

TSC 		TSB1184A Low Vce(sat) PNP Transistor															
TO-252  123				Pin Assignment: 1. Base 2. Collector 3. Emitter				BV_{CEO} = - 50V I_C = - 3A V_{CE (SAT)}, = - 0.3V(typ.) @I_C / I_B = - 2A / - 0.1A									
Features ✧ LOW V_{CE (SAT)}. ✧ Excellent DC current gain characteristics				Ordering Information <table><tr><th>Part No.</th><th>Packing</th><th>Package</th></tr><tr><td>TSB1184ACP</td><td>Tape & Reel</td><td>TO-252</td></tr></table>						Part No.	Packing	Package	TSB1184ACP	Tape & Reel	TO-252		
Part No.	Packing	Package															
TSB1184ACP	Tape & Reel	TO-252															
Structure ✧ Epitaxial planar type. ✧ PNP silicon transistor																	
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		I _C		- 3		A									
		Pulse				- 7 (note 1)											
Collector Power Dissipation		TO-252		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 = - 50uA, 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 = - 50uA, I _C = 0		BV _{EBO}	- 6	--	--	V									
Collector Cutoff Current		V _{CB} = - 40V, I _E = 0		I _{CBO}	--	--	- 1	uA									
Emitter Cutoff Current		V _{EB} = - 4V, I _C = 0		I _{EBO}	--	--	- 1	uA									
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}	120	--	560										
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 <=380uS, duty cycle <=2%																	
Classification Of h_{FE} <table><tr><td>Rank</td><td>Q</td><td>R</td><td>S</td></tr><tr><td>Range</td><td>120 - 270</td><td>180 - 390</td><td>270 - 560</td></tr></table>										Rank	Q	R	S	Range	120 - 270	180 - 390	270 - 560
Rank	Q	R	S														
Range	120 - 270	180 - 390	270 - 560														

Electrical Characteristics Curve

Figure 1. Current Gain vs Collector Current

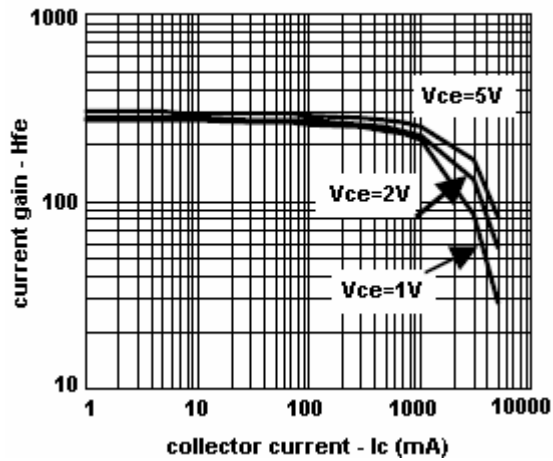


Figure 2. Saturation Voltage vs Collector Current

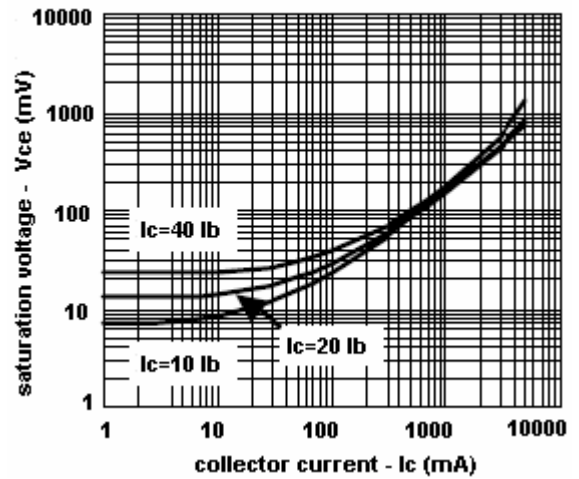


Figure 3. Saturation Voltage vs Collector Current

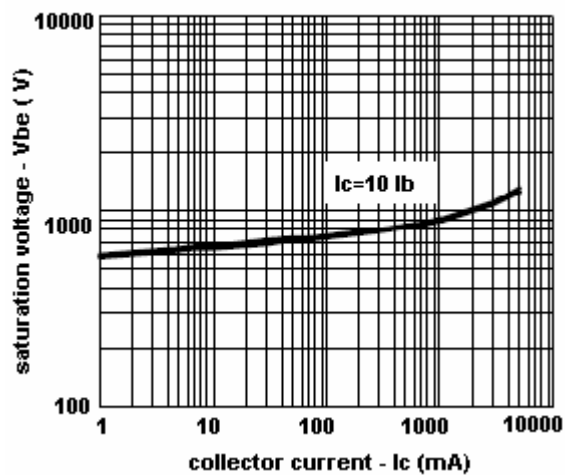
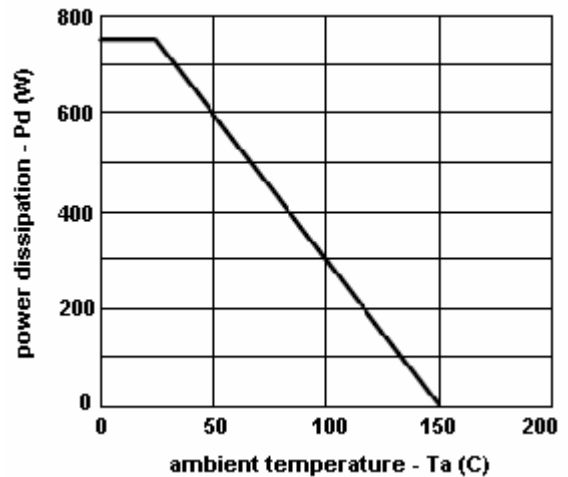
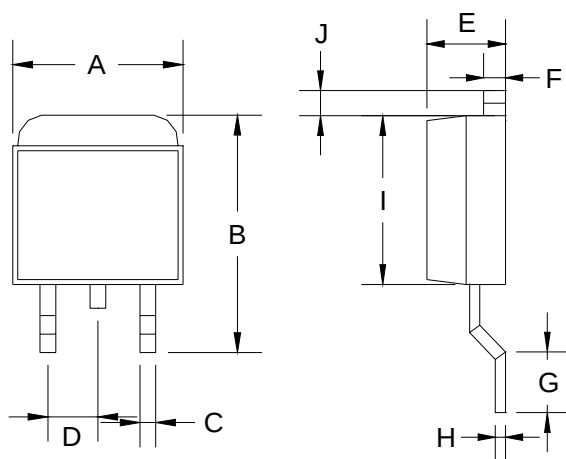


Figure 4. Power Derating Curves



TO-252 Mechanical Drawing



TO-252 DIMENSION				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	6.570	6.840	0.259	0.269
B	9.250	10.400	0.364	0.409
C	0.550	0.700	0.022	0.028
D	2.560	2.670	0.101	0.105
E	2.300	2.390	0.090	0.094
F	0.490	0.570	0.019	0.022
G	1.460	1.580	0.057	0.062
H	0.520	0.570	0.020	0.022
I	5.340	5.550	0.210	0.219
J	1.460	1.640	0.057	0.065