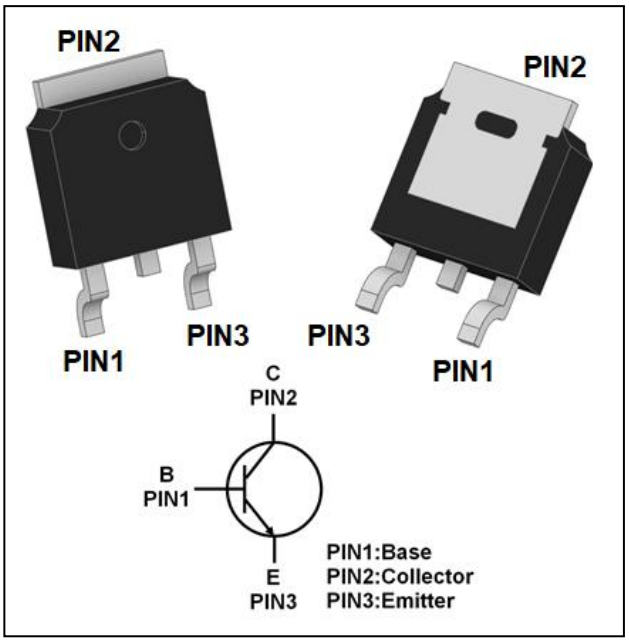
NPN High Power Bipolar Transistor



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℃ 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}	℃/W	83.3
Junction temperature	T_j	℃	-55 to +150
Storage temperature	T_{STG}	℃	-55 to +150

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

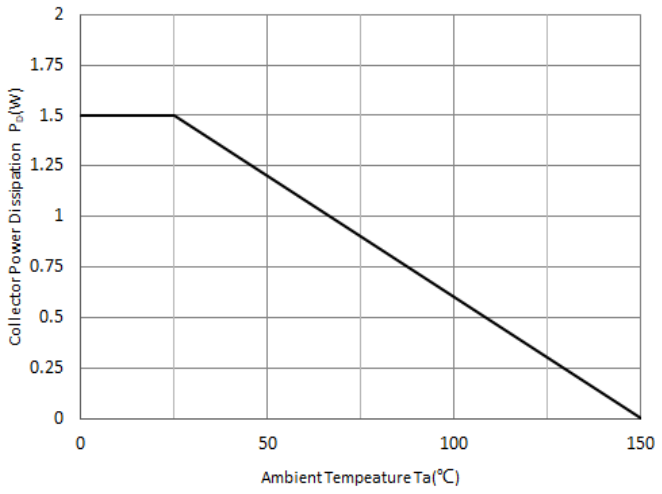
■ Electrical Characteristics (Ta=25℃ unless otherwise noted)

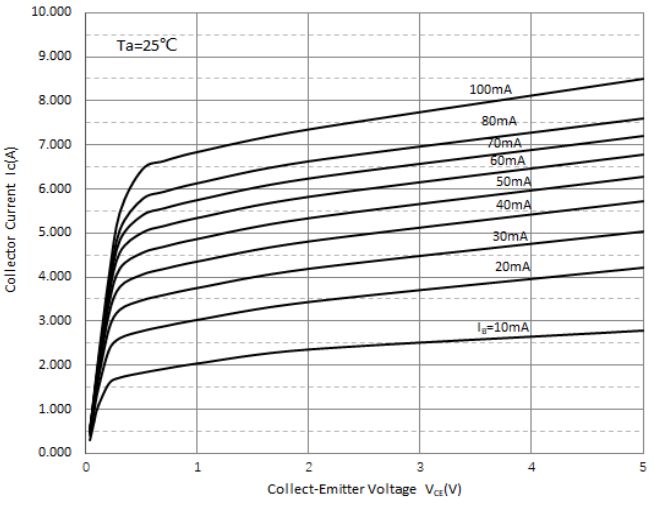
Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	I_C= 100uA, I_E=0	100		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	I_C= 1mA, I_B=0	80		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	I_E= 100uA, I_C=0	6		
Collector-base cut-off current	I_{CBO}	uA	V_{CB}=100V			1
Collector cutoff current	I_{CES}	uA	V_{CE}=64V			1
Emitter-base cut-off current	I_{EBO}	uA	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)

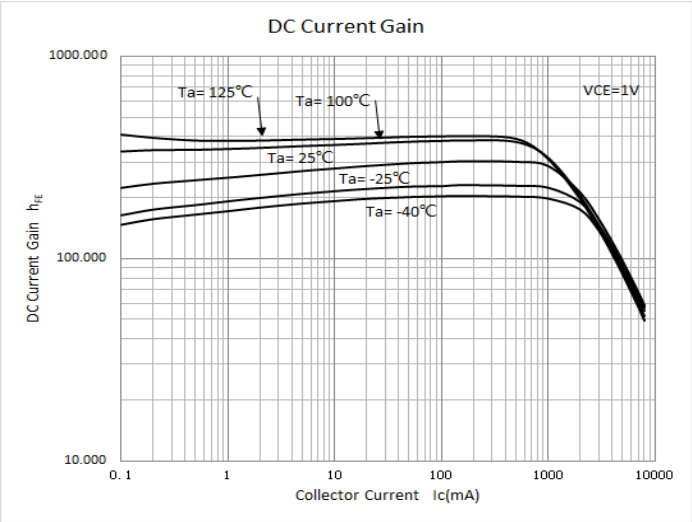
PREFERED P/N	PACKING CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MJD44H11B	F2	2500	5000	25000	13”Reel

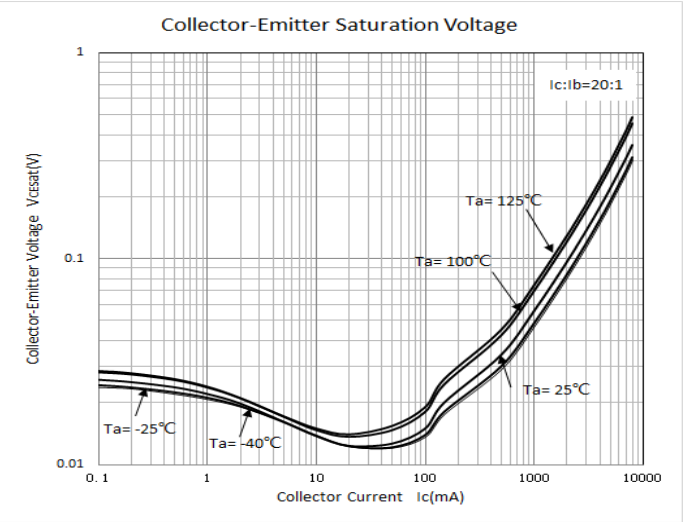
■ Characteristics(Typical)

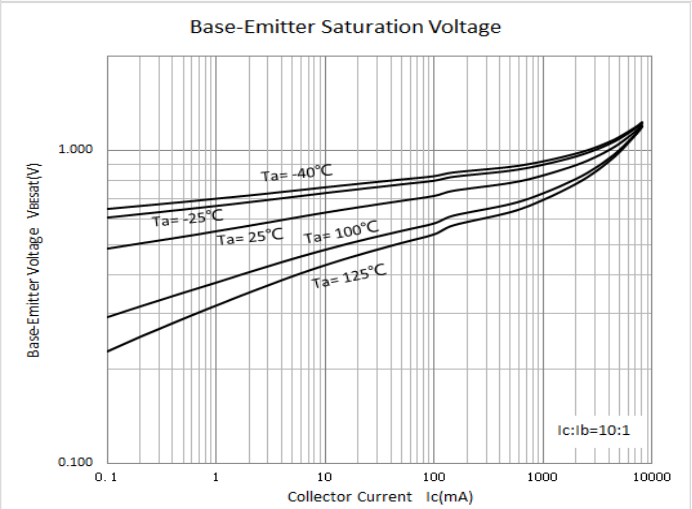


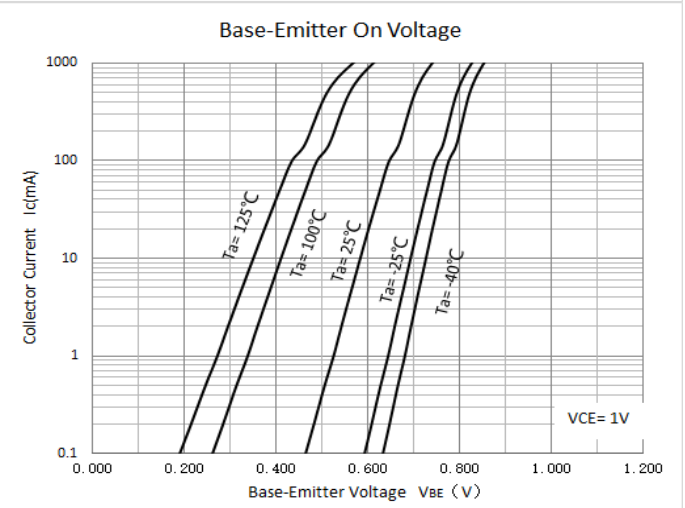


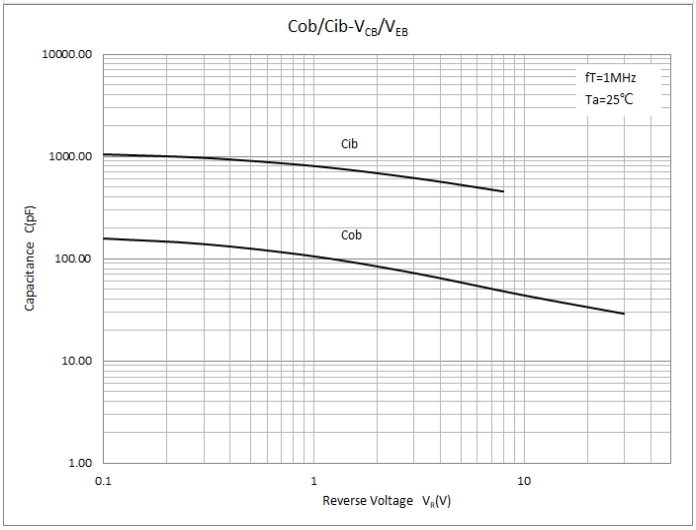
■ Characteristics(Typical)



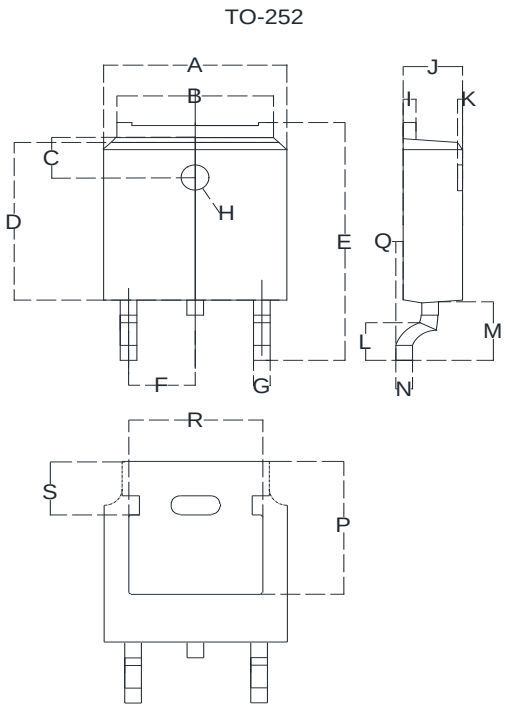








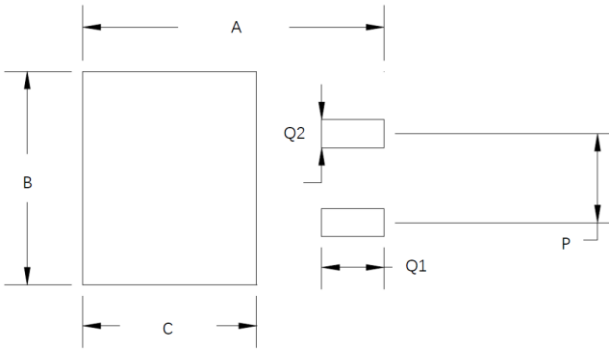
■ TO-252 Package information



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	Φ1.050	Φ1.350
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

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