

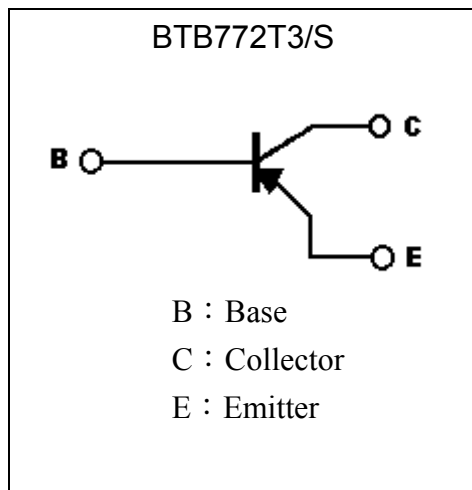
Low Vcesat PNP Epitaxial Planar Transistor

BTB772T3/S

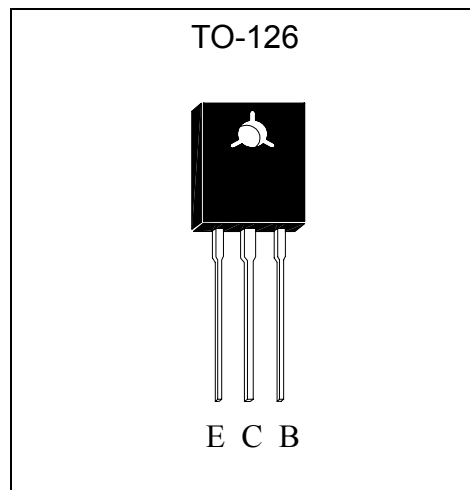
Features

- Low $V_{CE(sat)}$, typically -0.3V at $I_C / I_B = -2A / -0.2A$
- Excellent current gain characteristics
- Complementary to BTD882T3/S
- Pb-free package is available

Equivalent Circuit



Outline



Absolute Maximum Ratings ($T_a=25^{\circ}C$)

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	$I_C(DC)$	-3	A
	$I_C(pulse)$	-7 *1	A
Power Dissipation	$P_d(T_a=25^{\circ}C)$	1	W
	$P_d(T_c=25^{\circ}C)$	10	
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}C$

Note : *1. Single Pulse $P_w \leq 350\mu s$, Duty $\leq 2\%$.



Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CBO}	-40	-	-	V	I _C =-50μA, I _E =0
BV _{CEO}	-30	-	-	V	I _C =-1mA, I _B =0
BV _{EBO}	-5	-	-	V	I _E =-50μA, I _C =0
I _{CBO}	-	-	-1	μA	V _{CB} =-30V, I _E =0
I _{EBO}	-	-	-1	μA	V _{EB} =-3V, I _C =0
*V _{CE(sat)}	-	-0.3	-0.5	V	I _C =-2A, I _B =-0.2A
*V _{BE(sat)}	-	-1	-2	V	I _C =-2A, I _B =-0.2A
*h _{FE1}	52	-	-	-	V _{CE} =-2V, I _C =-20mA
*h _{FE2}	100	-	500	-	V _{CE} =-2V, I _C =-1A
f _T	-	80	-	MHz	V _{CE} =-5V, I _C =-0.1A, f=100MHz
Cob	-	55	-	pF	V _{CB} =-10V, f=1MHz

*Pulse Test : Pulse Width ≤380μs, Duty Cycle≤2%

Classification Of hFE 2

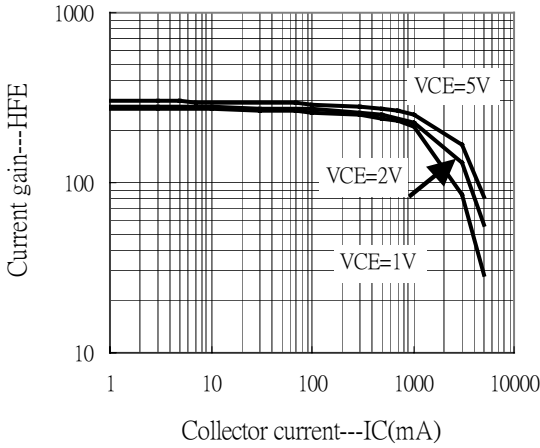
Rank	Q	P	E
Range	100~200	160~320	250~500

Ordering Information

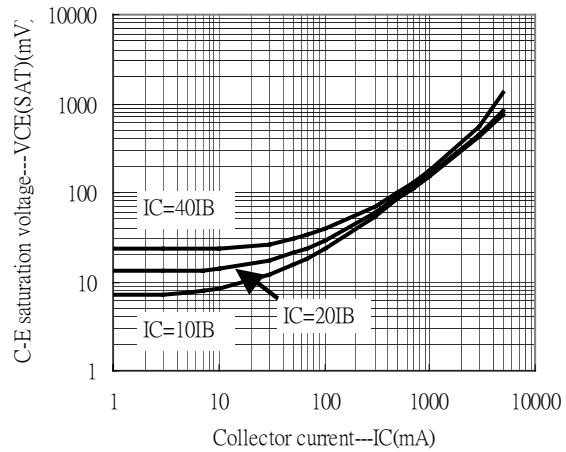
Device	Package	Shipping
BTB772T3	TO-126	500 pcs / bag
BTB772T3S	TO-126 (Pb-free)	500 pcs / bag

Characteristic Curves

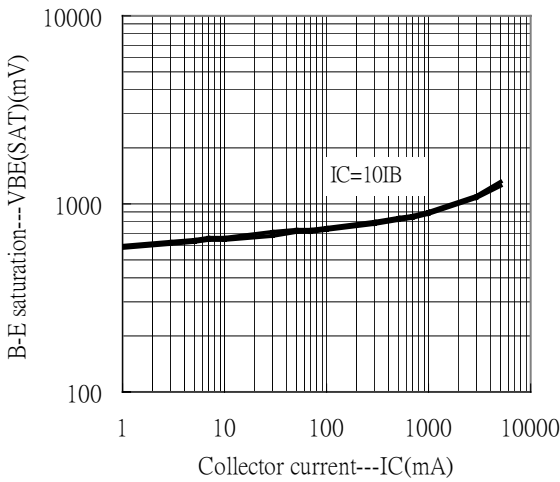
Current gain vs Collector current



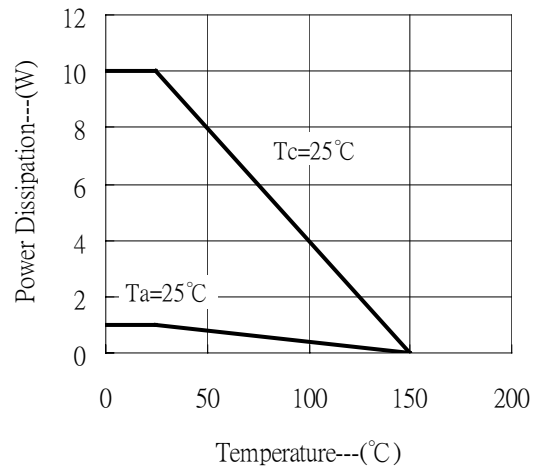
C-E saturation voltage vs Collector current



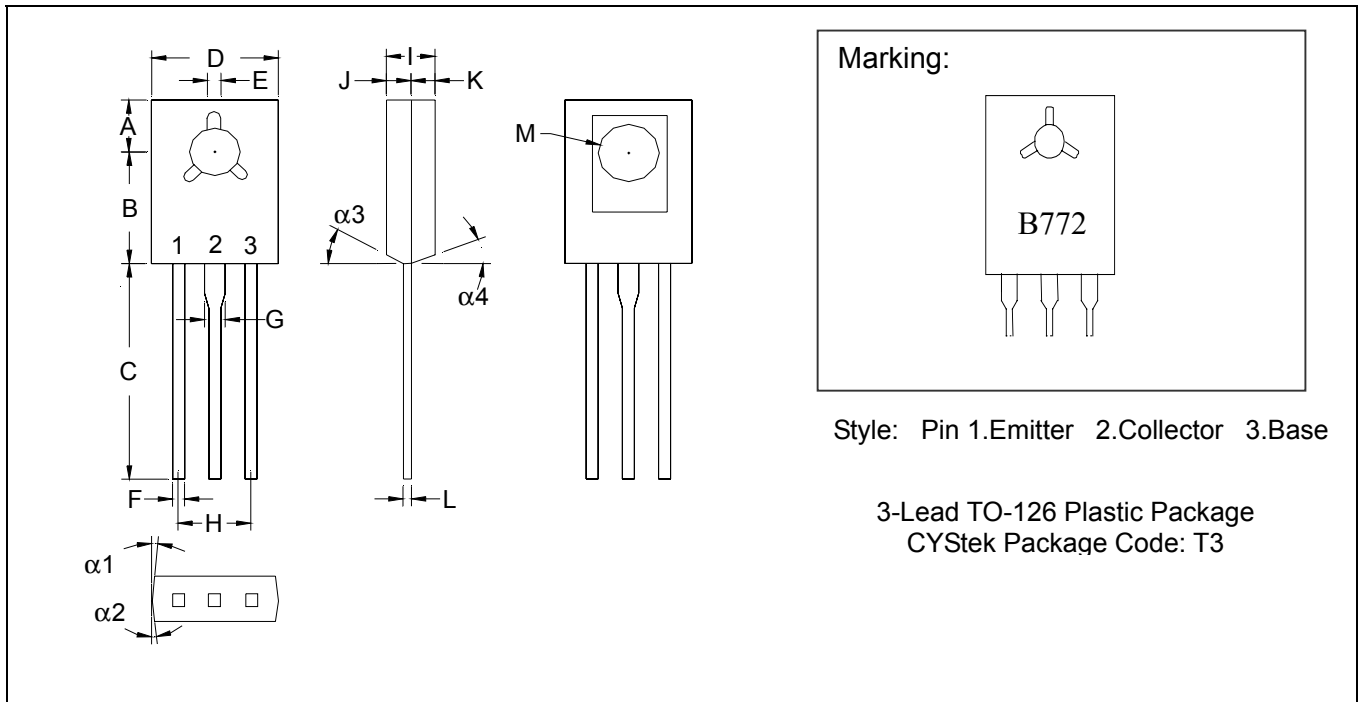
B-E saturation voltage vs Collector current



Power derating curves



TO-126 Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
$\alpha 1$	-	*3°	-	*3°	F	0.0280	0.0319	0.71	0.81
$\alpha 2$	-	*3°	-	*3°	G	0.0480	0.0520	1.22	1.32
$\alpha 3$	-	*3°	-	*3°	H	0.1709	0.1890	4.34	4.80
$\alpha 4$	-	*3°	-	*3°	I	0.0950	0.1050	2.41	2.66
A	0.1500	0.1539	3.81	3.91	J	0.0450	0.0550	1.14	1.39
B	0.2752	0.2791	6.99	7.09	K	0.0450	0.0550	1.14	1.39
C	0.5315	0.6102	13.50	15.50	L	-	*0.0217	-	*0.55
D	0.2854	0.3039	7.52	7.72	M	0.1378	0.1520	3.50	3.86
E	0.0374	0.0413	0.95	1.05					

Notes: 1.Controlling dimension: millimeters.
 2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

Material:

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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