



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

BD237D

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

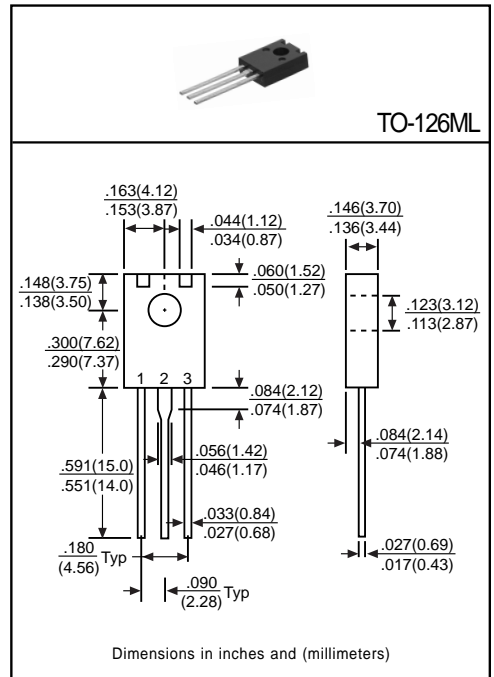
Designed for medium power linear and switching applications.

Pinning

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

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	100	V
Collector-Emitter Voltage	V _{CEO}	80	V
Emitter-Base Voltage	V _{EB0}	5	V
Collector Current (DC)	I _C	2	A
Collector Current (peak)	I _C	6	A
Total Power Dissipation(T _C =25°C)	P _D	25	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}	100	-	-	V	I _C =1mA
Collector-Emitter Breakdown Voltage	BV _{CEO}	80	-	-	V	I _C =100mA
Emitter-Base Breakdown Voltage	BV _{EB0}	5	-	-	V	I _E =100μA
Collector Cutoff Current	I _{CB0}	-	-	0.1	mA	V _{CB} =100V
Emitter Cutoff Current	I _{EB0}	-	-	1	mA	V _{EB} =5V
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)}	-	-	0.6	V	I _C =1A, I _B =0.1A
Base-Emitter On Voltage ⁽¹⁾	V _{BE(on)}	-	-	1.3	V	I _C =1A, V _{CE} =2V
DC Current Gain ⁽¹⁾	hFE1	40	-	-	-	I _C =150mA, V _{CE} =2V
	hFE2	25	-	-	-	I _C =1A, V _{CE} =2V
Transition Frequency	f _T	3	-	-	MHz	I _C =250mA, V _{CE} =10V, f=100MHz

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