



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

LB125E

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

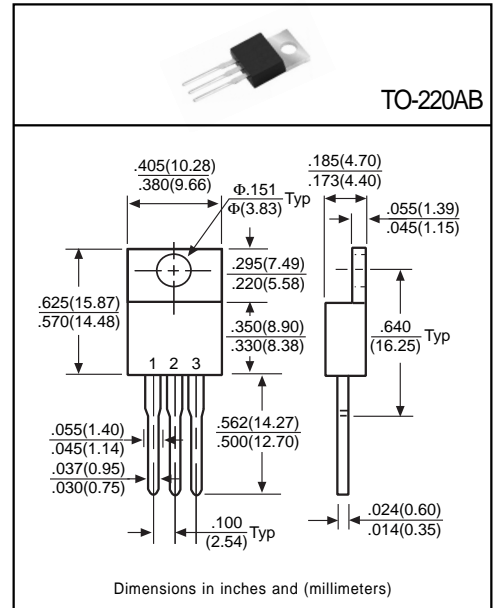
Designed for lighting applications and switch mode power supplies.

Pinning

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

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	600	V
Collector-Emitter Voltage	V _{CE0}	400	V
Emitter-Base Voltage	V _{EB0}	9	V
Collector Current(DC)	I _C	5	A
Collector Current(Pulse)	I _C	8	A
Total Power Dissipation(T _C =25°C)	P _D	40	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 =1mA, I _E =0
Collector-Emitter Breakdown Voltage	BV _{CE0}	400	-	-	V	I _C =10mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EB0}	9	-	-	V	I _E =10mA, I _C =0
Collector Cutoff Current	I _{CB0}	-	-	100	μA	V _{CB} =800V, I _E =0
	I _{CE0}	-	-	100	μA	V _{CE} =400V, I _B =0
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)1}	-	-	0.5	V	I _C =1A, I _B =0.2A
	V _{CE(sat)2}	-	-	0.7	V	I _C =2A, I _B =0.4A
	V _{CE(sat)3}	-	-	1.1	V	I _C =3A, I _B =0.75A
Base-Emitter Saturation Voltage ⁽¹⁾	V _{BE(sat)1}	-	-	1.1	V	I _C =1A, I _B =0.2A
	V _{BE(sat)2}	-	-	1.2	V	I _C =2A, I _B =0.4A
DC Current Gain ⁽¹⁾	h _{FE1}	8	-	35	-	I _C =2A, V _{CE} =5V
	h _{FE2}	10	-	-	-	I _C =10mA, V _{CE} =5V

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

Classification of h_{FE1}

Rank	B1	B2	B3	B4	B5
Range	8~17	15~21	19~25	23~31	29~35