

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	: BD135	45
		: BD137	60
		: BD139	80
V_{CEO}	Collector-Emitter Voltage	: BD135	45
		: BD137	60
		: BD139	80
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current (DC)	1.5	A
I_{CP}	Collector Current (Pulse)	3.0	A
I_B	Base Current	0.5	A
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	12.5	W
P_C	Collector Dissipation ($T_a=25^\circ\text{C}$)	1.25	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$V_{CEO(sus)}$	Collector-Emitter Sustaining Voltage	$I_C = 30\text{mA}, I_B = 0$: BD135			V
			: BD137	45		V
			: BD139	60		V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 30\text{V}, I_E = 0$			0.1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 5\text{V}, I_C = 0$				

h_{FE} Classification

Typical Characteristics

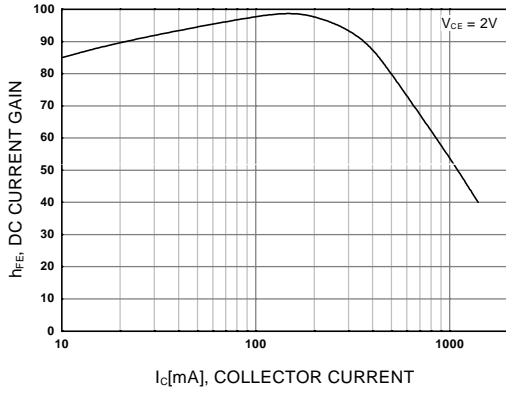


Figure 1. DC current Gain

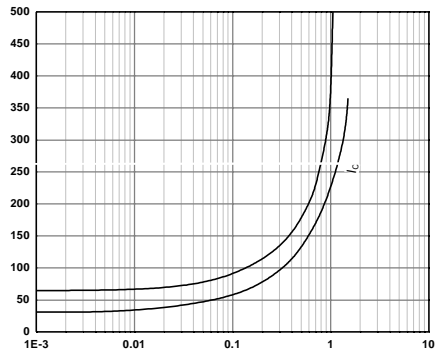


Figure 2. Collector-Emitter Saturation Voltage

Figure 3. Base-Emitter Voltage

Figure 4. Safe Operating Area

Figure 5. Power Derating

Package Dimensions

TO-126

BD135/137/139



Dimensions in Millimeters

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