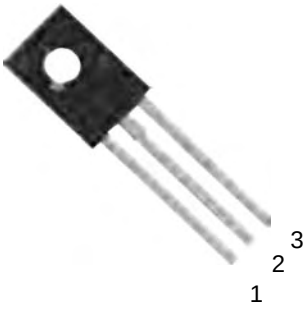
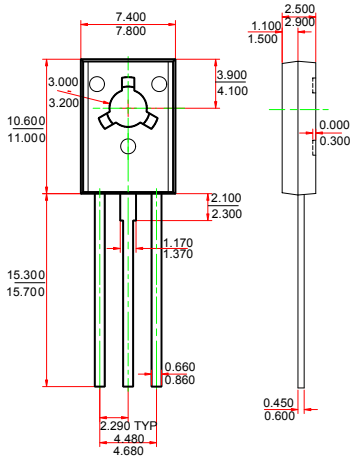
BD136/BD138/BD140(PNP)

TO-126 Transistor



1. EMITTER
2. COLLECTOR
3. BASE

TO-126



Dimensions in inches and (millimeters)

Features

- ✧ **High Current(-1.5A)**
- ✧ **Low Voltage(-80V)**

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value			Units
		BD135	BD137	BD139	
V_{CBO}	**Collector-Base Voltage**	-45	-60	-80	V
V_{CEO}	Collector-Emitter Voltage	-45	-60	-80	V
V_{EBO}	Emitter-Base Voltage	-5			V
I_C	Collector Current -Continuous	-1.5			A
P_C	Collector power dissipation	1.25			W
T_J	Junction Temperature	150			℃
T_{stg}	Storage Temperature	-55-150			℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic=-100μA, I_E=0	BD136	-45			V
			BD138	-60			
			BD140	-80			
Collector-emitter breakdown voltage	$V_{(BR)CEO*}$	Ic=-30mA, I_B=0	BD136	-45			V
			BD138	-60			
			BD140	-80			
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0		-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-30V, I_E=0				-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0				-10	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-2V, I_C=-5mA		25			
	$h_{FE(2)}$	V_{CE}=-2V, I_C=-150mA		40		250	
	$h_{FE(3)}$	V_{CE}=-2V, I_C=-500mA		25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA, I_B=-50mA				-0.5	V
Base-emitter voltage	V_{BE}	V_{CE}=-2V, I_C=-500mA				-1	V

***PULSE TEST**

CLASSIFICATION OF $h_{FE(2)}$

Rank	6	10	16
Range	40-100	63-160	100-250

http://www.luguang.cn **mail:lge@luguang.cn**

Typical Characteristics

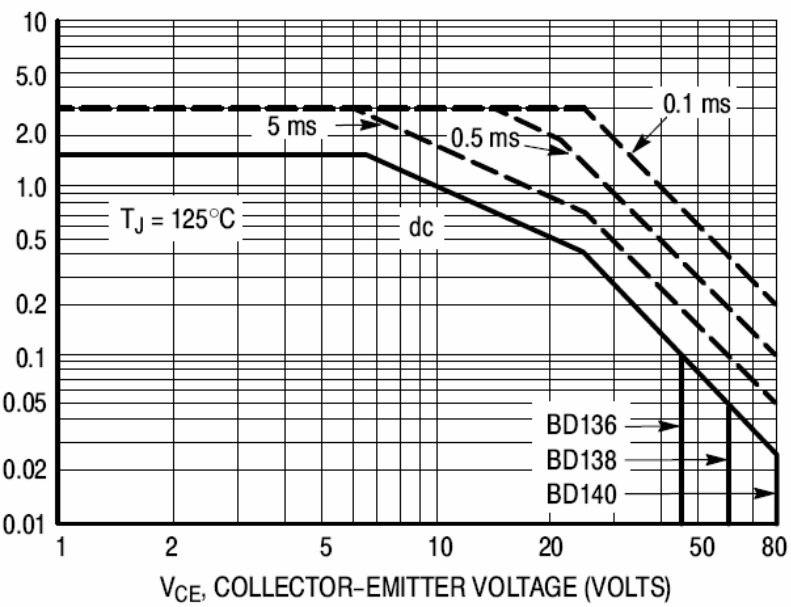


Figure 1. Active–Region Safe Operating Area