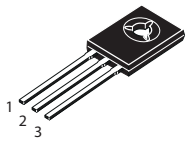
WEITRON

LB123T

NPN Epitaxial Planar Transistors

Pb Lead(Pb)-Free

1. EMITTER
2. COLLECTOR
3. BASE



TO-126

*High voltage, high speed power switch

*Switch regulators

*PWM inverter and Motor controls

*Solenoid and relay drivers

*Deflection circuits

ABSOLUTE MAXIMUM RATINGS(T_a =25°C)

Rating	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	600	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	8	V
Collector Current-Continuous	I_C	1	A
Collector Power Disspation	P_C	1.25	W
Junction Temperature	T_J	150	˚C
Storage Temperature	T_{stg}	-55 - 150	˚C

ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Characteristics	Symbol	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage I_C=1mA,I_E=0	BV_{CBO}	600	-	-	V
Collector-Emitter Breakdown Voltage I_C=10mA,I_B=0	BV_{CEO}	400	-	-	V
Emitter-Base Breakdown Voltage I_C=0,I_E=1mA	BV_{EBO}	8	-	-	V
Collector Cut-Off Current I_E=0,V_{CB}=600V	I_{CBO}	-	-	10	μA
Emitter-Cut-Off Current I_C=0,V_{EB}=8V	I_{EBO}	-	-	10	μA

ON CHARACTERISTICS*

DC Current Gain*					
I_C=0.3A,V_{CE}=5V	$h_{FE(1)}$	10	-	50	-
I_C=0.5A,V_{CE}=5V	$h_{FE(2)}$	10	-	-	-
I_C=1A,V_{CE}=5V	$h_{FE(3)}$	6	-	-	-
Collector-Emitter Saturation Voltage*					
I_C=100mA, I_B=10mA	$V_{CE(sat)}$	-	-	0.8	V
I_C=300mA, I_B=30mA		-	-	0.9	V
Base-emitter saturation voltage					
I_C=100mA, I_B=10mA	$V_{BE(sat)}$	-	-	1.2	V
I_C=300mA, I_B=30mA		-	-	1.8	V

*Pulse Test: Pluse 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

Typical Characteristics

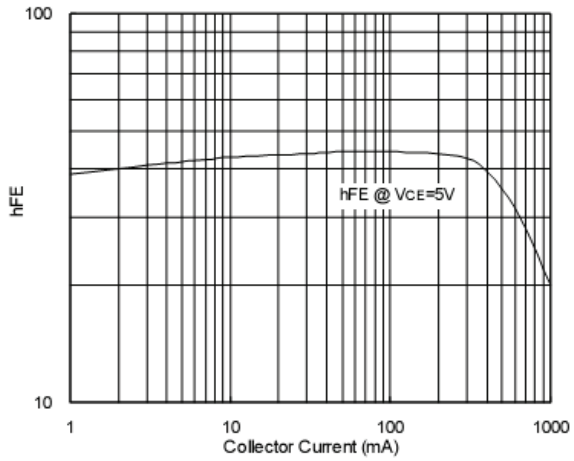


Fig.1 Current Gain - Collector Current

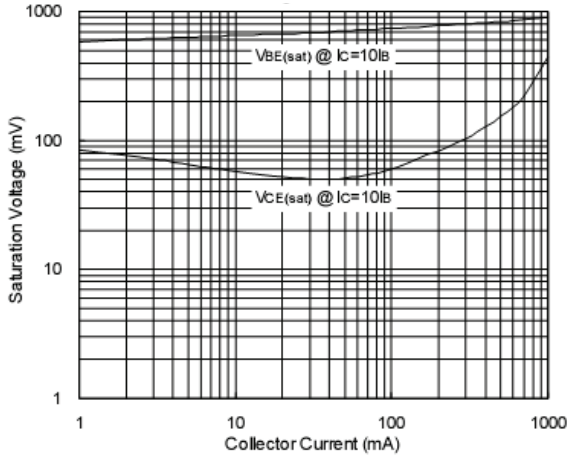


Fig.2 Saturation Voltage - Collector Current

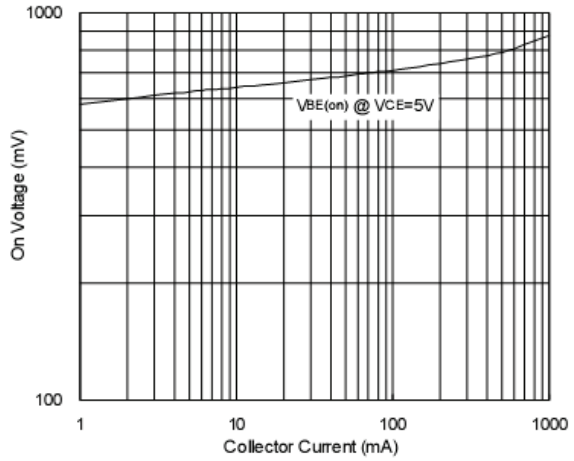


Fig.3 On Voltage - Collector Current

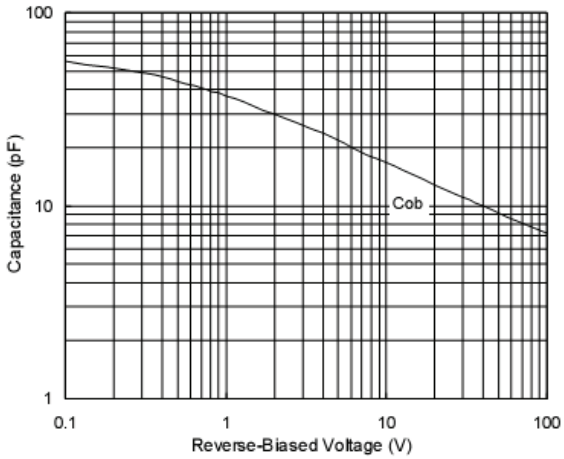


Fig.4 Capacitance - Reverse-Biased Voltage

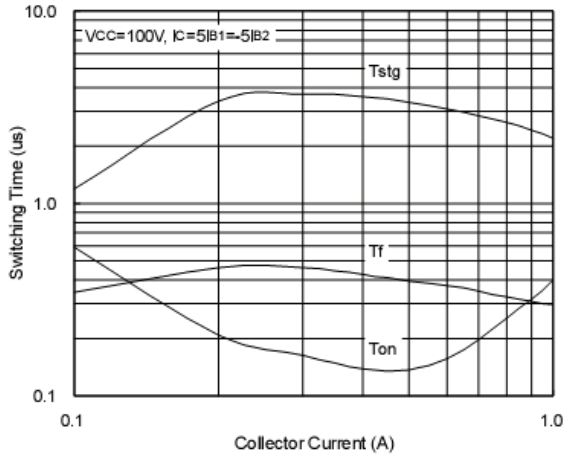


Fig.5 Switching Time - Collector Current

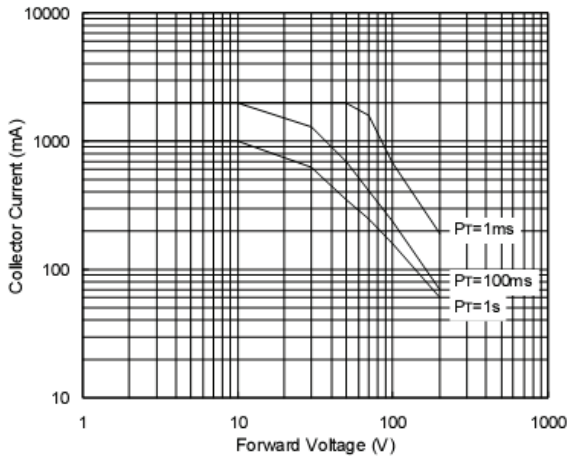
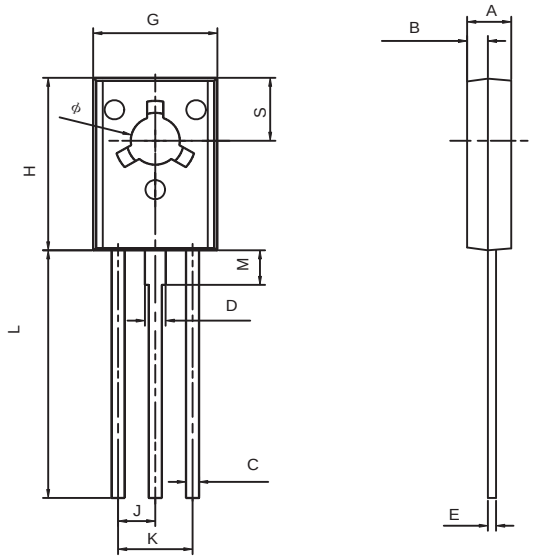


Fig.6 Safe Operating Area

TO-126 Outline Dimensions

unit:mm



TO-126		
Dim	Min	**MAX**
A	2.500	2.900
B	1.100	1.500
C	0.660	0.860
D	1.170	1.370
E	0.450	0.600
G	7.400	7.800
H	10.600	11.000
J	2.290TYP	
K	4.480	4.680
L	15.300	15.700
M	2.100	2.300
S	3.900	4.100
φ	3.000	3.200