
	<h2>TSD882</h2> <h3>Low Vce(sat) NPN Transistor</h3>						
 <p>TO-126</p> <p>Pin assignment: TO-126 1. Emitter 2. Collector 3. Base</p> <p>1 2 3</p>	<p>$BV_{CEO} = 50V$ $I_C = 3A$ $V_{CE(SAT)} = 0.25V(\text{typ.}) @ I_C / I_B = 2A / 0.2A$</p>						
<p>Features</p> <ul style="list-style-type: none"> ✧ Low $V_{CE(SAT)}$. ✧ Excellent DC current gain characteristics 	<p>Ordering Information</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Part No.</th> <th>Packing</th> <th>Package</th> </tr> </thead> <tbody> <tr> <td>TSD882CK</td> <td>Bulk Pack</td> <td>TO-126</td> </tr> </tbody> </table>	Part No.	Packing	Package	TSD882CK	Bulk Pack	TO-126
Part No.	Packing	Package					
TSD882CK	Bulk Pack	TO-126					
<p>Structure</p> <ul style="list-style-type: none"> ✧ Epitaxial planar type. ✧ Complementary to TSB772 							

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}	5	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	$I_C / I_B = 2.0A / 0.2A$	$V_{CE(SAT)}$	--	0.25	0.5	V	
DC Current Transfer Ratio	$V_{CE} = 2V, I_C = 1A$	h_{FE}	160	--	500		
Transition Frequency	$V_{CE} = 5V, I_C = 100mA,$ $f = 100MHz$	f_T	--	90	--	MHz	
Output Capacitance	$V_{CB} = 10V, f = 1MHz$	C_{ob}		45	--	pF	

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





Electrical Characteristics Curve

Figure 1. Current Gain vs Collector Current

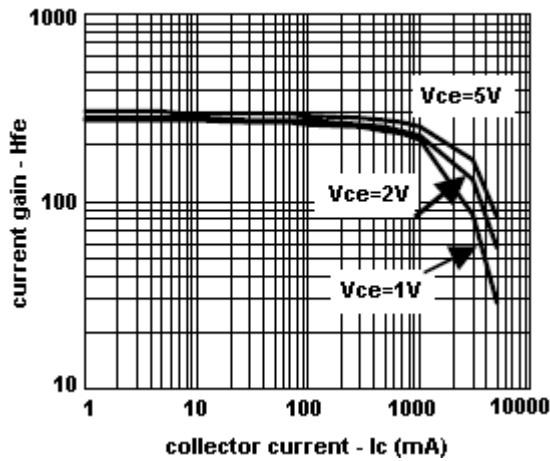


Figure 2. Saturation Voltage vs Collector Current

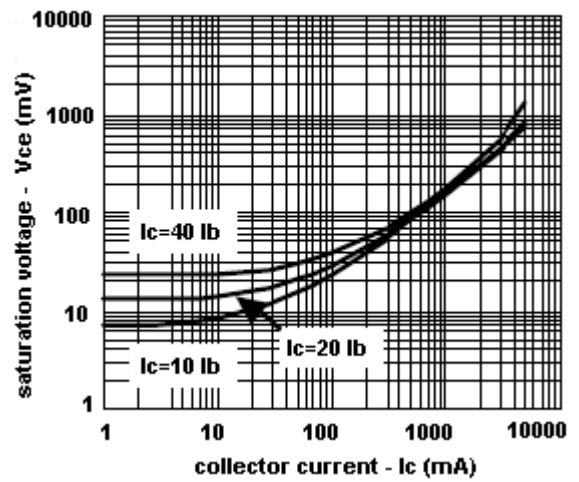


Figure 3. Saturation Voltage vs Collector Current

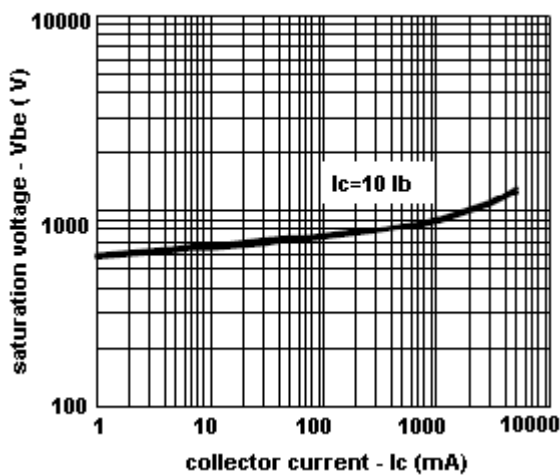
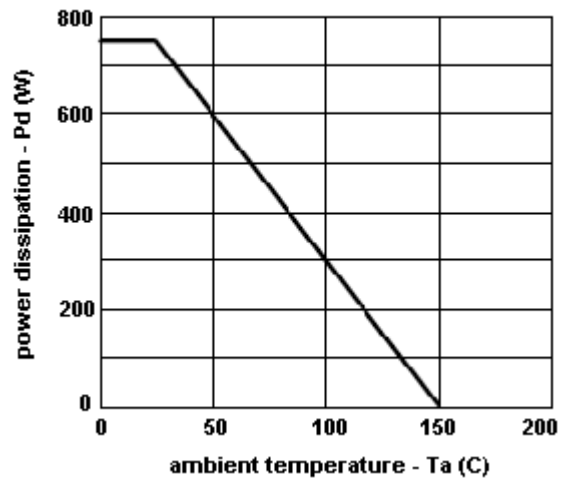
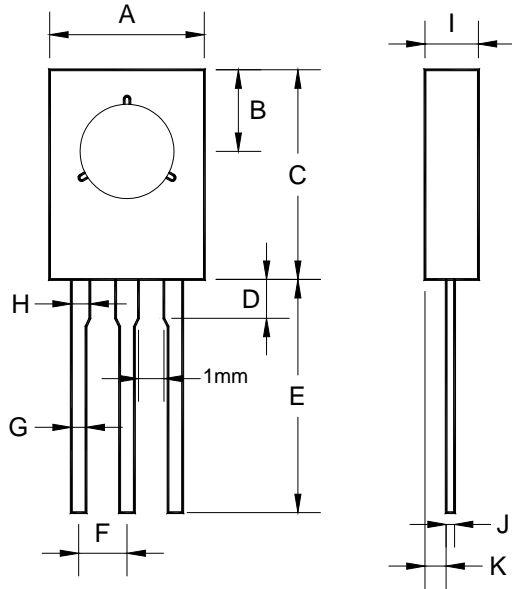


Figure 4. Power Derating Curves



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)	