



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

LB122T

TECHNICAL SPECIFICATIONS OF NPN TRIPLE DIFFUSED PLANAR TRANSISTOR

Description

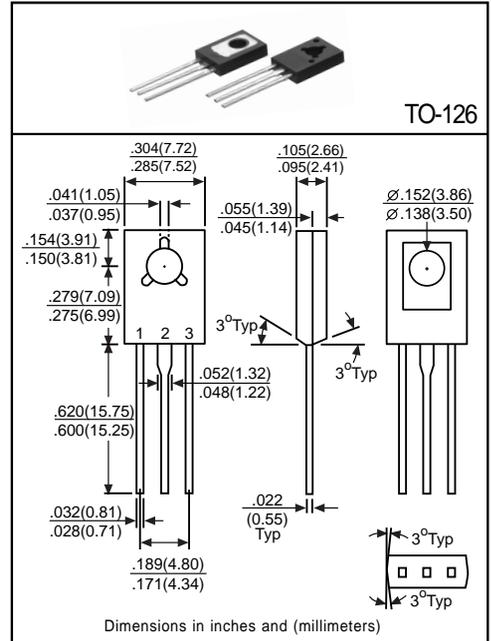
Designed for use in medium power switching applications.

Pinning

- 1 = Emitter
- 2 = Collector
- 3 = Base

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	600	V
Collector-Emitter Voltage	V _{CEO}	400	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current (DC)	I _C	800	mA
Collector Current (pulse)	I _C	1600	mA
Base Current (DC)	I _B	100	mA
Base Current (pulse)	I _B	200	mA
Total Power Dissipation (T _C =25°C)	P _D	20	W
Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-55 to +150	°C



Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV _{CB0}	600	-	-	V	I _C =100μA
Collector-Emitter Breakdown Voltage	BV _{CEO}	400	-	-	V	I _C =10mA
Emitter-Base Breakdown Voltage	BV _{EBO}	6	-	-	V	I _E =10μA
Collector Cutoff Current	I _{CBO}	-	-	10	μA	V _{CB} =600V
	I _{CEO}	-	-	10	μA	V _{CE} =400V
Emitter Cutoff Current	I _{EBO}	-	-	10	μA	V _{EB} =6V
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)1}	-	-	0.4	V	I _C =100mA, I _B =20mA
	V _{CE(sat)2}	-	-	0.8	V	I _C =300mA, I _B =60mA
Base-Emitter Saturation Voltage ⁽¹⁾	V _{BE(sat)}	-	-	1	V	I _C =100mA, I _B =20mA
DC Current Gain ⁽¹⁾	h _{FE1}	10	-	40	-	I _C =0.1A, V _{CE} =10V
	h _{FE2}	10	-	-	-	I _C =0.5A, V _{CE} =10V
Turn-Off Time	T _{off}	-	-	0.6	μS	I _C =0.3A, V _{CC} =100V, I _{B1} =-I _{B2} =0.06A

(1) Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

Classification of h_{FE1}

Rank	B1	B2	B3	B4	B5	B6
Range	10~17	13~22	18~27	23~32	28~37	33~40

