

BD434/436/438

Medium Power Linear and Switching Applications

• Complement to BD433, BD435 and BD437 respectively



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $\rm T_{C} = 25^{\circ}C$ unless otherwise noted

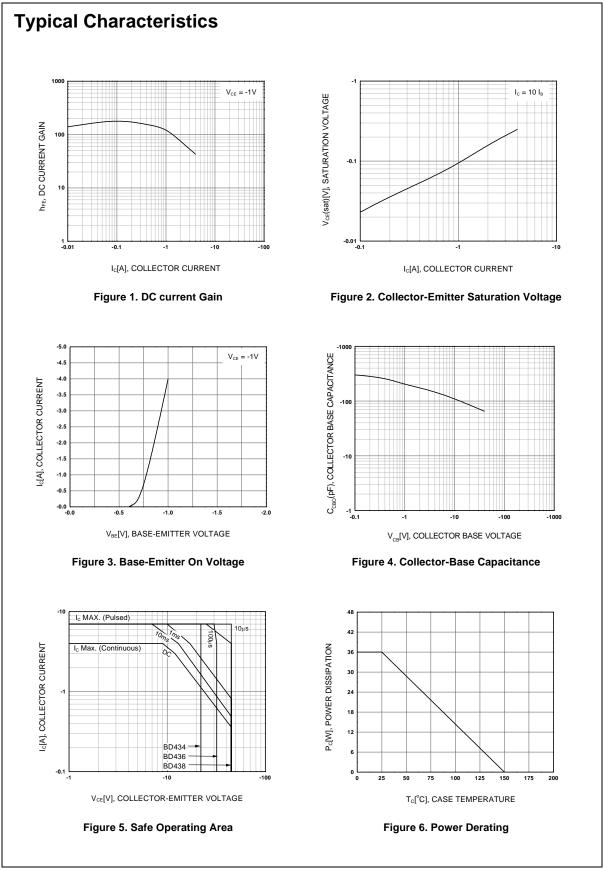
Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage		
	: BD434	- 22	V
	: BD436	- 32	V
	: BD438	- 45	V
V _{CES}	Collector-Emitter Voltage		
	: BD434	- 22	V
	: BD436	- 32	V
	: BD438	- 45	V
V _{CEO}	Collector-Emitter Voltage		
	: BD434	- 22	V
	: BD436	- 32	V
	: BD438	- 45	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I _C	Collector Current (DC)	- 4	Α
I _{CP}	*Collector Current (Pulse)	- 7	Α
I _B	Base Current	- 1	Α
P _C	Collector Dissipation (T _C =25°C)	36	W
TJ	Junction Temperature	150	°C
T _{STG}	Storage Temperature	- 65 ~ 150	°C

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Electrical (Characteristics ⊤ _{c=2}	25°C unless otherwise noted
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Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
V _{CEO} (sus)	Collector-Emitter Sustaining Voltage					
	: BD434	$I_C = -100 \text{mA}, I_B = 0$	- 22			V
	: BD436		- 32			V
	: BD438		- 45			V
I _{CBO}	Collector Cut-off Current	$V_{CB} = -22V, I_{E} = 0$				
	: BD434	$V_{CB} = -32V, I_{E} = 0$			- 100	μΑ
	: BD436	$V_{CB} = -45V, I_{E} = 0$			- 100	μΑ
	: BD438				- 100	μΑ
I _{CEO}	Collector Cut-off Current					
	: BD434	$V_{CE} = -22V, V_{BE} = 0$			- 100	μΑ
	: BD436	$V_{CE} = -32V, V_{BE} = 0$			- 100	μΑ
	: BD438	$V_{CE} = -45V, V_{BE} = 0$			- 100	μΑ
I _{EBO}	Emitter Cut-off Current	$V_{EB} = -5V, I_{C} = 0$			- 1	mA
h _{FE}	* DC Current Gain					
. –	: BD434/436	$V_{CE} = -5V, I_{C} = -10mA$	40	140		
	: BD438		30	140		
	: ALL DEVICE	$V_{CE} = -1V, I_{C} = -500 \text{mA}$	85	140		
	: BD434/436	$V_{CE} = -1V, I_{C} = -2A$	50			
	: BD438		40			
V _{CE} (sat)	* Collector-Emitter Saturation Voltage					
	: BD434	$I_C = -2A$, $I_B = -0.2A$		- 0.2	- 0.5	V
	: BD436			- 0.2	- 0.5	V
	: BD438			- 0.2	- 0.6	V
V _{BE} (on)	* Base-Emitter ON Voltage					
	: BD434	$V_{CE} = -1V, I_{C} = -2A$			- 1.1	V
	: BD436				- 1.1	V
	: BD438				- 1.2	V
f _T	Current Gain Bandwidth Product	$V_{CE} = -1V, I_{C} = -250 \text{mA}$	3			MHz

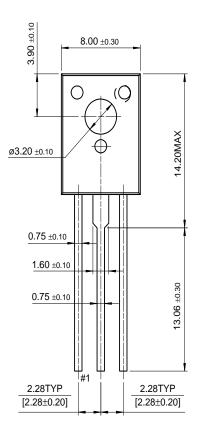
^{*} Pulse Test: PW=300µs, duty Cycle=1.5% Pulsed

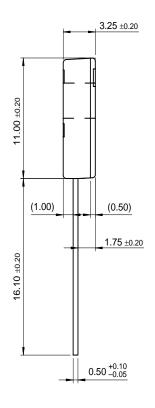


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Package Demensions

TO-126





Dimensions in Millimeters

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