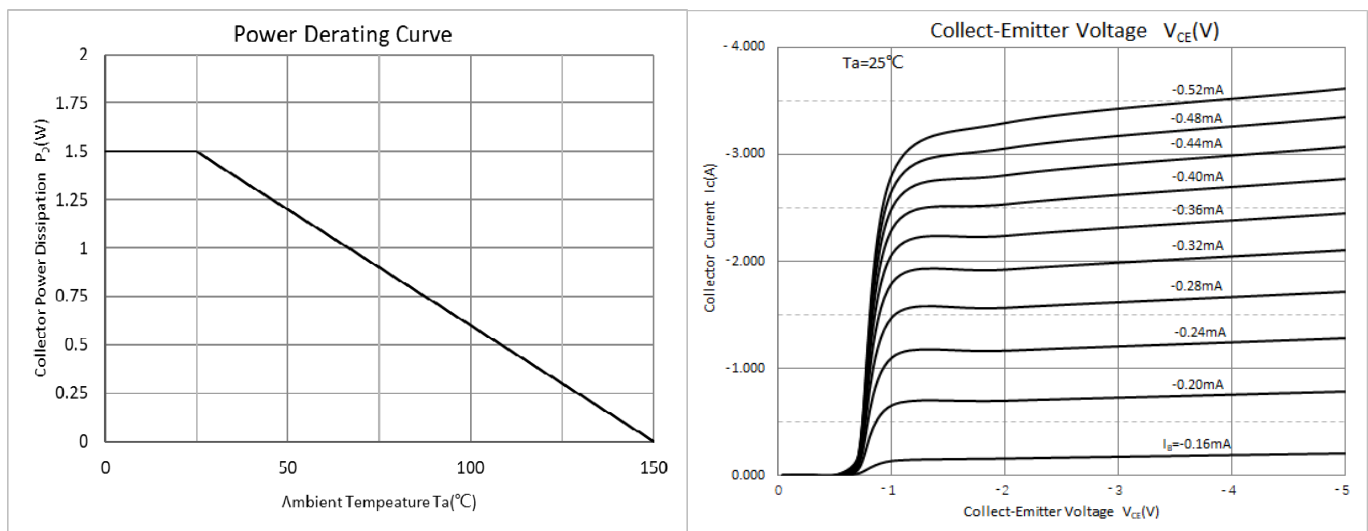
■ Electrical Characteristics (Ta=25°C unless otherwise noted)

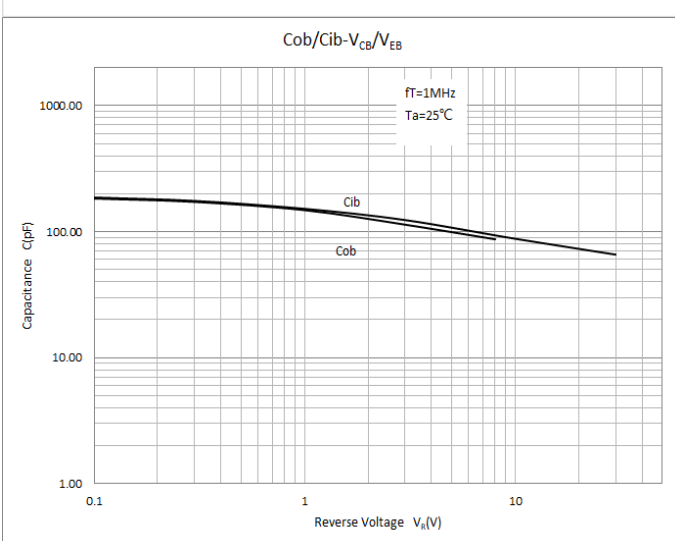
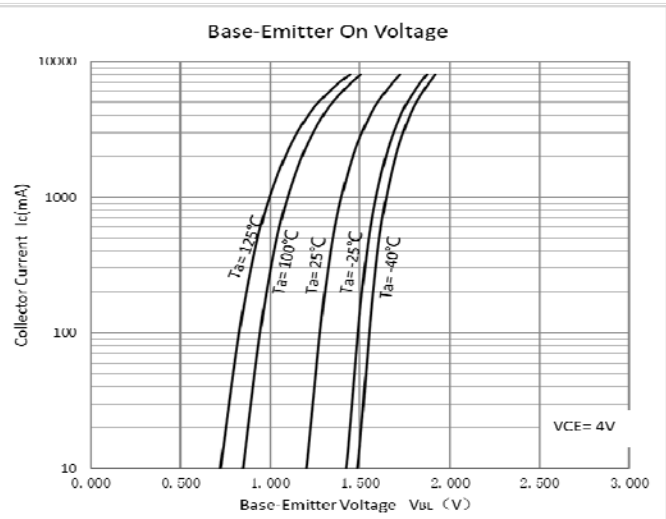
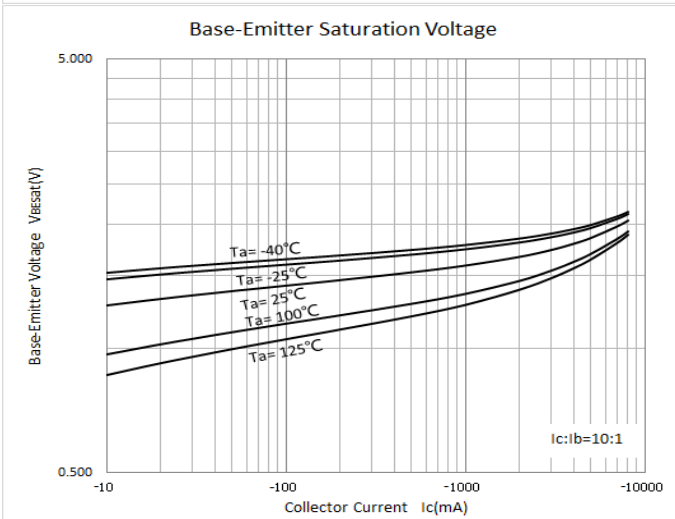
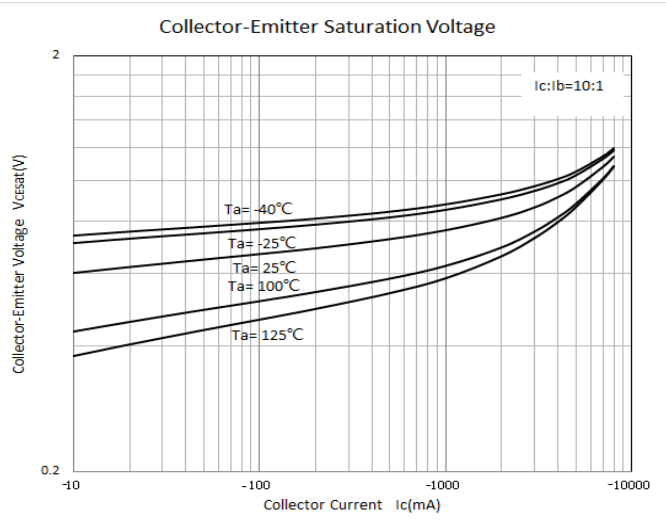
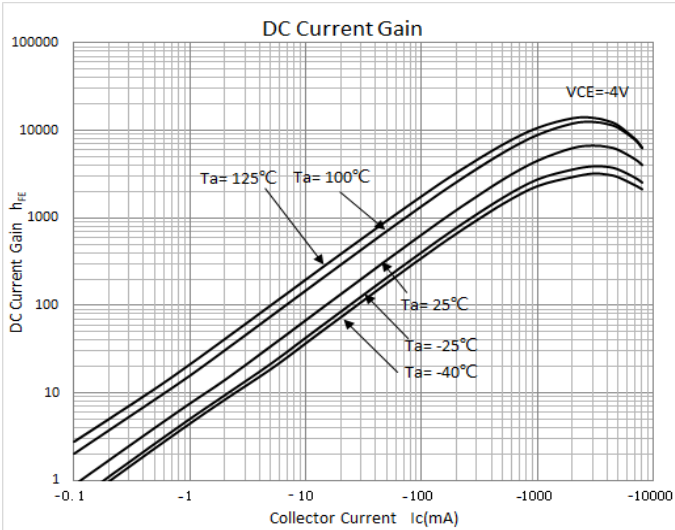
Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C=-1mA, I_E=0$	-60		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C=-30mA, I_B=0$	-60		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E=-3mA, I_C=0$	-5		
Collector-base cut-off current	I_{CBO}	μA	$V_{CB}=-60V$			-10
Collector cutoff current	I_{CEO}	μA	$V_{CE}=-50V$			-10
Emitter-base cut-off current	I_{EBO}	mA	$V_{EB}=-5V$			-2
DC current gain	h_{FE}		$V_{CE}=-4V, I_C=-4A$	1000		12000
			$V_{CE}=-4V, I_C=-8A$	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=-4A, I_B=-16mA$			-2.0
			$I_C=-8A, I_B=-80mA$			-4.0
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=-8A, I_B=-80mA$			-4.5
Base-Emitter Voltage	V_{BE}	V	$V_{CE}=-4V, I_C=-4A$			-2.8
Collector-base output capacitance	Cob	pF	$V_{CB}=-10V, I_E=0A, f=1MHz$		60	

■ Ordering Information (Example)

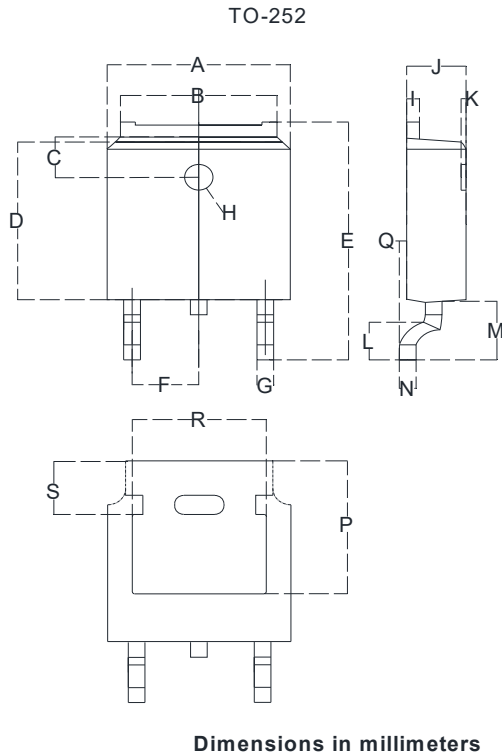
PREFERED P/N	PACKING CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MJD125	F1	2500	2500	25000	13"Reel

■ Characteristics(Typical)



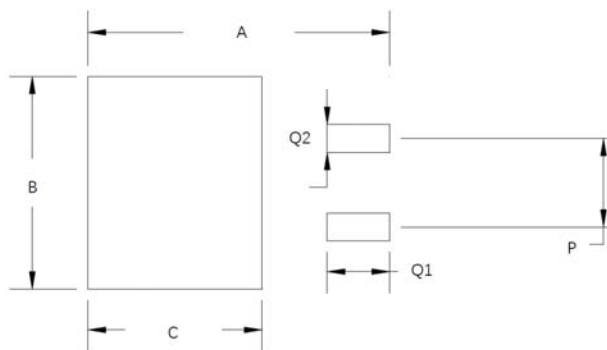


■ TO-252 Package information



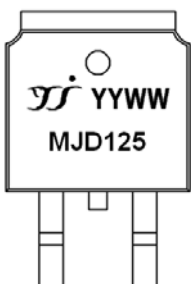
TO-252		
Dim	Min	Max
A	6.500	6.700
B	5.100	5.460
C	1.400	1.800
D	6.000	6.200
E	10.000	10.400
F	2.166	2.366
G	0.660	0.860
H	Φ 1.050	Φ 1.350
I	0.460	0.580
J	2.200	2.400
K	0	0.300
L	0.890	2.290
M	2.730	3.080
N	0.430	0.580
P	5.15	5.45
Q	0	0.2
R	4.50	5.10
S	1.60	2.40

■ 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.

MJD125: Product model.



Disclaimer

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