



TSB772

Low Vce(sat) PNP Transistor

TO-126



1 2 3

Pin assignment:
TO-126
1. Emitter
2. Collector
3. Base

$BV_{CEO} = - 50V$

$I_C = - 3A$

$V_{CE(SAT)}, = - 0.5V(\text{typ.}) @I_C / I_B = - 2A / - 0.1A$

Features

- ◇ Low $V_{CE(SAT)}$.
- ◇ Excellent DC current gain characteristics

Structure

- ◇ Epitaxial planar type.
- ◇ PNP silicon transistor

Ordering Information

Part No.	Packing	Package
TSB772CK	Bulk Pack	TO-126

Absolute Maximum Rating (Ta = 25 °C unless otherwise noted)

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	- 50V	V
Collector-Emitter Voltage	V_{CEO}	- 50V	V
Emitter-Base Voltage	V_{EBO}	- 6	V
Collector Current	DC	- 3	A
	Pulse	- 7 (note 1)	
Collector Power Dissipation	P_D	1.0	W
Operating Junction Temperature	T_J	+150	°C
Operating Junction and Storage Temperature Range	T_{STG}	- 55 to +150	°C

Note: 1. Single pulse, Pw = 2mS

Electrical Characteristics

Ta = 25 °C unless otherwise noted

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Static						
Collector-Base Voltage	$I_C = - 50\mu A, I_E = 0$	BV_{CBO}	- 50	--	--	V
Collector-Emitter Breakdown Voltage	$I_C = - 1mA, I_B = 0$	BV_{CEO}	- 50	--	--	V
Emitter-Base Breakdown Voltage	$I_E = - 50\mu A, I_C = 0$	BV_{EBO}	- 6	--	--	V
Collector Cutoff Current	$V_{CB} = - 40V, I_E = 0$	I_{CBO}	--	--	- 1	μA
Emitter Cutoff Current	$V_{EB} = - 4V, I_C = 0$	I_{EBO}	--	--	- 1	μA
Collector-Emitter Saturation Voltage	$I_C / I_B = - 2.0A / - 0.2A$	$V_{CE(SAT)}$	--	- 0.3	- 0.5	V
DC Current Transfer Ratio	$V_{CE} = - 2V, I_C = - 1A$	h_{FE}	160	--	350	
Transition Frequency	$V_{CE} = - 5V, I_C = - 100mA,$ $f = 100MHz$	f_T	--	80	--	MHz
Output Capacitance	$V_{CB} = - 10V, f = 1MHz$	Cob		55	--	pF

Note : pulse test: pulse width $\leq 380\mu S$, duty cycle $\leq 2\%$

Electrical Characteristics Curve

Figure 1. Current Gain vs Collector Current

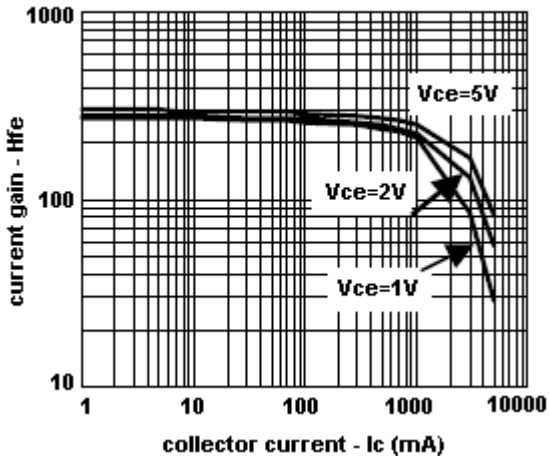


Figure 2. Saturation Voltage vs Collector Current

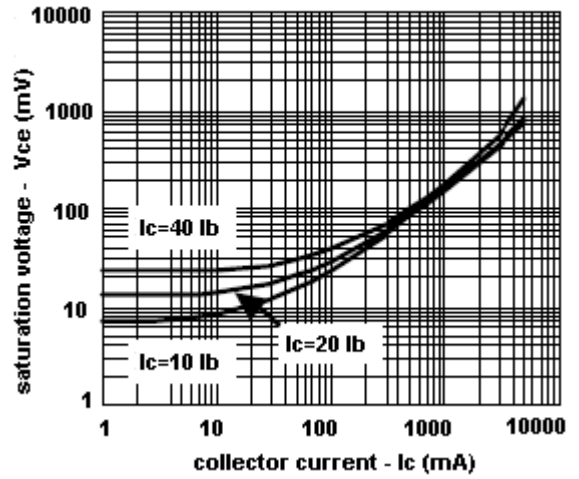


Figure 3. Saturation Voltage vs Collector Current

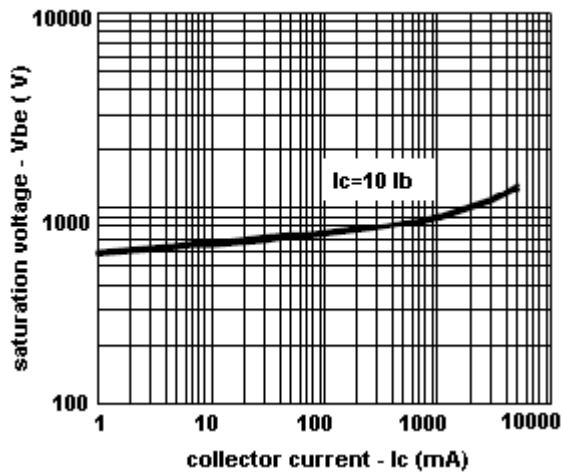
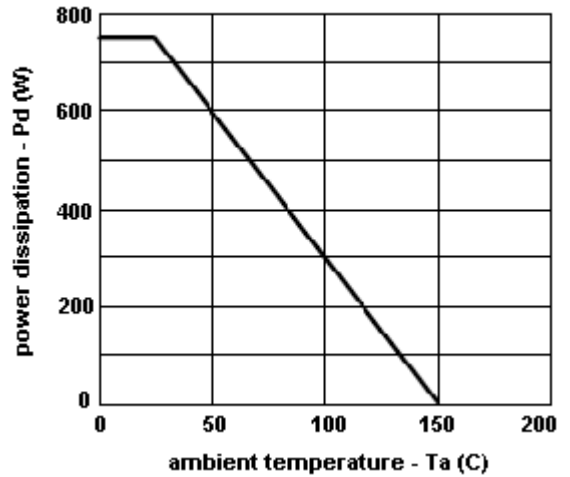
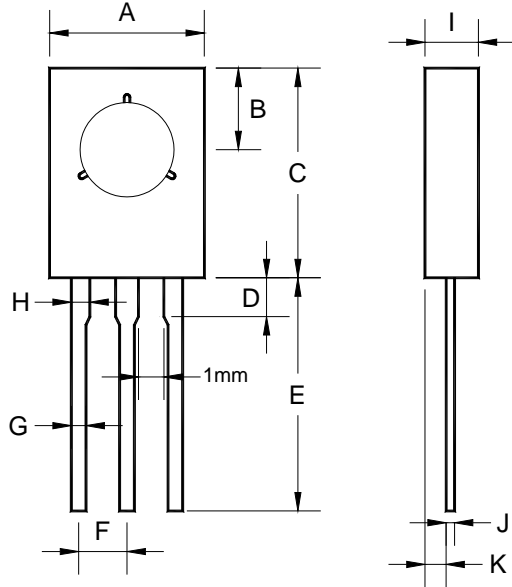


Figure 4. Power Derating Curves



TO-126 Mechanical Drawing



TO-126 DIMENSION				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	8.00 (typ)		0.315(typ)	
B	4.20 (typ)		0.165 (typ)	
C	10.58	11.00	0.417	0.433
D	2.00 (typ)		0.079 (typ)	
E	12.00(typ)		0.472(typ)	
F	2.50(typ)		0.098 (typ)	
G	0.74	0.78	0.029	0.031
H	0.8 (typ)		0.031(typ)	
I	2.56	3.00	0.101	0.118
J	0.38	0.50	0.015	0.020
K	1.1 (typ)		0.043 (typ)	