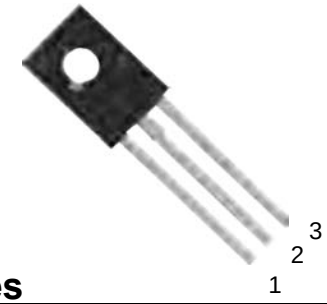
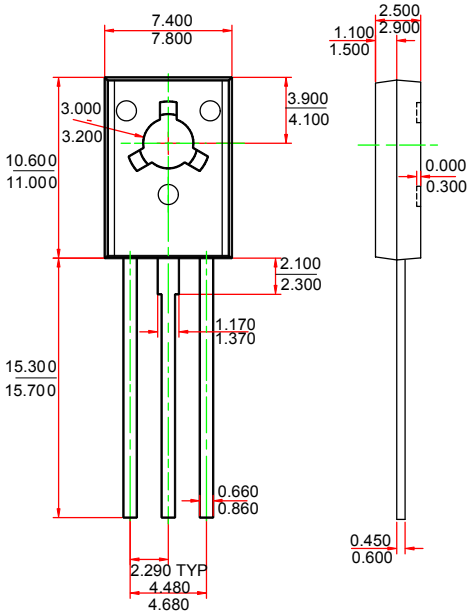
LB123T(NPN)

TO-126 Transistor



1. EMITTER
2. COLLECTOR
3. BASE

TO-126



Dimensions in inches and (millimeters)

Features

- ✧ High voltage, high speed power switch
- ✧ Switch regulators
- ✧ PWM inverter and Motor controls
- ✧ Solenoid and relay drivers
- ✧ Deflection circuits

MAXIMUM RATINGS* T_A=25℃ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	600	v
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current -Continuous	1	A
P_C	Collector Power Dissipation	1.25	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=1mA, I_E=0	600			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA, I_B=0	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=1mA, I_C=0	8			V
Collector cut-off current	I_{CBO}	V_{CB}=600V, I_E=0			10	μA
Emitter cut-off current	I_{EBO}	V_{EB}=8V, I_C=0			10	μA
DC current gain *	$h_{FE(1)}$	V_{CE}=5V, I_C=0.3A	10		50	
	$h_{FE(2)}$	V_{CE}=5V, I_C=0.5A	10			
	$h_{FE(3)}$	V_{CE}=5V, I_C=1A	6			
Collector-emitter saturation voltage*	$V_{CE(sat)}$	I_C=100mA, I_B=10mA			0.8	V
		I_C=300mA, I_B=30mA			0.9	V
Base-emitter saturation voltage*	$V_{BE(sat)}$	I_C=100mA, I_B=10mA			1.2	V
		I_C=300mA, I_B=30mA			1.8	V

***pulse test: pulse width≤380μs, Duty cycle≤2%.**

CLASSIFICATION OF $h_{FE(1)}$

Rank	B1	B2	B3	B4	B5	B6	B7	B8
Range	10-17	13-22	18-27	23-32	28-37	33-42	38-47	43-50
Marking								

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Typical Characteristics