BD157
BD158
BD159

EPITAXIAL PLANAR NPN

ADVANCE DATA

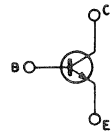
LOW POWER FAST SWITCHING

The BD157, BD158 and BD159 are silicon epitaxial planar NPN transistors in TO-126 plastic package, intended for applications in output stages for television, radio, phonograf and other consumer product.

ABSOLUTE MAXIMUM RATINGS

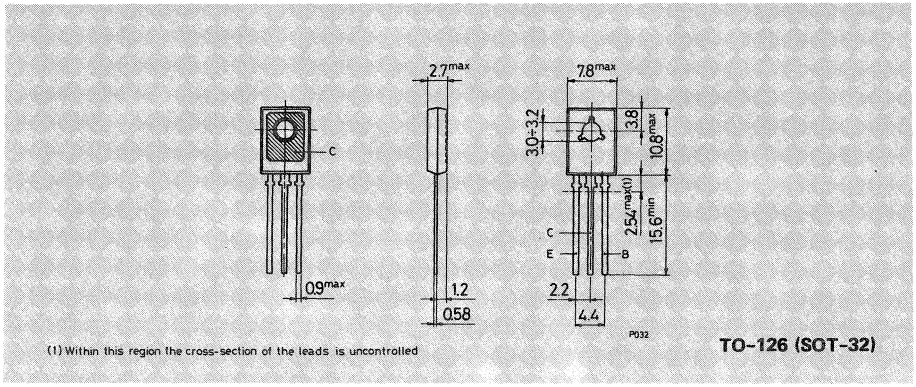
		BD157	BD158	BD159
V_{CBO}	Collector-base voltage ($I_E = 0$)	275V	325V	375V
V_{CEO}	Collector-emitter voltage ($I_B = 0$)	250V	300V	350V
V_{EBO}	Emitter-base voltage ($I_C = 0$)		5V	
I_C	Collector current		0.5A	
I_{CM}	Collector peak current		1A	
I_B	Base current		0.25A	
P_{tot}	Total power dissipation at $T_{case} < 25°C$		20W	
T_{stg}	Storage temperautre		-65 to 150°C	
T_j	Junction temperature		150°C	

INTERNAL SCHEMATIC DIAGRAM



MECHANICAL DATA

Dimensions in mm



(1) Within this region the cross-section of the leads is uncontrolled

TO-126 (SOT-32)

THERMAL DATA

$R_{th\ j\text{-}case}$	Thermal resistance junction-case	max	6.25	°C/W

ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise specified)

Parameter		Test conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector cutoff current (I_E = 0)	V_{CB} = rated V_{CBO}			100	μA
I_{EBO}	Emitter cutoff current (I_C = 0)	V_{BE} = 5V			100	μA
V_{CEO}*	Collecor-emitter voltage	I_C = 1mA for **BD157** for **BD158** for **BD159**	 250 300 350		 	 V V V
h_{FE}*	DC current gain	I_C = 50mA V_{CE} = 10V	30		240	–

* Pulsed: pulse duration = 300μs, duty cycle = 1.5%