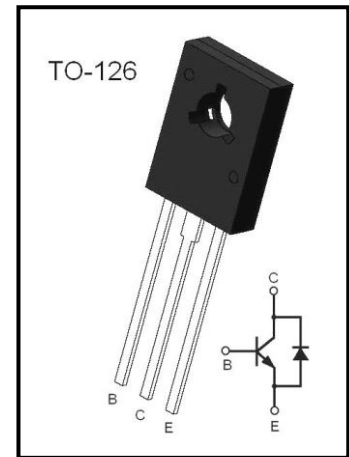


### High Voltage Mode Application

High speed Switching

#### Absolute Maximum Rating (Ta=25°C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV <sub>CB0</sub>	700	V
Collector-Emitter Voltage	BV <sub>CEO</sub>	400	V
Emitter-Base Voltage	BV <sub>EB0</sub>	9	V
Collector Current	I <sub>C</sub>	1.3	A
Collector Power Dissipation	P <sub>C</sub>	1.25	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55~150	°C



#### Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV <sub>CB0</sub>	I <sub>C</sub> = 100μA, I <sub>E</sub> = 0	700			V
Collector-emitter breakdown voltage	BV <sub>CEO</sub>	I <sub>C</sub> = 1mA, I <sub>B</sub> = 0	400			V
Emitter-base breakdown voltage	BV <sub>EB0</sub>	I <sub>E</sub> = 100μA, I <sub>C</sub> = 0	9			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 700V, I <sub>E</sub> = 0			1	mA
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> = 400V, I <sub>B</sub> = 0			10	mA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 9V, I <sub>C</sub> = 0			1	mA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> = 0.5A	8		40	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 0.5A, I <sub>B</sub> = 0.1A I <sub>C</sub> = 1A, I <sub>B</sub> = 0.25A			0.5 1.0	V
Base -emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 0.5A, I <sub>B</sub> = 0.1A I <sub>C</sub> = 1A, I <sub>B</sub> = 0.25A			1.0 1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>B</sub> = 0.1A	8			MHz



### Typical Characteristics

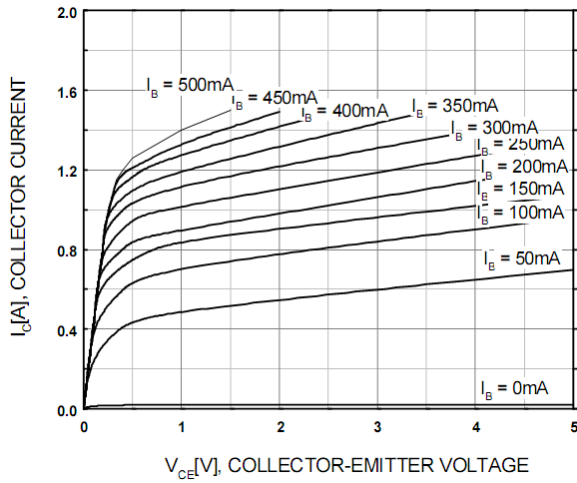


Figure 1. Static Characteristic

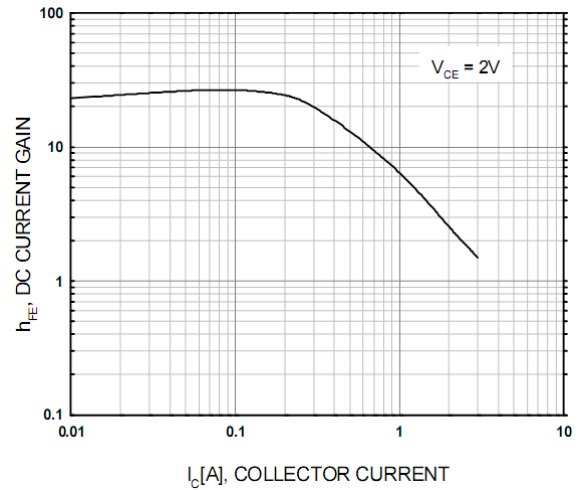


Figure 2. DC current Gain

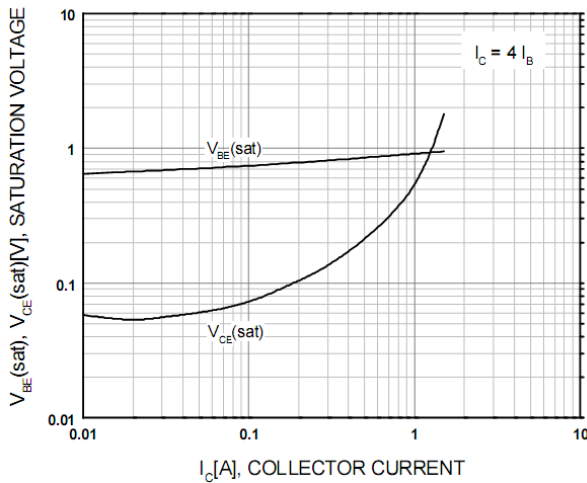


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

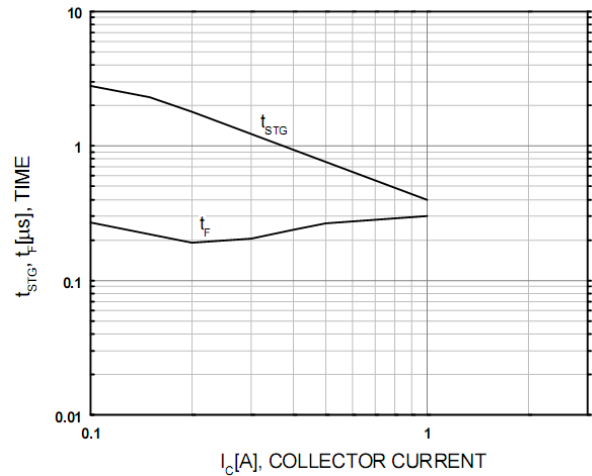


Figure 4. Switching Time

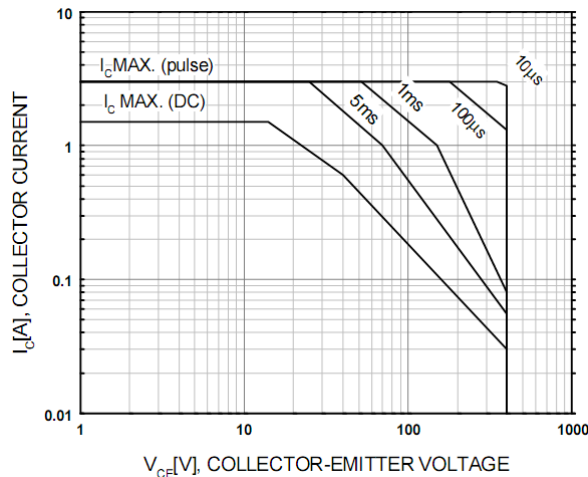


Figure 5. Safe Operating Area

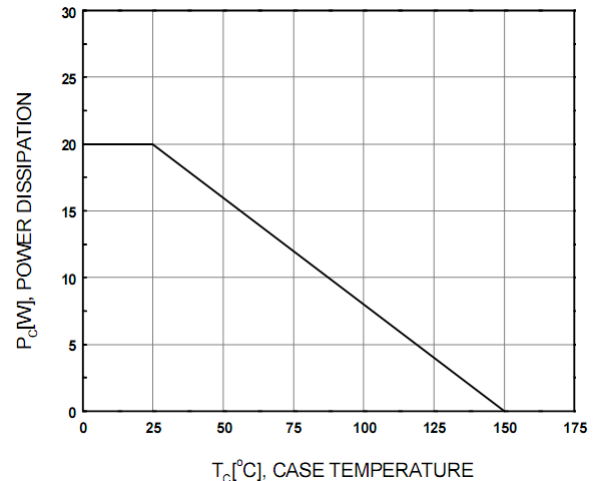
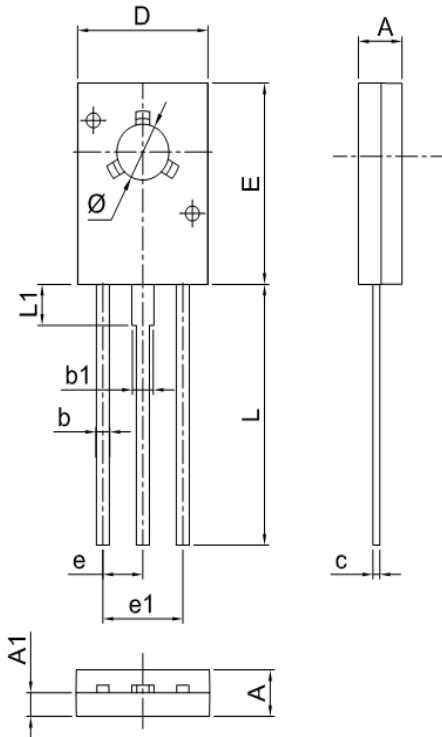


Figure 6. Power Derating

### Package Dimensions (unit:mm)



Symbol	TO-126		
	Min.	Typ	Max.
A	2.40	2.60	2.80
A1	1.00	1.20	1.40
b	0.66	0.76	0.86
b1	1.17	1.27	1.37
c	0.40	0.50	0.60
D	7.30	7.50	7.70
E	10.60	10.80	11.00
e	2.25	2.29	2.33
e1	4.50	4.58	4.66
L	14.00	14.50	15.00
L1	1.90	2.20	2.50
$\Phi$	3.00	3.10	3.20

Package	Packing	Quantity	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-126	Bulk	200pcs/Bag	3000pcs	245×170×100	30,000pcs	525×375×270
TO-126	Tube	60pcs/Tube	2400pcs	560×178×35	24,000pcs	585×385×220