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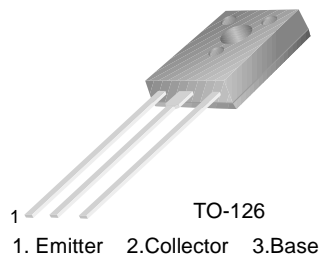
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## BD157/158/159

### Low Power Fast Switching Output Stages

- For T.V Radio Audio Output Amplifiers



### 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 : 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 ( $T_C=25^\circ\text{C}$ )	20	W
$T_J$	Junction Temperature	50	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	- 65 ~ 150	$^\circ\text{C}$

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

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

\* Pulse Test: PW=300 $\mu\text{s}$ , duty Cycle=1.5% Pulsed

## Typical Characteristics

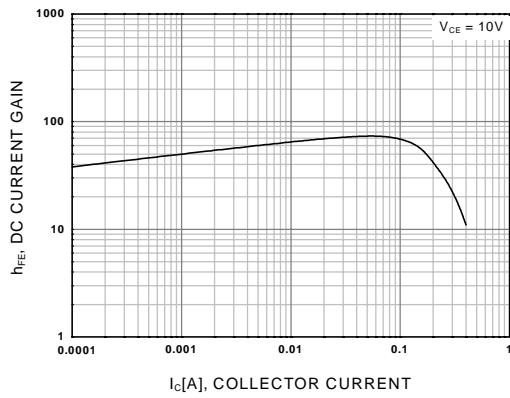


Figure 1. DC current Gain

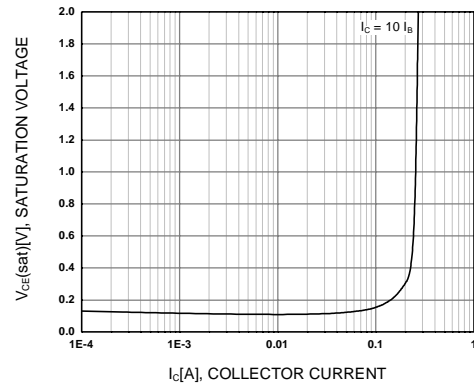


Figure 2. Collector-Emitter Saturation Voltage

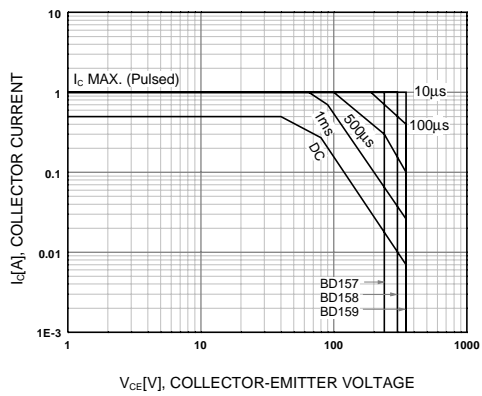


Figure 3. Safe Operating Area

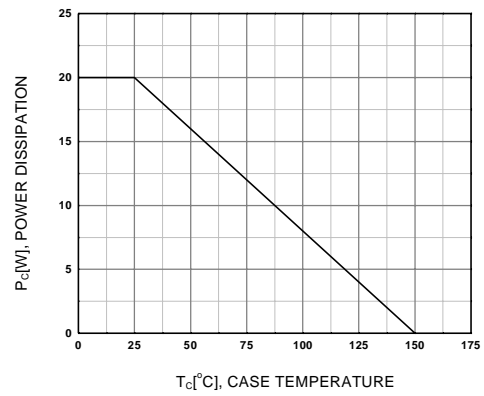
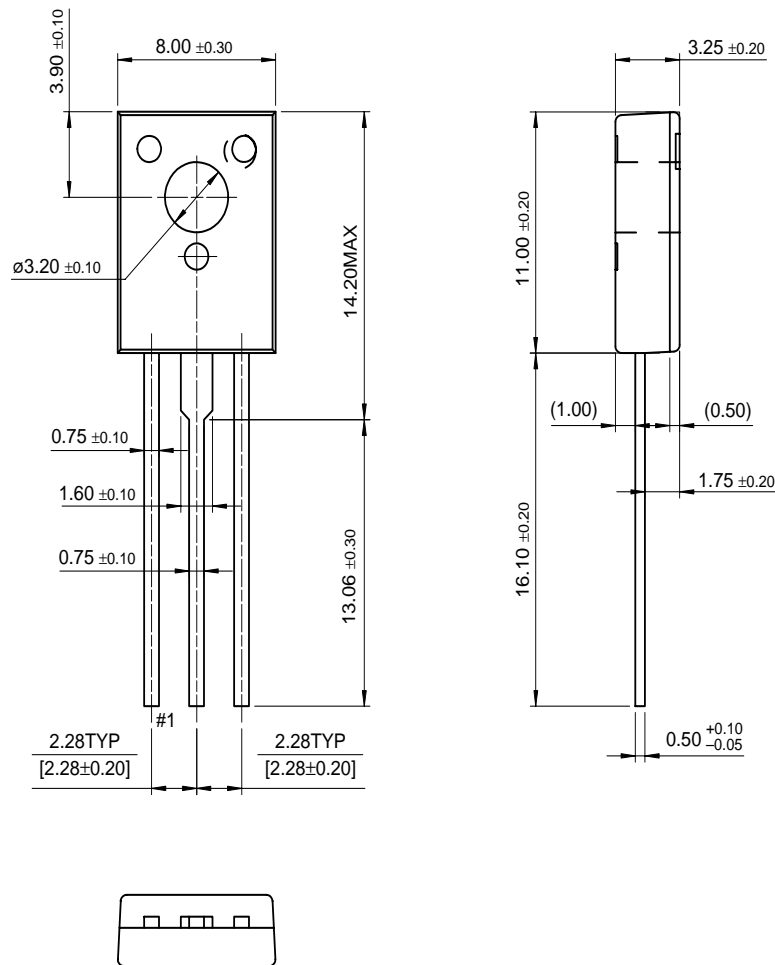


Figure 4. Power Derating

# Package Dimensions

BD157/158/159

## TO-126



Dimensions in Millimeters

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