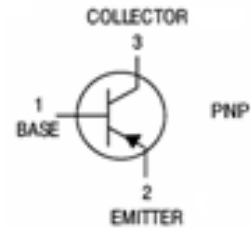


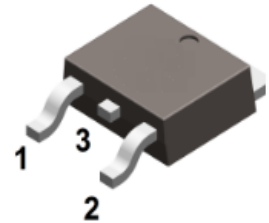
Features

- Low collector-emitter saturation voltage
- Fast switching speeds
- Complement to MJD44H11
- Compliant to Halogen-free



Mechanical Data

- Case: TO-252AB
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208
- Marking Code: MJD45H11



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

Parameter	Symbol	Value	Unit
Collector-Emitter Breakdown Voltage	V_{CEO}	-80	V
Emitter-Base Breakdown Voltage	V_{EBO}	-5	V
Collector Current (Continuous)	I_C	-8	A
Collector Current (Pulse)	I_{CM}	-16	A
Power Dissipation ($T_C = 25^\circ\text{C}$)	P_D	20	W
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	51	$^\circ\text{C/W}$
Junction Temperature	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C = -30\text{mA}, I_B = 0$	-80	-	-	V
Collector Cut-off Current	I_{CES}	$V_{CE} = \text{Rated } V_{CEO}, V_{BE} = 0$	-	-	-10	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$	-	-	-50	μA
DC Current Gain	h_{FE}	$V_{CE} = -1\text{V}, I_C = -2\text{A}$	60	-	-	-
		$V_{CE} = -1\text{V}, I_C = -4\text{A}$	40	-	-	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -8\text{A}, I_B = -0.4\text{A}$	-	-	-1	V
Base-emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -8\text{A}, I_B = -0.8\text{A}$	-	-	-1.5	V
Output Capacity	C_{ob}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$	-	230	-	pF
Current-Gain—Bandwidth Product	f_T	$I_C = -0.5\text{A}, V_{CE} = -10\text{V}$ $f = 20\text{MHz}$	-	40	-	MHz

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

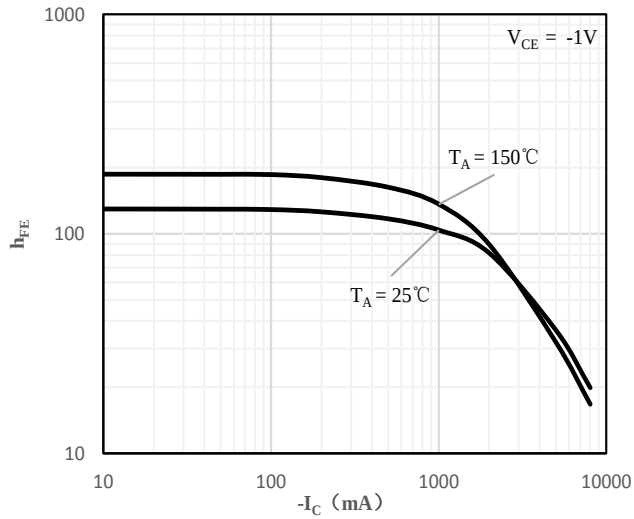


Fig 1 h_{FE} vs. I_C

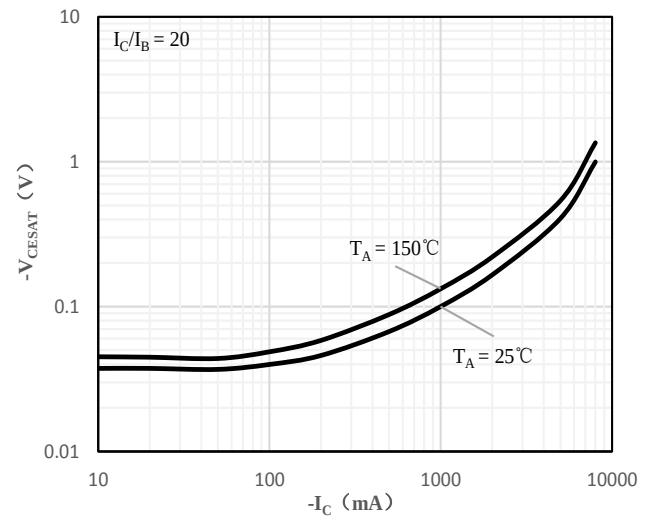


Fig 2 $V_{CE(sat)}$ vs. I_C

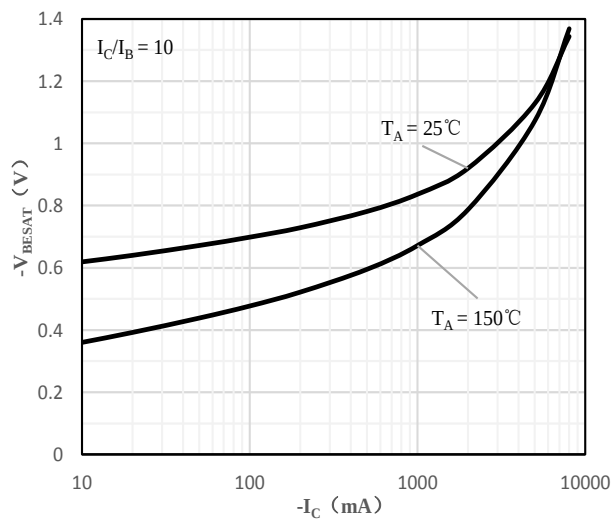


Fig 3 $V_{BE(sat)}$ vs. I_C

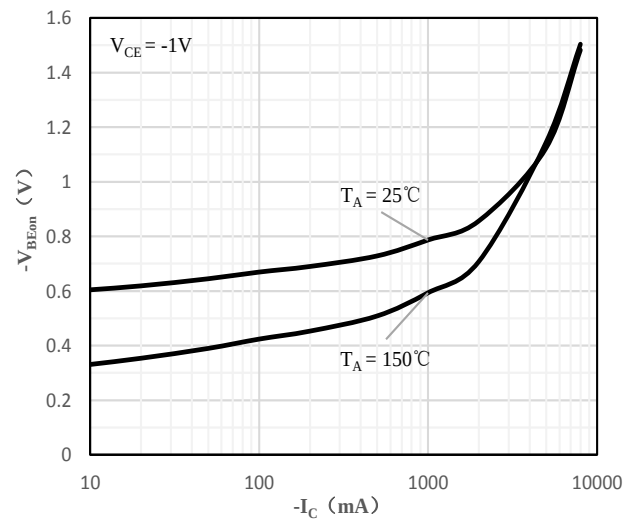
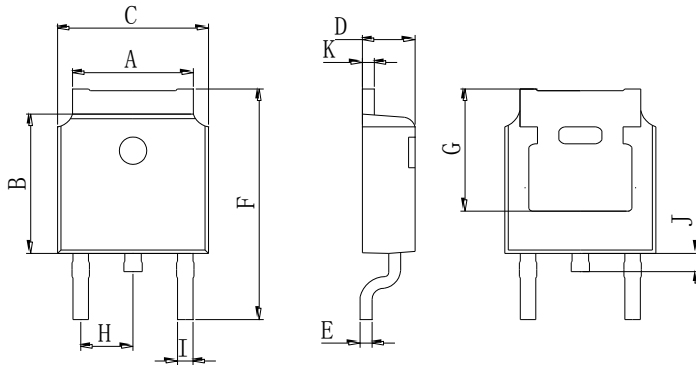


Fig 4 $V_{BE(on)}$ vs. I_C

TO-252AB Package information



Dimensions in millimeters

TO-252AB		
Dimension	Min.	Max.
A	5.05	5.65
B	5.80	6.40
C	6.25	6.85
D	2.20	2.40
E	0.40	0.60
F	9.71	10.31
G	5.05	5.65
H	2.10	2.50
I	0.70	0.90
J	0.50	0.70
K	0.40	0.60

Suggested Pad Layout

