

TO-126

Pin Definition:

1. Emitter
2. Collector
3. Base

PRODUCT SUMMARY

BV_{CBO}	-50V
BV_{CEO}	-30V
I_C	-3A
V_{CE(SAT)}	-0.5V @ I _C / I _B = -2A / -200mA

Features

- Low V_{CE(SAT)} -0.3 @ I_C / I_B = 2A / 200mA (Typ.)
- Complementary part with TSD882

Structure

- Epitaxial Planar Type
- PNP Silicon Transistor

Ordering Information

Part No.	Package	Packing
TSB772CK B0G	TO-126	250pcs / Bulk
TSB772CK C0G	TO-126	50pcs / Tube

Note: "G" denote for Halogen Free Product

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

Parameter		Symbol	Limit	Unit
Collector-Base Voltage		V _{CBO}	-50	V
Collector-Emitter Voltage		V _{CEO}	-30	V
Emitter-Base Voltage		V _{EBO}	-5	V
Collector Current	DC	I _C	-3	A
	Pulse		-7 (note)	
Collector Power Dissipation	T _A = 25°C	P _D	1	W
	T _C = 25°C		10	
Operating Junction Temperature		T _J	+150	°C
Operating Junction and Storage Temperature Range		T _{STG}	- 55 to +150	°C

Note: Single pulse, Pw≤350us, Duty≤2%

Electrical Specifications (T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	I _C = -50uA, I _E = 0	BV _{CBO}	-50	--	--	V
Collector-Emitter Breakdown Voltage	I _C = -1mA, I _B = 0	BV _{CEO}	-30	--	--	V
Emitter-Base Breakdown Voltage	I _E = -50uA, I _C = 0	BV _{EBO}	-5	--	--	V
Collector Cutoff Current	V _{CB} = -30V, I _E = 0	I _{CBO}	--	--	-1	uA
Emitter Cutoff Current	V _{EB} = 3V, I _C = 0	I _{EBO}	--	--	-1	uA
Collector-Emitter Saturation Voltage	I _C / I _B = -2A / -200mA	*V _{CE(SAT)}	--	-0.3	-0.5	V
Base-Emitter Saturation Voltage	I _C / I _B = -2A / -200mA	*V _{BE(SAT)}	--	-1	-2	V
DC Current Transfer Ratio	V _{CE} = -2V, I _C = -1A	*h _{FE}	100	--	500	
Transition Frequency	V _{CE} = -5V, I _C = -100mA, f=100MHz	f _T	--	80	--	MHz
Output Capacitance	V _{CB} = -10V, f=1MHz	Cob	--	55	--	pF

* Pulse Test: Pulse Width ≤380uS, Duty Cycles≤2%

Electrical Characteristics Curve ($T_a = 25^\circ\text{C}$, unless otherwise noted)

Figure 1. DC Current Gain

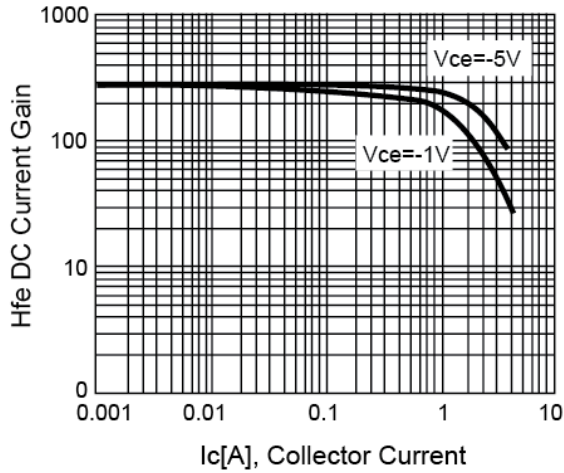


Figure 2. $V_{CE(SAT)}$ v.s. I_c

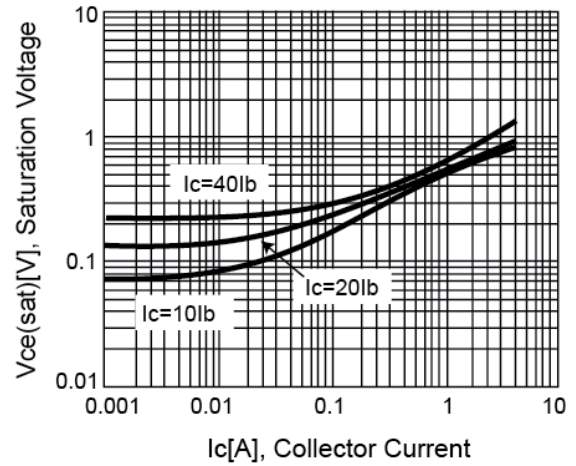


Figure 3. $V_{BE(SAT)}$ v.s. I_c

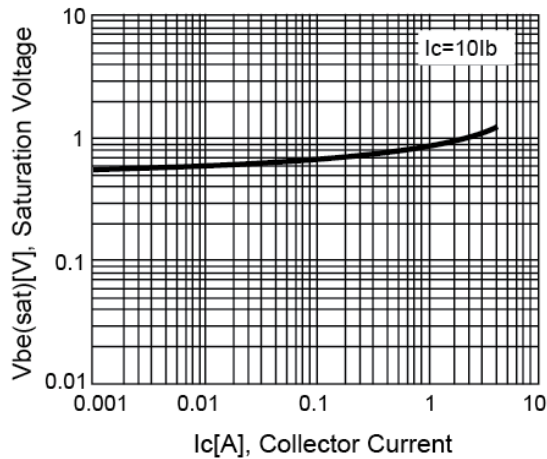
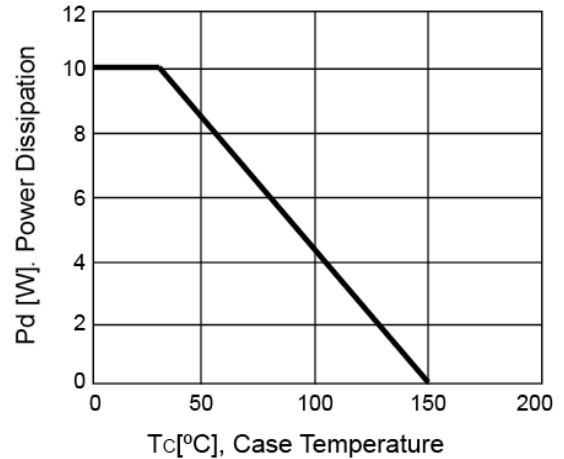
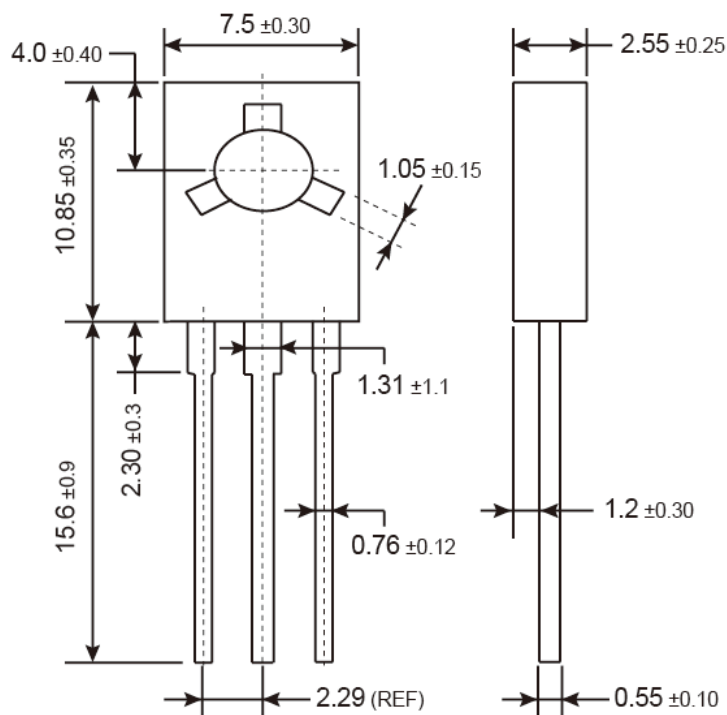


Figure 4. Power Derating Curve

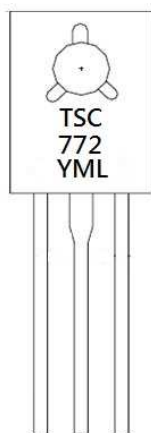


TO-18 Mechanical Drawing



Unit: Millimeters

Marking Diagram



- Y** = Year Code
- M** = Month Code for Halogen Free Product
(O=Jan, P=Feb, Q=Mar, R=Apr, S=May, T=Jun, U=Jul, V=Aug, W=Sep, X=Oct, Y=Nov, Z=Dec)
- L** = Lot Code

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