

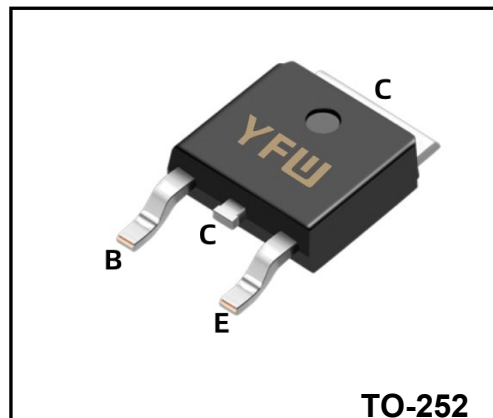
NPN Plastic-Encapsulate Transistors

DESCRIPTION

The 2SD882AD is a medium power low voltage transistor, designed for audio power amplifier, DC-DC converter and voltage regulator.

FEATURES

- High current output up to 3A
- Complement to 2SB772AD



TO-252

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	40	V
Collector-Emitter Voltage	BV_{CEO}	30	V
Emitter-Base Voltage	BV_{EBO}	6	V
Collector Current	I_C	3	A
Collector Power Dissipation	P_C	1.25	W
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55~150	℃

Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	40			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 1mA, I_B = 0$	30			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	6			V
Collector -base cut-off current	I_{CBO}	$V_{CB} = 40V, I_E = 0$	-		1	μA
Collector- emitter cut-off current	I_{CEO}	$V_{CE} = 30V, I_E = 0$			10	μA
Emitter- base cut-off current	I_{EBO}	$V_{EB} = 3V, I_C = 0$			1	μA
DC current gain*	h_{FE}	$V_{CE} = 2V, I_C = 20mA$	30			
		$V_{CE} = 2V, I_C = 1.0A$	60		400	
Collector-emitter saturation voltage*	$V_{CE(sat)}$	$I_C = 2.0A, I_B = 0.2A$			0.5	V
Base -emitter saturation voltage*	$V_{BE(sat)}$	$I_C = 2.0A, I_B = 0.2A$			1.5	V
Transition frequency	f_T	$V_{CE} = 5V, I_B = 0.1A$	50			MHz

Note *Pulse Test: $PW \leq 350\mu s$, Duty Cycle $\leq 2\%$

hFE Classification

Classification	2SD882AD-R	2SD882AD-Q	2SD882AD-P	2SD882AD-E
hFE	60-120	100-200	160-320	200-400

Typical Characteristic

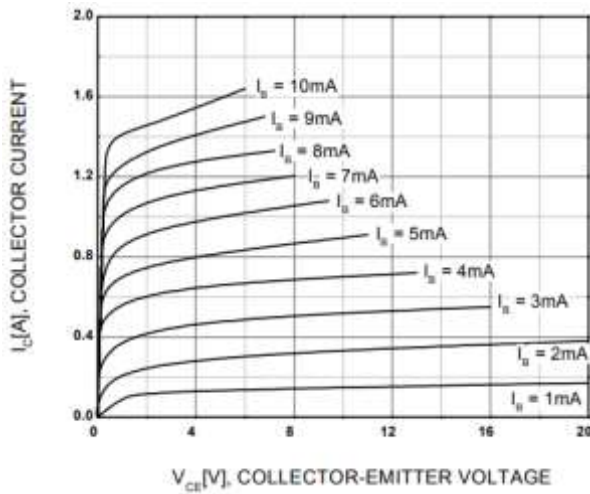


Figure 1. Static Characteristic

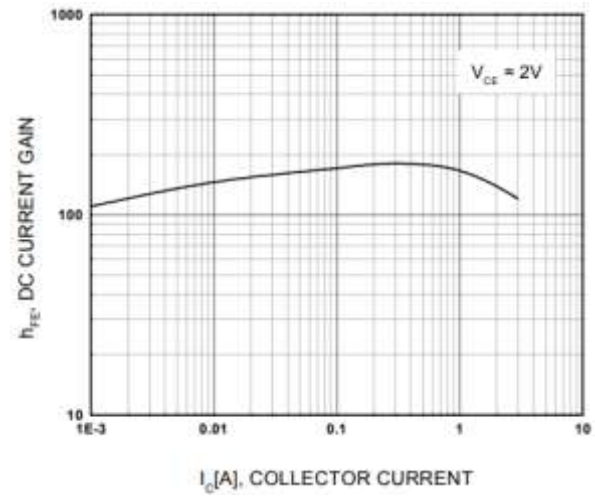


Figure 2. DC current Gain

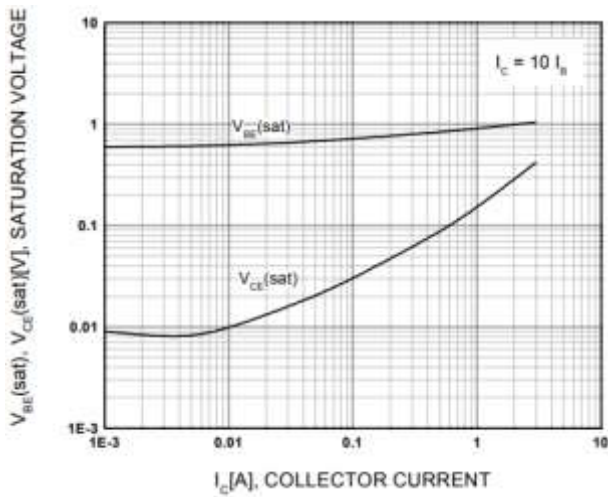


Figure 3. Base-Emitter On Voltage

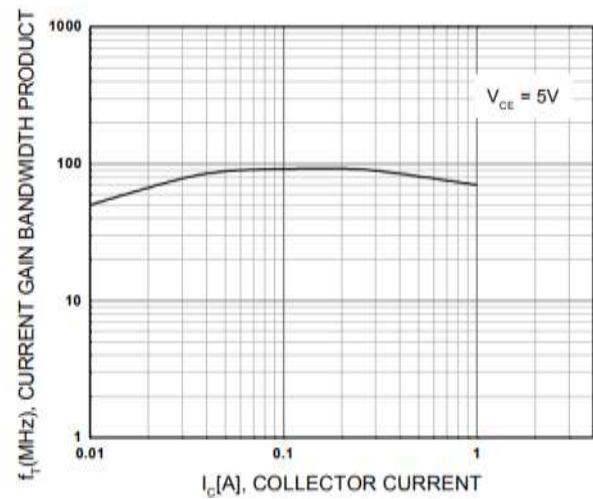


Figure 4. Current Gain Bandwidth Product

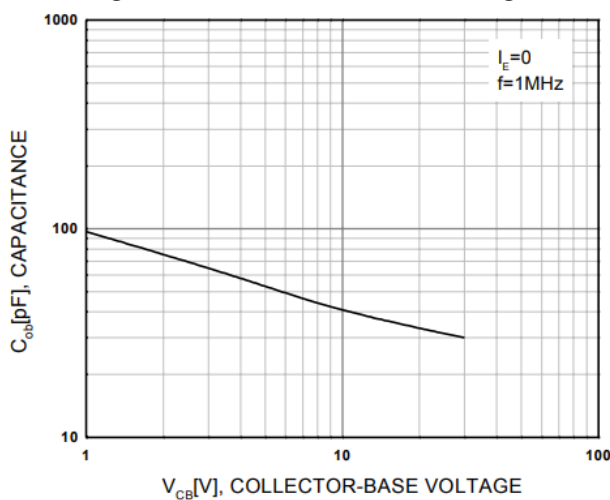
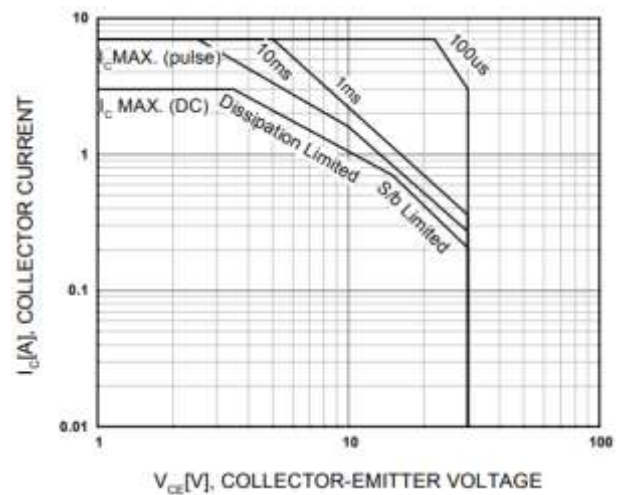
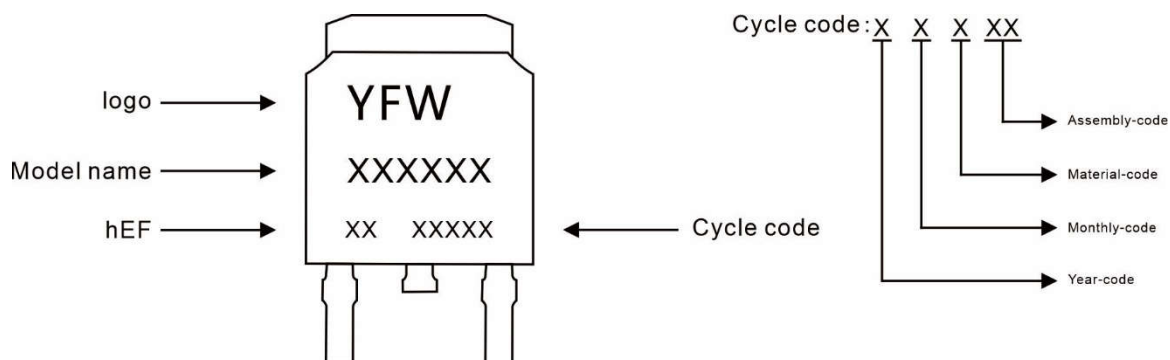


Figure 5. Collector Output Capacitance



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
2SD882AD	TO-252	0.011oz(0.32g)	2500pcs/reel	5000pcs/box 25000pcs/Carton

Package Dimensions

TO-252

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.50	0.087	0.098
A1	0.00	0.12	0.000	0.005
A2	2.20	2.40	0.087	0.094
B	1.20	1.60	0.047	0.063
b	0.50	0.70	0.020	0.028
b1	0.70	0.90	0.028	0.035
c	0.40	0.60	0.016	0.024
c1	0.40	0.60	0.016	0.024
D	6.35	6.65	0.250	0.262
D1	5.20	5.40	0.205	0.213
E	5.40	5.70	0.213	0.224
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	10.00	11.00	0.393	0.433
L1	2.70	3.10	0.106	0.122
L2	1.40	1.80	0.055	0.071
L3	0.90	1.50	0.035	0.059

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