

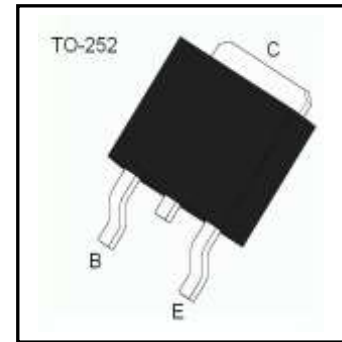
TO-252 Plastic-Encapsulate NPN Transistors

DESCRIPTION

The 2SD882 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 2SB772



Absolute Maximum Rating (Ta=25°C)

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	°C
Storage Temperature	T_{stg}	-55~150	°C

Electrical Characteristics (Ta=25°C)

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			
		$V_{CE} = 2V, I_C = 1.0A$			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 ≤ 350μs, Duty Cycle ≤ 2%

hFE Classification

Classification	R	Q	P	E
h_{FE}	60-120	100-200	160-320	200-400

Typical Characteristics

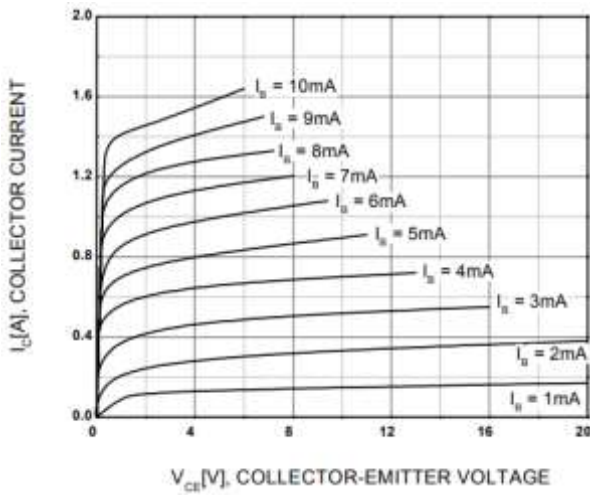


Figure 1. Static Characteristic

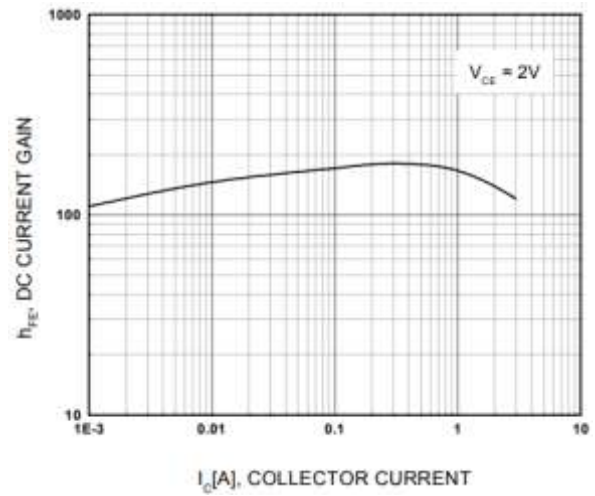


Figure 2. DC current Gain

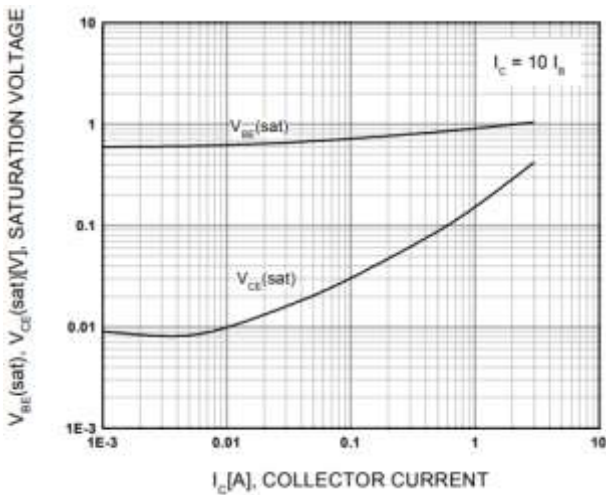


Figure 3. Base-Emitter On Voltage

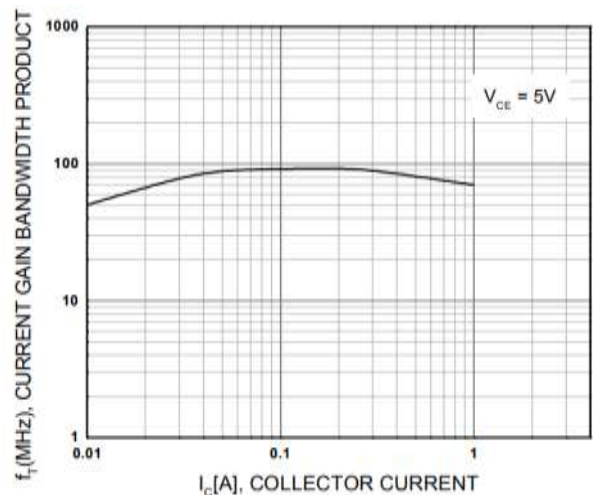


Figure 4. Current Gain Bandwidth Product

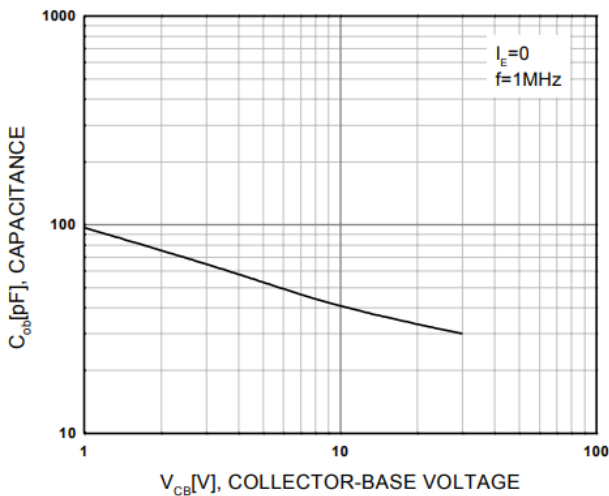
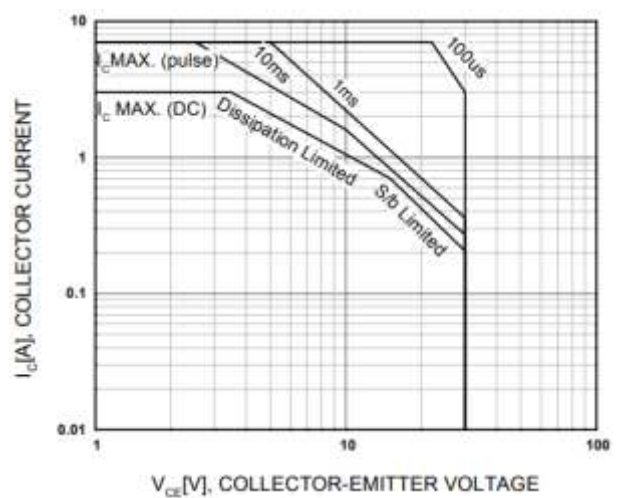


Figure 5. Collector Output Capacitance



Package Dimensions (Unit:mm)
