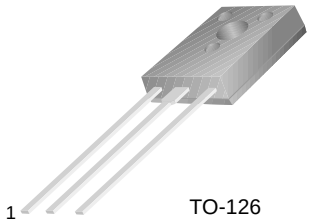
FAIRCHILD
SEMICONDUCTOR®

BD157/158/159

Low Power Fast Switching Output Stages

- For T.V Radio Audio Output Amplifiers



TO-126

1. Emitter 2.Collector 3.Base

NPN Epitxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter		Value	Units
V_{CBO}	Collector-Base Voltage	: BD157	275	V
		: BD158	325	V
		: BD159	375	V
V_{CEO}	Collector-Emitter Voltage	: BD157	250	V
		: BD158	300	V
		: BD159	350	V
V_{EBO}	Emitter-Base Voltage		5	V
I_C	Collector Current (DC)		0.5	A
I_{CP}	*Collector Current (Pulse)		1.0	A
I_B	Base Current		0.25	A
P_C	Collector Dissipation (T_C=25°C)		20	W
T_J	Junction Temperature		50	°C
T_{STG}	Storage Temperature		- 65 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	*Collector-Emitter Breakdown Voltage					
	: BD157	I_C = 1mA, I_B = 0	250			V
	: BD158		300			V
	: BD159		350			V
I_{CBO}	Collector Cut-off Current					
	: BD157	V_{CB} = 275V, I_E = 0			100	µA
	: BD158	V_{CB} = 325V, I_E = 0			100	µA
	: BD159	V_{CB} = 375V, I_E = 0			100	µA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 5V, I_C = 0			100	µA
h_{FE}	* DC Current Gain	V_{CE} = 10V, I_C = 50mA	30		240	

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

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Typical Characteristics

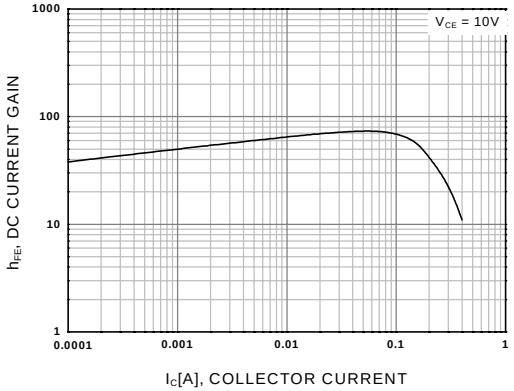


Figure 1. DC current Gain

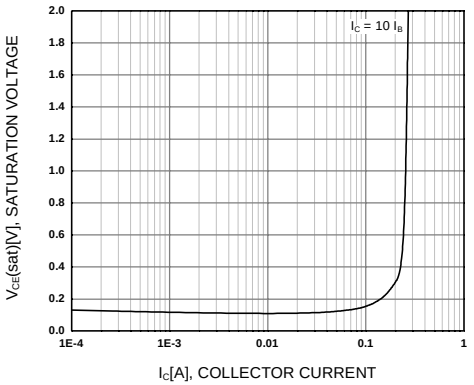


Figure 2. Collector-Emitter Saturation Voltage

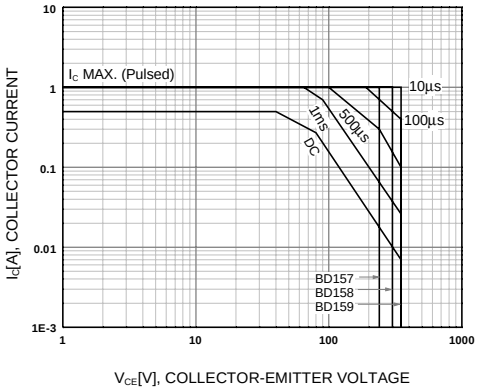


Figure 3. Safe Operating Area

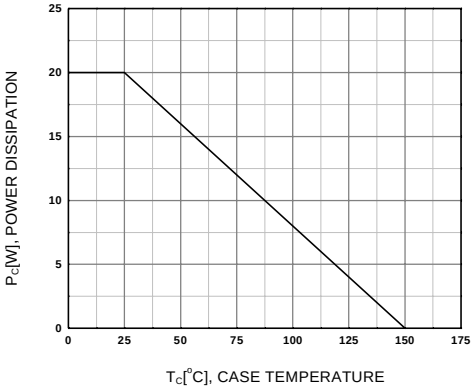
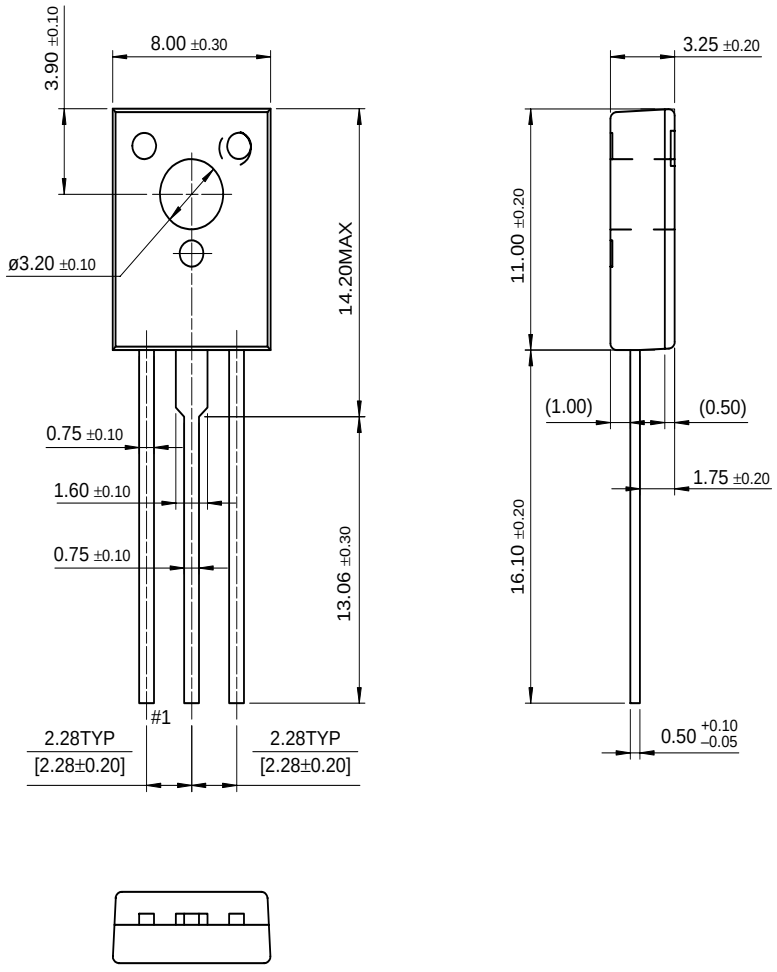


Figure 4. Power Derating

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Package Demensions

TO-126



Dimensions in Millimeters

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