



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

2SD882S

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

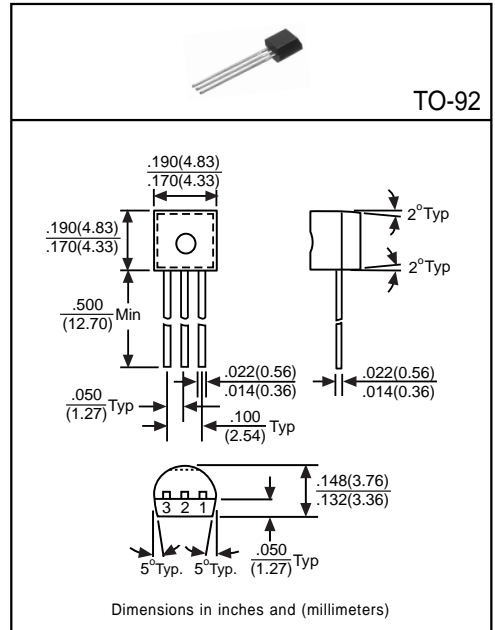
Designed for use in output stage of 0.75W audio amplifier, voltage regulator, DC-DC converter and relay driver.

Pinning

- 1 = Emitter
- 2 = Collector
- 3 = Base

Absolute Maximum Ratings(T<sub>A</sub>=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	40	V
Collector-Emitter Voltage	V <sub>CEO</sub>	30	V
Emitter-Base Voltage	V <sub>EB0</sub>	5	V
Collector Current	I <sub>C</sub>	3	A
Total Power Dissipation	P <sub>D</sub>	750	mW
Junction Temperature	T <sub>J</sub>	+150	°C
Storage Temperature	T <sub>STG</sub>	-55 to +150	°C



Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV <sub>CB0</sub>	40	-	-	V	I <sub>C</sub> =100μA
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	30	-	-	V	I <sub>C</sub> =1mA
Emitter-Base Breakdown Voltage	BV <sub>EB0</sub>	5	-	-	V	I <sub>E</sub> =10μA
Collector Cutoff Current	I <sub>CB0</sub>	-	-	1	μA	V <sub>CB</sub> =30V
Emitter Cutoff Current	I <sub>EB0</sub>	-	-	1	μA	V <sub>EB</sub> =3V
Collector-Emitter Saturation Voltage <sup>(1)</sup>	V <sub>CE(sat)</sub>	-	-	0.5	V	I <sub>C</sub> =2A, I <sub>B</sub> =0.2A
Base-Emitter Saturation Voltage <sup>(1)</sup>	V <sub>BE(sat)</sub>	-	-	2	V	I <sub>C</sub> =2A, I <sub>B</sub> =0.2A
DC Current Gain <sup>(1)</sup>	h <sub>FE1</sub>	30	-	-	-	I <sub>C</sub> =20mA, V <sub>CE</sub> =2V
	h <sub>FE2</sub>	100	-	500	-	I <sub>C</sub> =1A, V <sub>CE</sub> =2V
Transition Frequency	f <sub>T</sub>	-	90	-	MHz	I <sub>C</sub> =0.1A, V <sub>CE</sub> =5V
Output Capacitance	C <sub>ob</sub>	-	45	-	pF	I <sub>E</sub> =0, V <sub>CB</sub> =10V, f=1MHz

(1)Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

Classification of h<sub>FE2</sub>

Rank	Q	P	E
Range	100~200	160~320	250~500