

Descriptions

Silicon NPN transistor in a TO-126F Plastic Package.

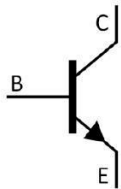
Features

- Low saturation voltage
- Excellent h_{FE} linearity and high h_{FE} .

Applications

- Output stage of 3 watts audio amplifier,
- voltage regulator,
- DC-DC converter and relay driver.

Equivalent Circuit & Pinning



PIN1: Emitter

PIN 2: Collector

PIN 3: Base

h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	R	Q	P	E
h_{FE} Range	60~120	100~200	160~320	200~400

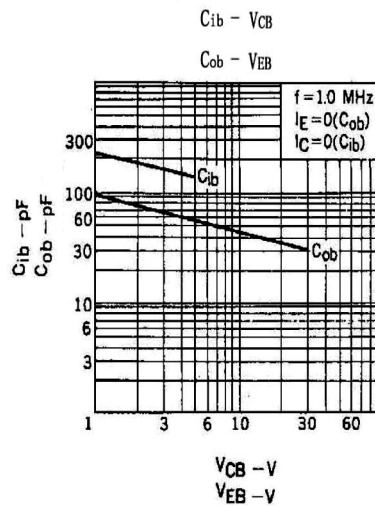
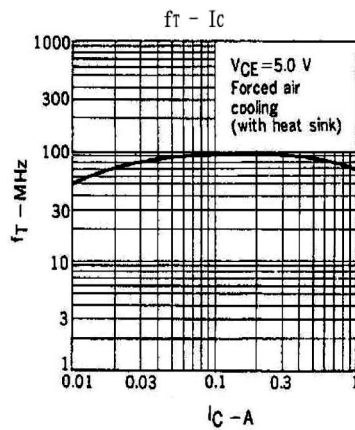
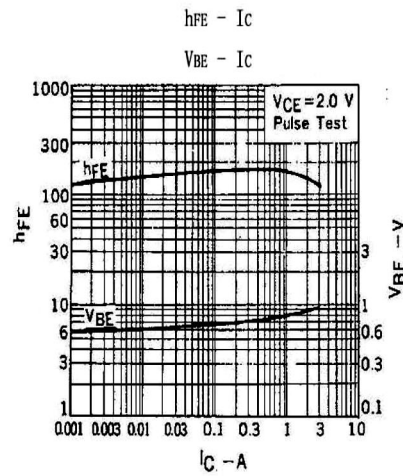
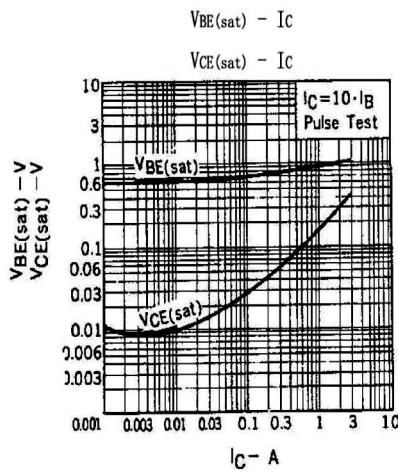
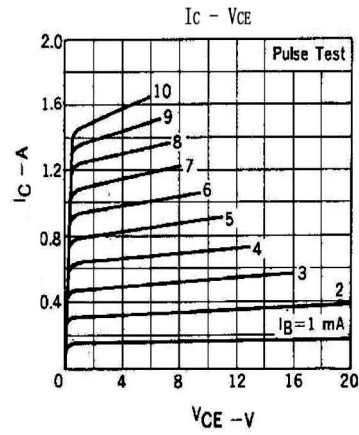
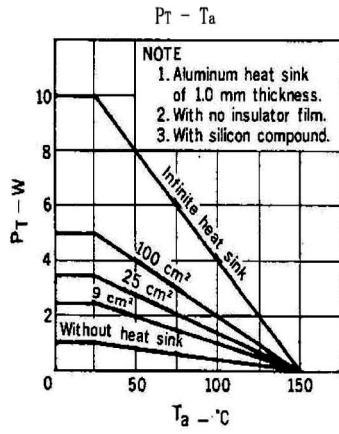
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	3.0	A
Collector Power Dissipation	P_C	1.0	W
	$P_C(T_C=25^\circ\text{C})$	10	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

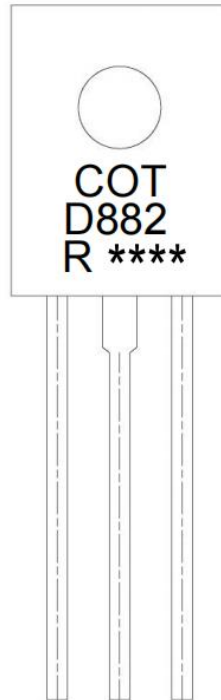
Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V$	$I_E=0$			1.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=3.0V$	$I_C=0$			1.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2.0V$	$I_C=1.0A$	60	160	400	
	$h_{FE(2)}$	$V_{CE}=2.0V$	$I_C=20\text{mA}$	30	150		
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2.0A$	$I_B=0.2A$		0.3	0.5	V
Base to Emitter Voltage	$V_{BE(sat)}$	$I_C=2.0A$	$I_B=0.2A$		1.0	2.0	V
Transition Frequency	f_T	$V_{CE}=5.0V$	$I_C=0.1A$		90		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V$ $f=1.0\text{MHz}$	$I_E=0$		45		pF

Electrical Characteristic Curve



Marking Instructions



Note:

COT: Company Code

D882: Product Type

R: h_{FE} Classifications Symbol

**: Lot No. Code, code change with Lot No

h_{FE} Classifications Symbol	R	Q	P	E
h_{FE} Range	60~120	100~200	160~320	200~400

Packaging SPEC

BULK

Package Type	Units					Dimension (unit: mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-126/F	500	6	3,000	5	15,000	135×190	237×172×102	560×245×195

TUBE

Package Type	Units					Dimension (unit: mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-126/F	65	26	1,690	5	8,450	532×31×5.6	555×164×50	575×290×180

Package Outline Dimensions

T0-126F

单位: mm

