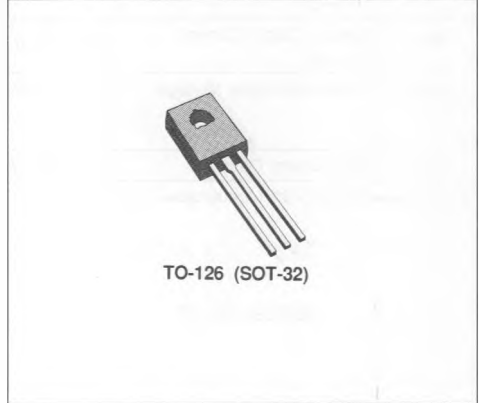




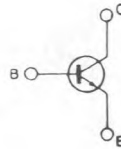
**LOW POWER FAST SWITCHING**

**DESCRIPTION**

The BD157, BD158 and BD159 are silicon epitaxial planar NPN transistors in TO-126 plastic package, intended for applications in low power linear and switching.



**INTERNAL SCHEMATIC DIAGRAM**



**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value			Unit
		BD157	BD158	BD159	
$V_{CBO}$	Collector-base Voltage ( $I_E = 0$ )	275	325	375	V
$V_{CEO}$	Collector-emitter Voltage ( $I_B = 0$ )	250	300	350	V
$V_{EBO}$	Emitter-base Voltage ( $I_C = 0$ )	5			V
$I_C$	Collector Current	0.5			A
$I_{CM}$	Collector Peak Current	1			A
$I_B$	Base Current	0.25			A
$P_{Tot}$	Total Power Dissipation at $T_{case} < 25\text{ }^\circ\text{C}$	20			W
$T_{stg}$	Storage Temperature	- 65 to 150			$^\circ\text{C}$
$T_j$	Junction Temperature	150			$^\circ\text{C}$

**THERMAL DATA**

$R_{th(j-case)}$	Thermal Resistance Junction-case	Max	6.25	°C/W
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**ELECTRICAL CHARACTERISTICS** ( $T_{case} = 25\text{ °C}$  unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{CBO}$	Collector Cutoff Current ( $I_E = 0$ )	$V_{CB} = \text{rated } V_{CBO}$			100	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current ( $I_C = 0$ )	$V_{EB} = 5\text{ V}$			100	$\mu\text{A}$
$V_{CE0}^*$	Collector-emitter Voltage	$I_C = 1\text{ mA}$ for <b>BD157</b> for <b>BD158</b> for <b>BD159</b>	250 300 350			V V V
$h_{FE}^*$	DC Current Gain	$I_C = 50\text{ mA}$ $V_{CE} = 10\text{ V}$	30		240	

\* Pulsed : pulse duration = 300  $\mu\text{s}$ , duty cycle = 1.5 %.