

NPN SILICON POWER TRANSISTOR 2SD882

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DESCRIPTION

The 2SD882 is NPN silicon transistor suited for the output stage of 3 watts audio amplifier, voltage regulator, DC-DC converter and relay driver.

FEATURES

Vево

IC(DC)

- · Low saturation voltage
 - $V_{CE(sat)} = 0.5 \text{ V MAX.}$ (Ic = -2 A, IB = 0.2 A)
- Excellent here linearity and high here here = 60 to 400 (Vce = 2 V, Ic = 1 A)
- Less cramping space required due to small and thin package and reducing the trouble for attachment to a radiator.
 No insulator bushing required.

ABSOLUTE MAXIMUM RATINGS

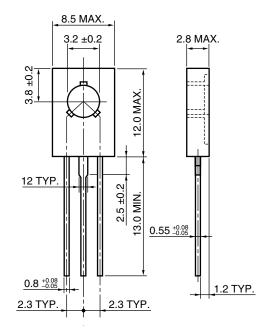
Maximum Temperature -55 to +150°C Storage Temperature Junction Temperature 150°C Maximum Maximum Power Dissipations Total Power Dissipation ($T_A = 25^{\circ}C$) 1.0 W Total Power Dissipation (Tc = 25°C) 10 W Maximum Voltages and Currents (T_A = 25°C) Collector to Base Voltage VcBo 40 V VCEO Collector to Emitter Voltage 30 V

 $I_{\text{C(pulse)}}$ Note Pulse Test PW \leq 350 μ s, Duty Cycle \leq 2%

Emitter to Base Voltage

Collector Current (DC)

* PACKAGE DRAWING (Unit: mm)



- 1: Emitter
- 2: Collector: connected to mounting plane
- Base

ELECTRICAL CHARACTERISTICS (TA = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
DC Current Gain	h _{FE1}	V _{CE} = 2.0 V, I _C = 20 mA ^{Note}	30	150		
DC Current Gain	h _{FE2}	V _{CE} = 2.0 V, I _C = 1.0 A ^{Note}	60	160	400	
Gain Bandwidth Product	f⊤	V _{CE} = 5.0 V, I _C = 0.1 A		90		MHz
Output Capacitance	Cob	V _{CB} = 10 V, I _E = 0, f = 1.0 MHz		45		pF
Collector Cutoff Current	Ісво	V _{CB} = 30 V, I _E = 0 A			1.0	μΑ
Emitter Cutoff Current	ІЕВО	V _{EB} = 3.0 V, I _C = 0 A			1.0	μΑ
Collector Saturation Voltage	V _{CE(sat)}	Ic = 2.0 A, I _B = 0.2 A ^{Note}		0.3	0.5	V
Base Saturation Voltage	V _{BE(sat)}	I _C = 2.0 A, I _B = 0.2 A ^{Note}		1.0	2.0	V

5.0 V

3.0 A

7.0 A

Note Pulse Test: PW \leq 350 μ s, Duty Cycle \leq 2%

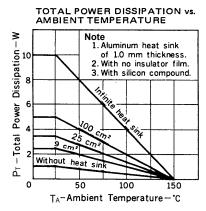
CLASSIFICATION OF hee

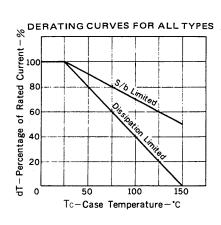
Rank	R	Q	Р	E
Range	60 to 120	100 to 200	160 to 320	200 to 400

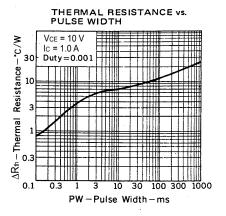
Remark Test Conditions: VcE = 2.0 V, Ic = 1.0 A

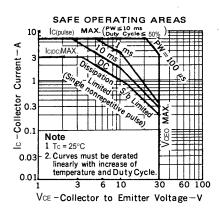
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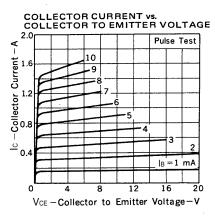
TYPICAL CHARACTERISTICS (TA = 25°C)

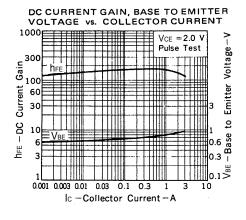


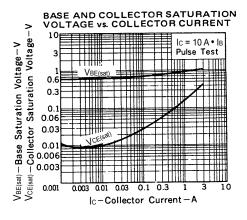


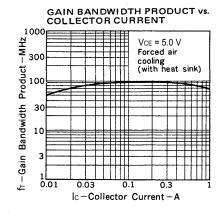


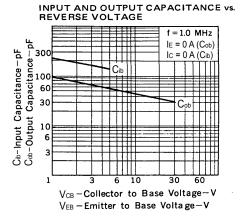












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