DC COMPONENTS CO., LTD.

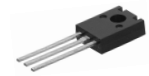
DISCRETE SEMICONDUCTORS

BD237D

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

Designed for medium power linear and switching applications.



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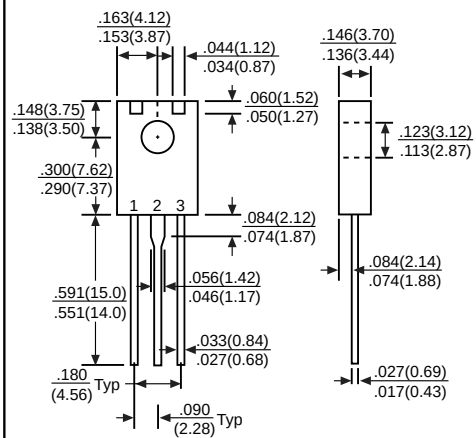

Dimensions in inches and (millimeters)

Pinning

1 = Emitter
2 = Collector
3 = Base

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	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 Volatge	BV_{CBO}	100	-	-	V	I_C=1mA
Collector-Emitter Breakdown Voltage	BV_{CEO}	80	-	-	V	I_C=100mA
Emitter-Base Breakdown Voltage	BV_{EBO}	5	-	-	V	I_E=100μA
Collector Cutoff Current	I_{CBO}	-	-	0.1	mA	V_{CB}=100V
Emitter Cutoff Current	I_{EBO}	-	-	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)	h_{FE1}	40	-	-	-	I_C=150mA, V_{CE}=2V
	h_{FE2}	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%

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