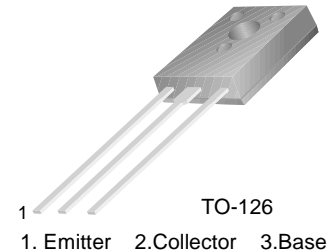


## BD157/158/159

### 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
		: BD158	325
		: BD159	375
$V_{CEO}$	Collector-Emitter Voltage	: BD157	250
		: BD158	300
		: BD159	350
$V_{EBO}$	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	$I_C = 1\text{mA}, I_B = 0$	250			V
			300			V
			350			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = 275\text{V}, I_E = 0$ $V_{CB} = 325\text{V}, I_E = 0$ $V_{CB} = 375\text{V}, I_E = 0$			100	$\mu\text{A}$
					100	$\mu\text{A}$
					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

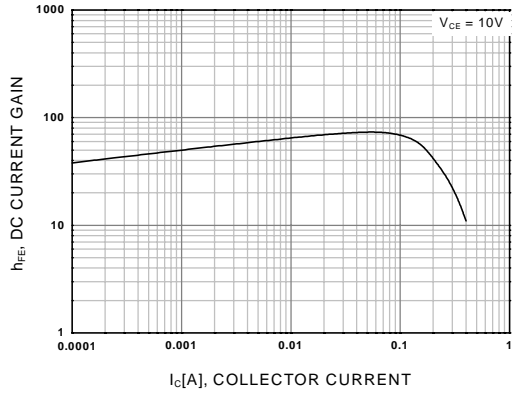


Figure 1. DC current Gain

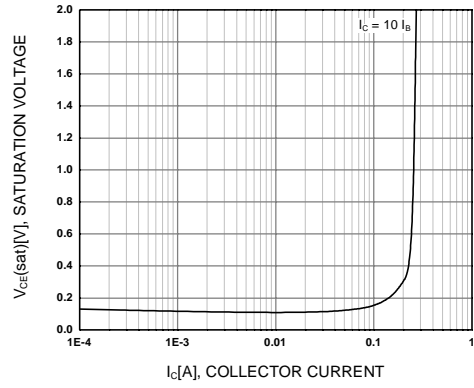


Figure 2. Collector-Emitter Saturation Voltage

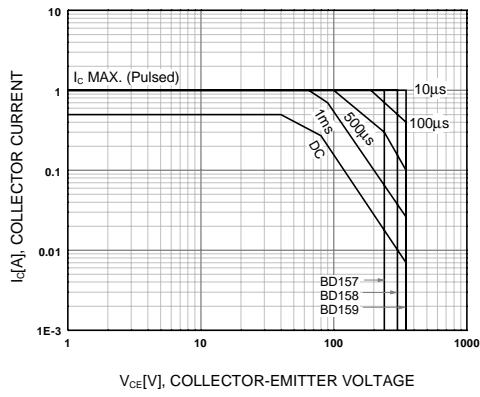


Figure 3. Safe Operating Area

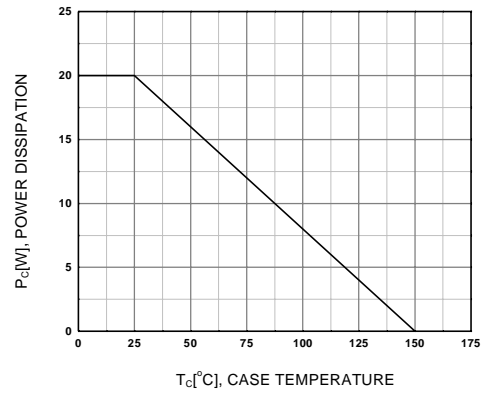


Figure 4. Power Derating

# Package Dimensions

## TO-126

BD157/158/159



Dimensions in Millimeters

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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No Identification Neededii Rf15.1(3546.0062 5w[(T)6]-7(nt)-6(ary )-15.1(dat)-6.6(15..6( )15.1(cont)2(at)9.ft)9( any tn5(c0091 Twe design t)9(if)-6.1