

BD336

SILICON PNP POWER DARLINGTON TRANSISTOR

- SGS-THOMSON PREFERRED SALESTYPE
- PNP DARLINGTON
- INTEGRATED ANTIPARALLEL COLLECTOR-EMITTER DIODE

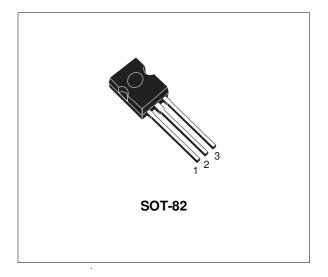
APPLICATIONS

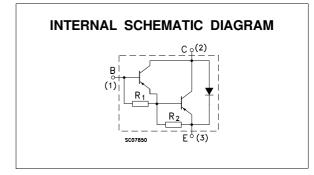
- GENERAL PURPOSE SWITCHING
- GENERAL PURPOSE AMPLIFIERS

DESCRIPTION

The BD336 is a silicon epitaxial-base PNP transistor in Darlingon configuration mounted in SOT-82 plastic package.

It is inteded for use in audio output stages general amplifier and switching applications.





ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
Vсво	Collector-Base Voltage (I _E = 0)	-100	V
VCEO	Collector-Emitter Voltage (I _B = 0)	-100	V
V_{EBO}	Emitter-Base Voltage (I _C = 0)	-5	V
Ι _C	Collector Current	-6	A
I _{CM}	Collector Peak Current (t _p < 10ms)	-10	A
IB	Base Current	-0.15	Α
Ptot	Total Dissipation at $T_c \le 25$ °C	60	W
T _{stg}	Storage Temperature	-65 to 150	°C
Tj	Max. Operating Junction Temperature	150	°C

THERMAL DATA

R _{thj-case} Thermal Resistance Junction-case	Max	2.08	°C/W
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ELECTRICAL CHARACTERISTICS ($T_{case} = 25 \ ^{\circ}C$ unless otherwise specified)

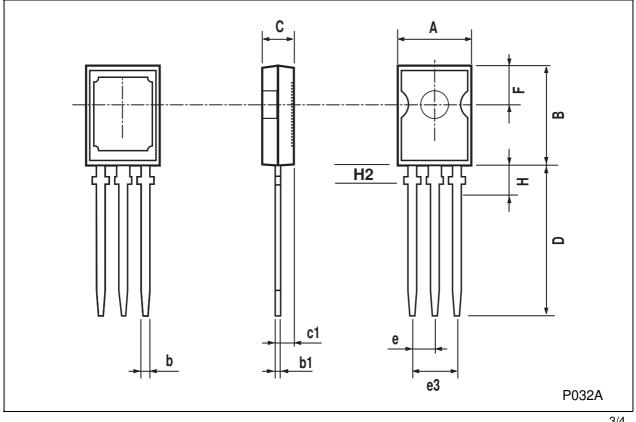
Symbol	Parameter	Test Conditions	Min.	Тур.	Max.	Unit
I _{СВО}	Collector Cut-off Current (I _E = 0)	$V_{CB} = -100 V$ $V_{CB} = -100 V$ $T_{C} = 150 \ ^{\circ}C$			-0.2 -2	mA mA
ICEO	Collector Cut-off Current (I _B = 0)	V _{CE} = -50 V			-0.5	mA
I _{EBO}	Emitter Cut-off Current $(I_C = 0)$	$V_{EB} = -5 V$			-5	mA
V _{CE(sat)} *	Collector-Emitter Saturation Voltage	$I_{\rm C} = -3$ A $I_{\rm B} = -12$ mA			-2	V
$V_{BE}*$	Base-Emitter Voltage	$I_{C} = -3 A$ $V_{CE} = -3 V$			-2.5	V
h _{FE} *	DC Current Gain		750	2700 400		
V_{F}^*	Parallel Diode Forward Voltage	I _F = -3 A		-1.8		V
h _{fe}	Small Signal Current Gain	$I_C = -3 A$ $V_{CE} = -3 V$ $f = 1MHz$		150		
ton	Turn on Time	$I_{C} = -3 A$ $V_{CC} = -30 V$		1	2	μs
toff	Turn off Time	$I_{B1} = -I_{B2} = -12 \text{ mA}$		5	10	μs

* Pulsed: Pulse duration = 300 μ s, duty cycle \leq 1.5 %



SOT-82 MECHANICAL DATA

DIM.	mm		inch			
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
А	7.4		7.8	0.291		0.307
В	10.5		10.8	0.413		0.444
b	0.7		0.9	0.028		0.035
b1	0.49		0.75	0.019		0.030
С	2.4		2.7	0.04		0.106
c1	1.0		1.3	0.039		0.05
D	15.4		16	0.606		0.629
е		2.2			0.087	
e3	4.15		4.65	0.163		0.183
F		3.8			0.150	
Н			2.54		0.100	
H2		2.15			0.084	



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