NPN Epitaxial Planar Transistor

BTN6718A3

Description

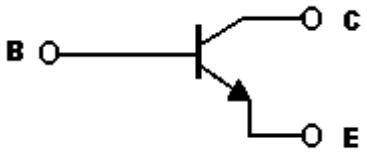
The BTN6718A3 is designed for general purpose medium power amplifier and switching applications.

Features

- Low collector saturation voltage
- High breakdown voltage, V_{CEO}=100V (min.)
- High collector current, $I_{C(max)}$=1A (DC)
- Pb-free package

Symbol

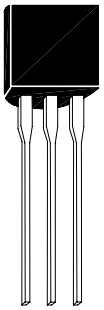
BTN6718A3



B：Base
C：Collector
E：Emitter

Outline

TO-92



E C B

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	100	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	1	A
Collector Current (Pulse)	I_{CP}	2 (Note)	A
Power Dissipation	P_D	850	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	147	°C/W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

Note : Pulse test, $P_W \leq 10ms$, Duty ≤ 50%.

Characteristics (Ta=25°C)

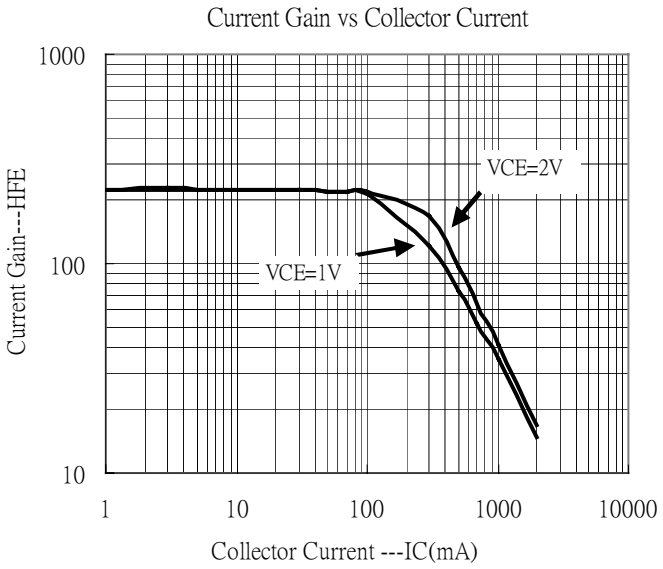
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	100	-	-	V	I_C=100μA
BV_{CEO}	100	-	-	V	I_C=1mA
BV_{EBO}	5	-	-	V	I_E=10μA
I_{CBO}	-	-	100	nA	V_{CB}=80V, I_E=0
I_{EBO}	-	-	100	nA	V_{EB}=4V, I_C=0
*$V_{CE(SAT)}$	-	-	350	mV	I_C=350mA, I_B=35mA
*h_{FE} 1	90	-	-	-	V_{CE}=1V, I_C=50mA
*h_{FE} 2	100	-	300	-	V_{CE}=1V, I_C=250mA
*h_{FE} 3	20	-	-	-	V_{CE}=1V, I_C=500mA
f_T	50	-	-	MHz	V_{CE}=10V, I_C=50mA, f=100MHz
Cob	-	-	20	pF	V_{CB}=10V, I_E=0A, f=1MHz

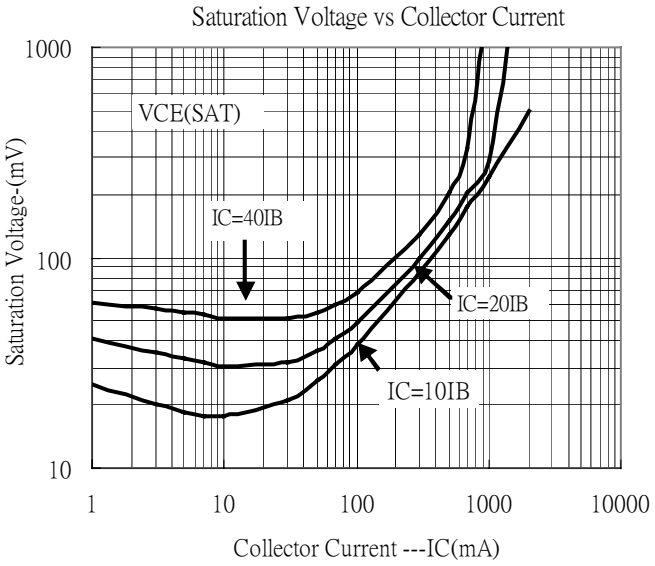
*Pulse Test: Pulse Width ≤380μs, Duty Cycle≤2%

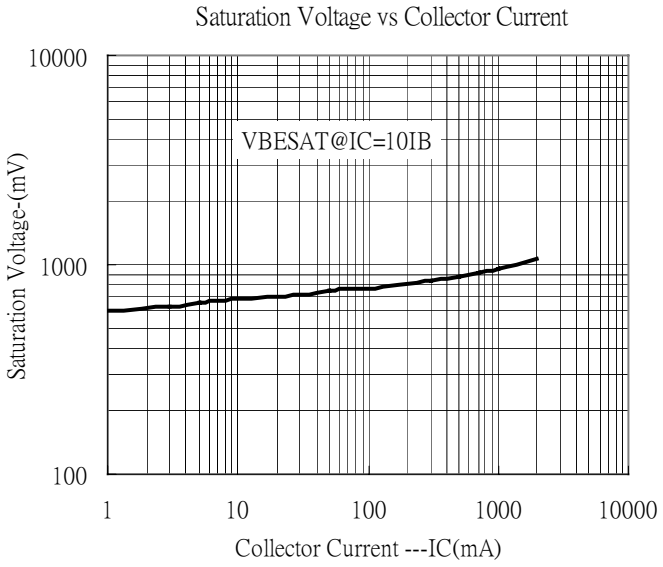
Ordering Information

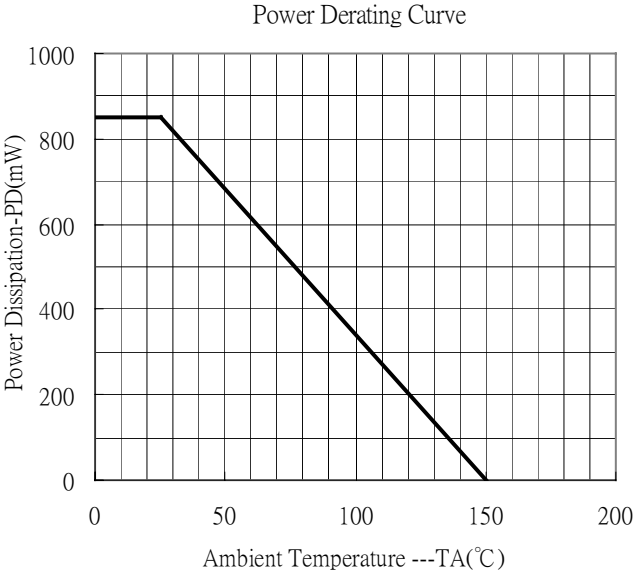
Device	Package	Shipping	Marking
BTN6718A3	TO-92 (Pb-free)	2000 pcs / Tape & Box	N6718

Characteristic Curves

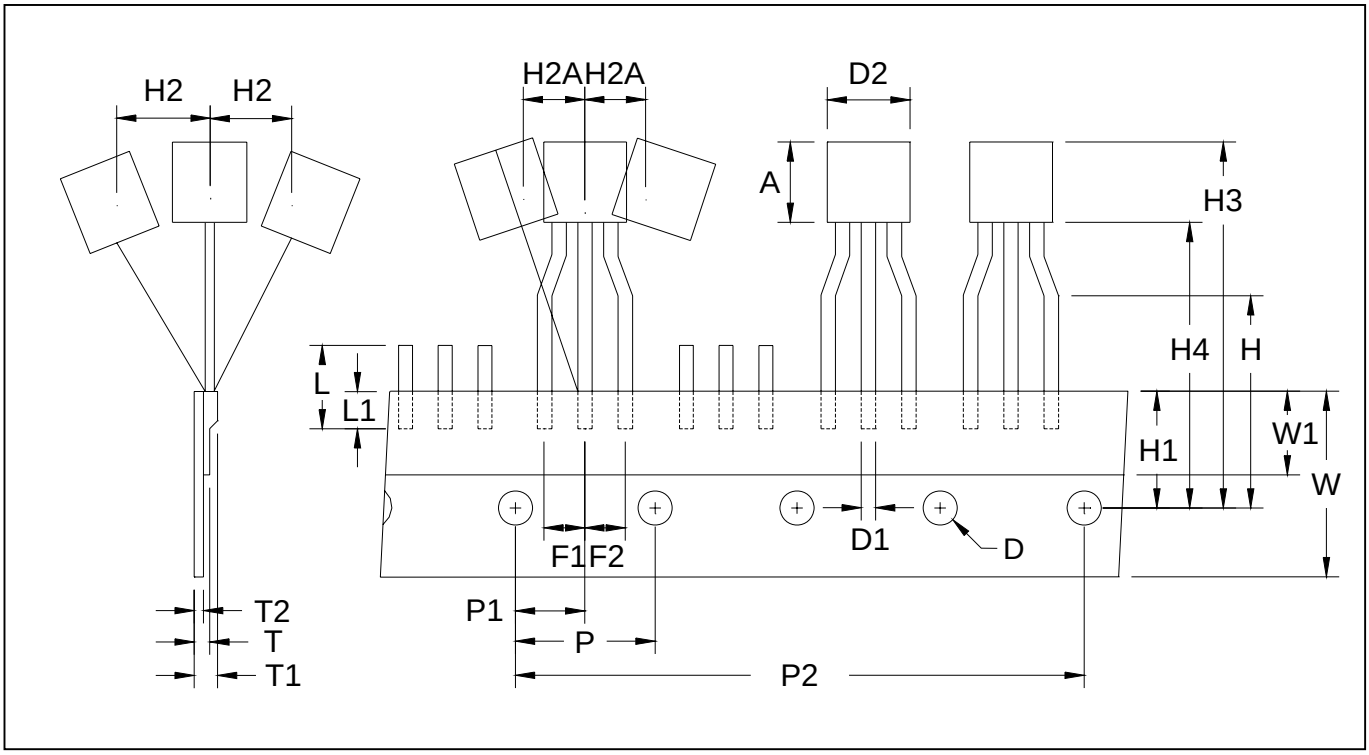






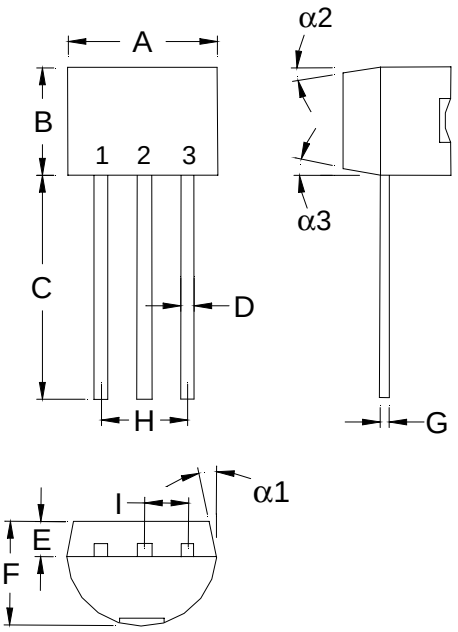


TO-92 Taping Outline



DIM	Item	Millimeters	
		Min.	Max.
A	Component body height	4.33	4.83
D	Tape Feed Diameter	3.80	4.20
D1	Lead Diameter	0.36	0.53
D2	Component Body Diameter	4.33	4.83
F1,F2	Component Lead Pitch	2.40	2.90
F1,F2	F1-F2	-	±0.3
H	Height Of Seating Plane	15.50	16.50
H1	Feed Hole Location	8.50	9.50
H2	Front To Rear Deflection	-	1
H2A	Deflection Left Or Right	-	1
H3	Component Height	-	27
H4	Feed Hole To Bottom Of Component	-	21
L	Lead Length After Component Removal	-	11
L1	Lead Wire Enclosure	2.50	-
P	Feed Hole Pitch	12.50	12.90
P1	Center Of Seating Plane Location	5.95	6.75
P2	4 Feed Hole Pitch	50.30	51.30
T	Over All Tape Thickness	-	0.55
T1	Total Taped Package Thickness	-	1.42
T2	Carrier Tape Thickness	0.36	0.68
W	Tape Width	17.50	19.00
W1	Adhesive Tape Width	5.00	7.00
-	20 pcs Pitch	253	255

TO-92 Dimension



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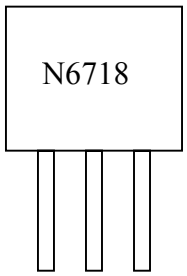

Style: Pin 1.Emitter 2.Collector 3.Base

3-Lead TO-92 Plastic Package
CYStek Package Code: A3

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1704	0.1902	4.33	4.83	G	0.0142	0.0220	0.36	0.56
B	0.1704	0.1902	4.33	4.83	H	-	*0.1000	-	*2.54
C	0.5000	-	12.70	-	I	-	*0.0500	-	*1.27
D	0.0142	0.0220	0.36	0.56	α1	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	α2	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	α3	-	*2°	-	*2°

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