

BD234/236/238

Medium Power Linear and Switching Applications

• Complement to BD 233/235/237 respectively



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage		
	: BD234	- 45	V
	: BD236	- 60	V
	: BD238	- 100	V
V _{CEO}	Collector-Emitter Voltage		
	: BD234	- 45	V
	: BD236	- 60	V
	: BD238	- 80	V
V _{CER}	Collector-Emitter Voltage		
	: BD234	- 45	V
	: BD236	- 60	V
	: BD238	- 100	V
V _{EBO}	Emitter-Base Voltage	- 5	V
l _C	Collector Current (DC)	- 2	А
I _{CP}	*Collector Current (Pulse)	- 6	А
P _C	Collector Dissipation (T _C =25°C)	25	W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	- 65 ~ 150	°C

Electrical Characteristics $T_C=25$ °C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
V _{CEO} (sus)	* Collector-Emitter Sustaining Voltage					
	: BD234	$I_C = -100 \text{mA}, I_B = 0$	- 45			V
	: BD236		- 60			V
	: BD238		- 80			V
I _{CBO}	Collector Cut-off Current					
	: BD234	$V_{CB} = -45V, I_{E} = 0$			- 100	μΑ
	: BD236	$V_{CB} = -60V, I_{E} = 0$			- 100	μΑ
	: BD238	$V_{CB} = -100V, I_{E} = 0$			- 100	μΑ
I _{EBO}	Emitter Cut-off Current	$V_{EB} = -5V, I_{C} = 0$			- 1	mA
h _{FE}	* DC Current Gain	$V_{CE} = -2V, I_{C} = -150mA$	40			
		$V_{CE} = -2V, I_{C} = -1A$	25			
V _{CE} (sat)	* Collector-Emitter Saturation Voltage	I _C = -1A , I _B = -0.1A			- 0.6	V
V _{BE} (on)	* Base-Emitter ON Voltage	V _{CE} = - 2V, I _C = - 1A			- 1.3	V
f⊤	Current Gain Bandwidth Product	$V_{CF} = -10V, I_{C} = -250mA$	3			MHz

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Typical Characteristics

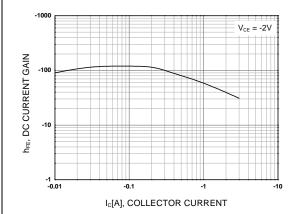


Figure 1. DC current Gain

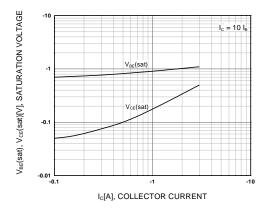


Figure 2. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

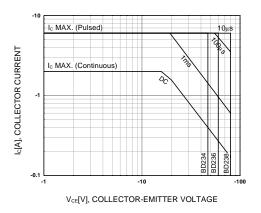


Figure 3. Safe Operating Area

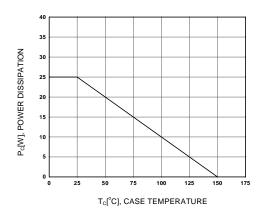
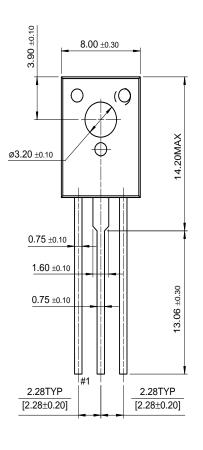
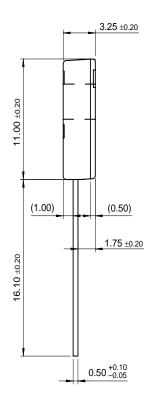


Figure 4. Power Derating

TO-126





Dimensions in Millimeters

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