

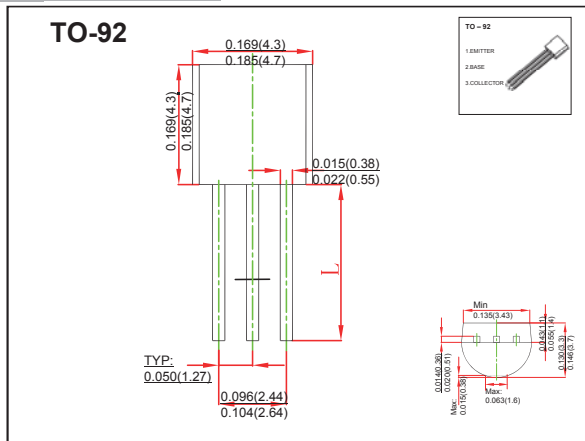
TO-92 Plastic-Encapsulate Transistors

FEATURES

- High Collector Power Dissipation .
- Complementary to 2SD1616/2SD1616A
- TRANSISTOR (PNP)

MECHANICAL DATA

- Case style:TO-92 molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	2SB1116	-60
		2SB1116A	-80
V _{CEO}	Collector-Emitter Voltage	2SB1116	-50
		2SB1116A	-60
V _{EBO}	Emitter-Base Voltage	-6	V
I _C	Collector Current -Continuous	-1	A
P _C	Collector Power Dissipation	0.75	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

ORDERING INFORMATION

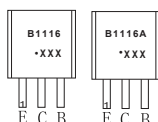
Part Number	Package	Packing Method	Pack Quantity
2SB1116	TO-92	Bulk	1000pcs/Bag
2SB1116-TA	TO-92	Tape	2000pcs/Box
2SB1116A	TO-92	Bulk	1000pcs/Bag
2SB1116A-TA	TO-92	Tape	2000pcs/Box

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-100μA, I _E =0	2SB1116 2SB1116A	-60 -80		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	2SB1116 2SB1116A	-50 -60		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-100μA, I _C =0		-6		V
Collector cut-off current	I _{CBO}	V _{CB} =-60V, I _E =0	2SB1116		-0.1	μA
		V _{CB} =-60V, I _E =0	2SB1116A			
Emitter cut-off current	I _{EBO}	V _{EB} =-6V, I _C =0			-0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =-2V, I _C =-0.1A		135	600	
	h _{FE(2)}	V _{CE} =-2V, I _C =-1A		81		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-1A, I _B =-50mA			-0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-1A, I _B =-50mA			-1.2	V
Base-emitter voltage	V _{BE}	V _{CE} =-2V, I _C =-0.05A		-0.6	-0.7	V
Transition frequency	f _T	V _{CE} =-2V, I _C =-0.1A		70		MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		25		pF
Turn-on time	t _{on}	V _{CC} =-10V, I _C =-0.1A, I _{B1} =-I _{B2} =-0.01A, V _{BE(Off)} =2to3V		0.07		us
Storage time	t _s			0.7		us
Fall time	t _f			0.07		us

CLASSIFICATION OF h_{FE(1)}

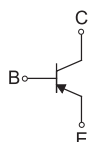
Rank	L	K	U
Range	135-270	200-400	300-600

MARKING



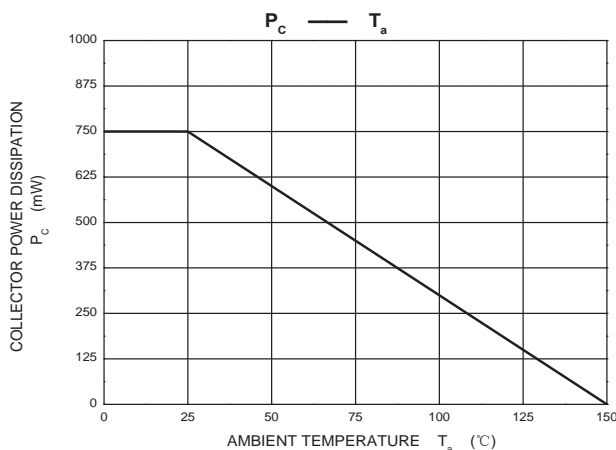
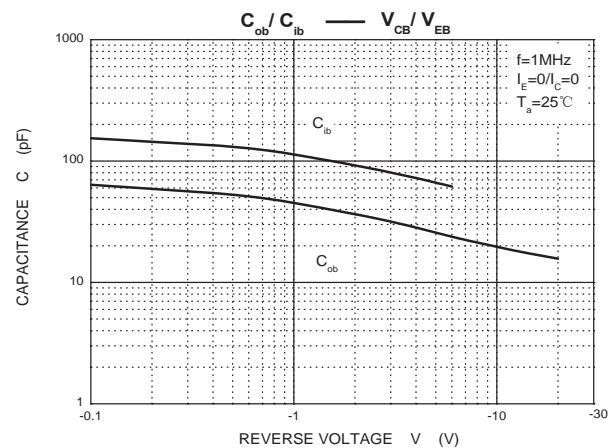
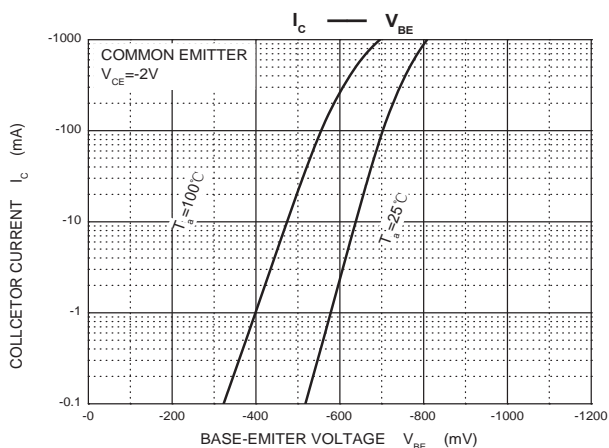
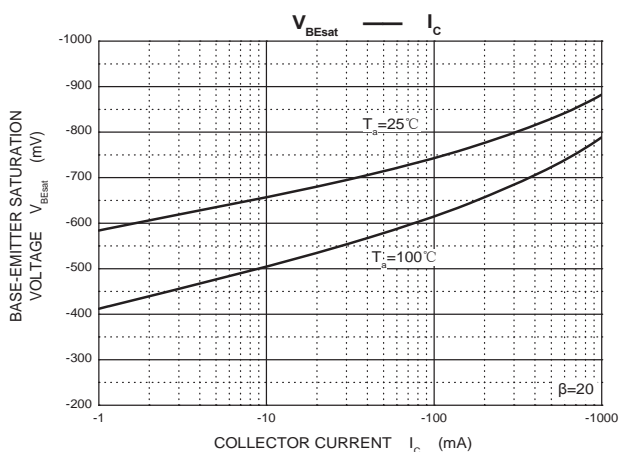
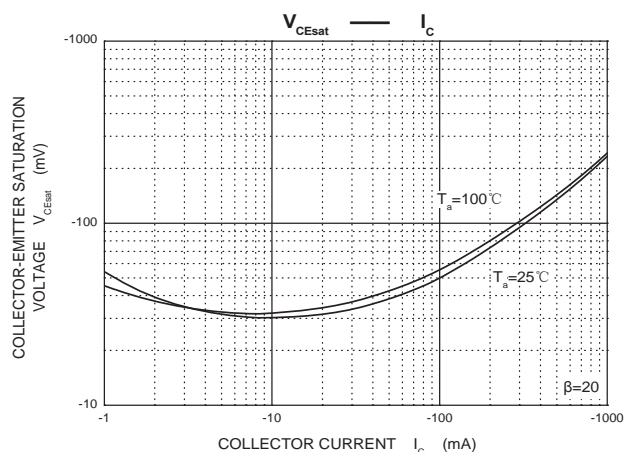
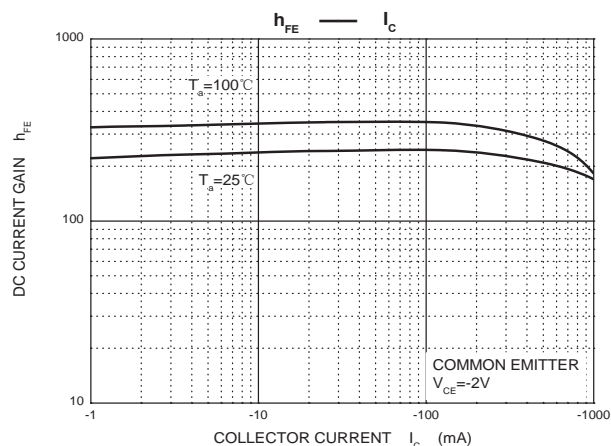
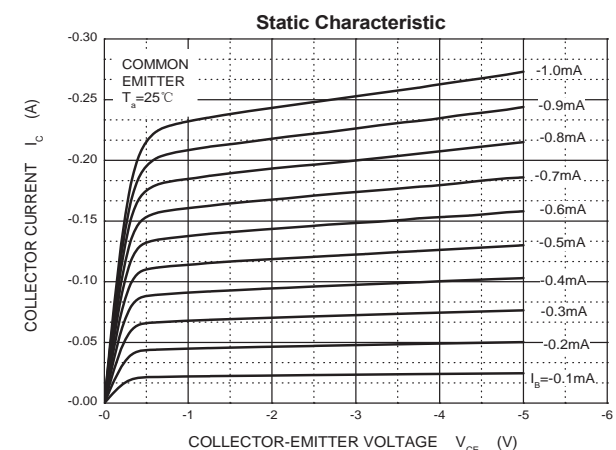
B1116, B1116A = Device code
 Solid dot = Green molding compound device,
 if none, the normal device
 XXX = Code

Equivalent Circuit

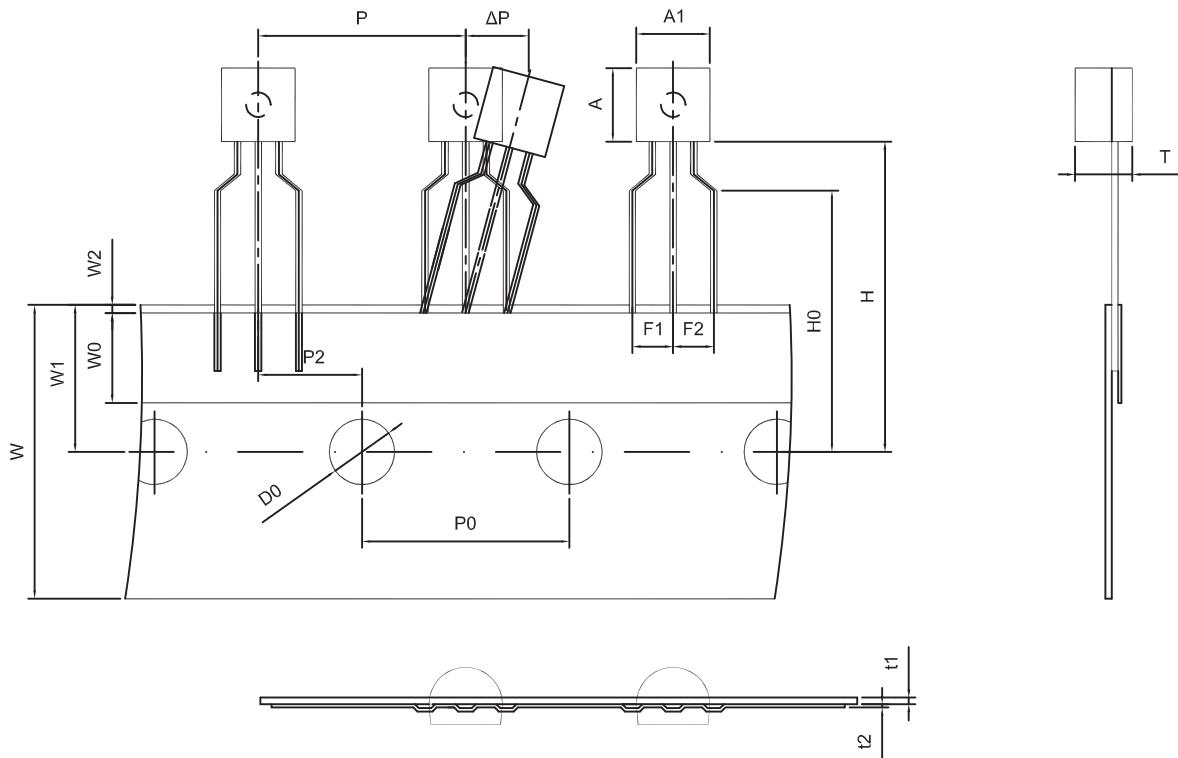


RATINGS AND CHARACTERISTIC CURVES

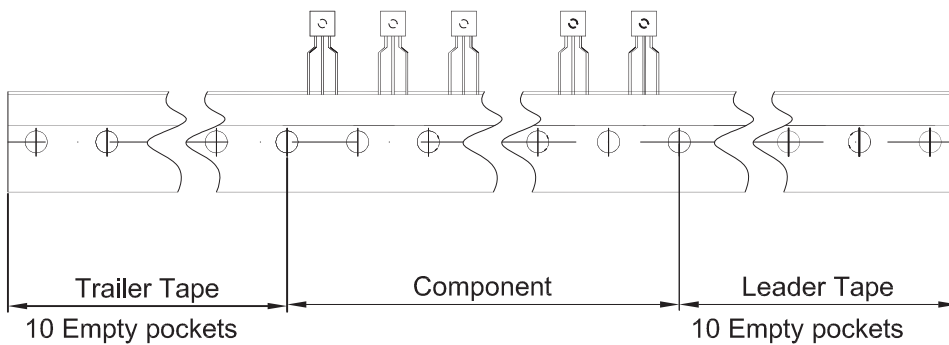
Typical Characteristics



TO-92 PACKAGE TAPEING DIMENSION



Dimensions are in millimeter								
A1	A	T	P	P0	P2	F1	F2	W
4.5	4.5	3.5	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0 MAX.	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000 pcs	333×162×43	20,000 pcs	350×340×250