

Plastic-Encapsulate Transistors

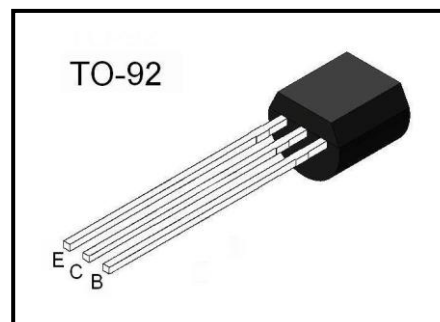
TRANSISTOR (NPN)

APPLICATIONS

- ♦Audio power amplifier
- ♦DC-DC convertor
- ♦Voltage regulator

FEATURES

- ♦Low saturation voltage
- ♦High current output up to 3A
- ♦Complement to 2SB772



Absolute Maximum Rating (Ta=25°C)

Para meter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current -Continuous	I_C	3	A
Collector Power Dissipation	P_D	1.25	W
Junction Temperature	T_j	150	°C
St orage Temperature	T_{stg}	-55 ~+150	°C

Electrical Characteristics (Ta=25°C)

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Collector-base breakdown voltage	$I_C = 100\mu A, I_E = 0$	$V_{(BR)CBO}$	40			V
Collector-emitter breakdown voltage	$I_C = 10mA, I_B = 0$	$V_{(BR)CEO}$	30			V
Emitter-base breakdown voltage	$I_E = 100\mu A, I_C = 0$	$V_{(BR)EBO}$	6			V
Collector cut-off current	$V_{CB} = 40V, I_E = 0$	I_{CBO}			1	μA
Collector cut-off current	$V_{CE} = 30V, I_B = 0$	I_{CEO}			10	μA
Emitter cut-off current	$V_{EB} = 3V, I_C = 0$	I_{EBO}			1	μA
DC current gain*	$V_{CE} = 2V, I_C = 20mA$ $V_{CE} = 2V, I_C = 1.0A$	h_{FE}	30 60		400	
Collector-emitter saturation voltage	$I_C = 2A, I_B = 0.2A$	$V_{CE(sat)}$			0.5	V
Base-emitter saturation voltage	$I_C = 2A, I_B = 0.2A$	$V_{BE(sat)}$			2.0	V
Transition frequency	$V_{CE} = 5V, I_B = 0.1A$	f_T	50	80		MHz

CLASSIFICATION OF h_{FE}

Rank	D882G-R	D882G-O	D882G-Y	D882G-GR
Range	60-120	100-200	160-320	200-400
Marking	D882 R	D882 O	D882 Y	D882 GR

Typical Characteristics

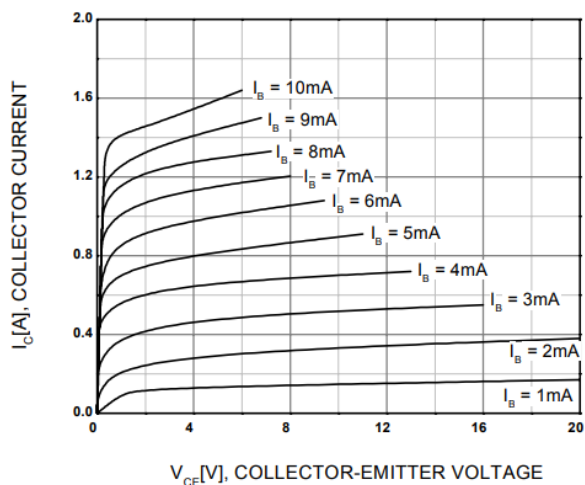


Figure 1. Static Characteristic

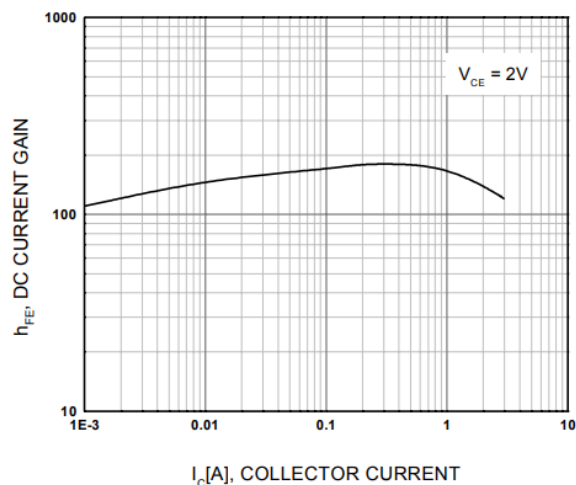
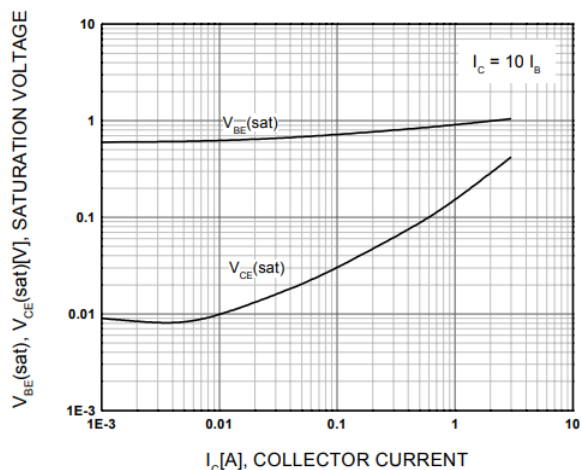


Figure 2. DC current Gain



**Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage**

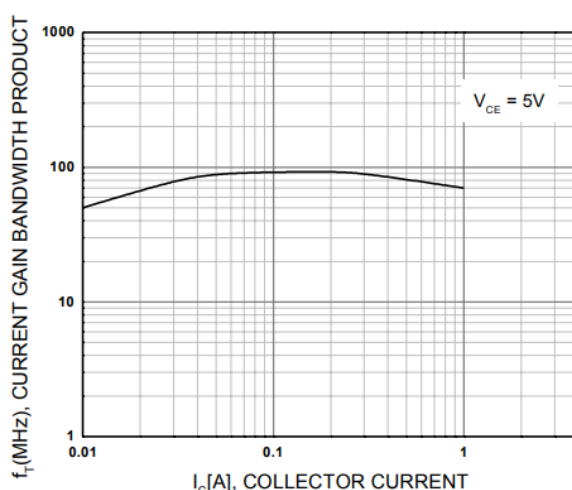


Figure 4. Current Gain Bandwidth Product

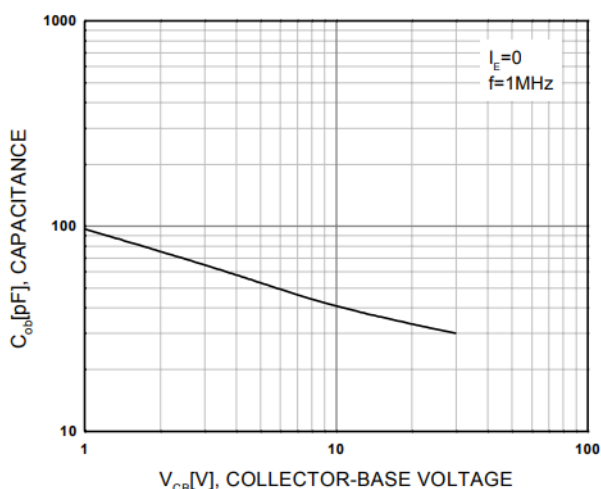


Figure 5. Collector Output Capacitance

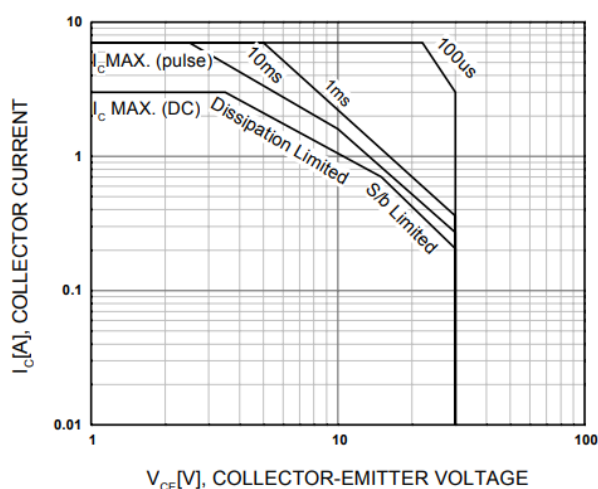


Figure 6. Safe Operating Area

Ordering information

Package	Packing Description	Base Quantity
TO-92	Bulk	1000pcs/Bag
	Tape	2000pcs/Box

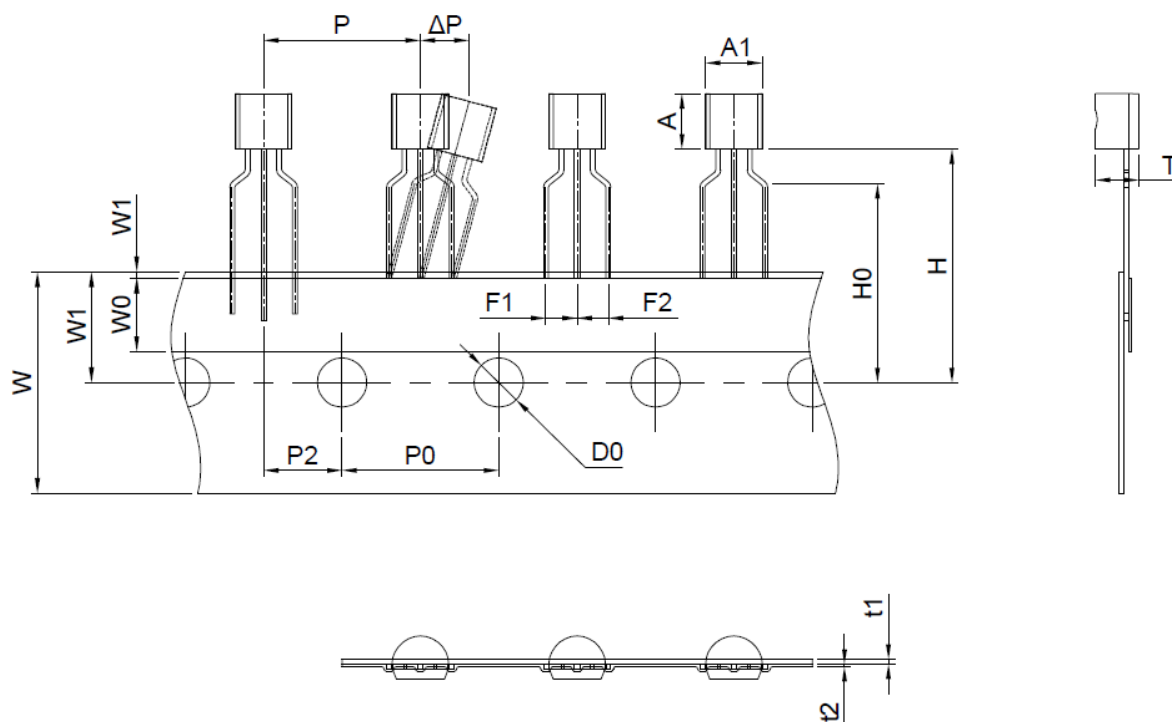
Package Dimensions

TO-92

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.70	0.130	0.146
A1	2.30	2.70	0.091	0.106
b	0.40	0.50	0.016	0.020
b1	0.50	0.70	0.020	0.028
c	0.35	0.45	0.014	0.018
D	4.45	4.70	0.175	0.185
E	4.40	4.65	0.173	0.183
e	1.17	1.37	0.046	0.054
e1	2.34	2.64	0.092	0.104
L	13.50	14.50	0.531	0.571
L1	1.80	2.20	0.071	0.087

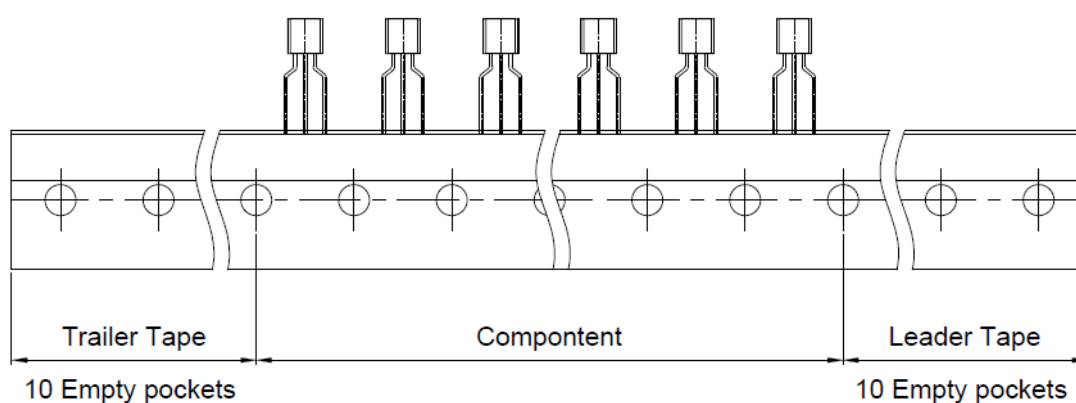
Taping Dimensions

TO-92



Dimiensions are in millimeter

A	A1	T	P	P0	P2	F1	F2	W
4.6	4.6	3.5	12.7	12.7	6.35	2.54	2.54	18.0
W0	W1	W2	H	H0	D0	t1	T2	ΔP
6.0	9.0	1.0Max	19.0	18.0	4.0	0.4	0.2	0



Disclaimer

The information presented in this document is for reference only. GuangDong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.