



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DXTB772

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

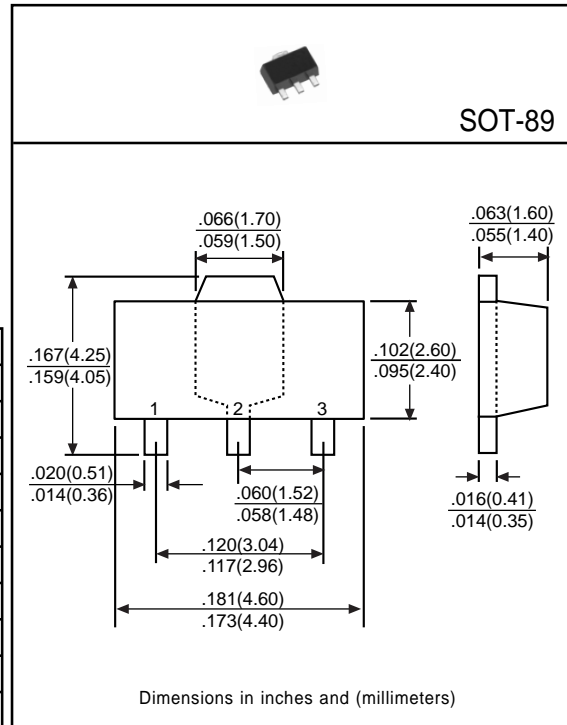
Designed for use in output stage amplifier, voltage regulator, DC-DC converter and driver.

Pinning

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

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>CE0</sub>	-30	V
Emitter-Base Voltage	V <sub>EB0</sub>	-5	V
Collector Current (continuous)	I <sub>C</sub>	-3	A
Collector Current (pulse) <sup>(1)</sup>	I <sub>C</sub>	-7	A
Total Power Dissipation <sup>(2)</sup>	P <sub>D</sub>	1	W
Total Power Dissipation <sup>(3)</sup>	P <sub>D</sub>	2	W
Total Power Dissipation <sup>(4)</sup>	P <sub>D</sub>	1.5	W
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>CE0</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>(5)</sup>	V <sub>CE(sat)</sub>	-	-0.3	-0.5	V	I <sub>C</sub> =-2A, I <sub>B</sub> =-0.2A
Base-Emitter Saturation Voltage <sup>(5)</sup>	V <sub>BE(sat)</sub>	-	-1	-2	V	I <sub>C</sub> =-2A, I <sub>B</sub> =-0.2A
DC Current Gain <sup>(5)</sup>	hFE1	30	-	-	-	I <sub>C</sub> =-20mA, V <sub>CE</sub> =-2V
	hFE2	100	160	500	-	I <sub>C</sub> =-1A, V <sub>CE</sub> =-2V
Transition Frequency	f <sub>T</sub>	-	80	-	MHz	I <sub>C</sub> =-100mA, V <sub>CE</sub> =-5V, f=100MHz
Output Capacitance	C <sub>ob</sub>	-	55	-	pF	V <sub>CB</sub> =-10V, f=1MHz

- (1) Single pulse PW=1ms
- (2) When tested in free air condition, without heat sinking.
- (3) When mounted on a 40x40x1mm ceramic board.
- (4) Printed circuit board 2mm thick, collector plating 1cm square or larger.
- (5) Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%.

Classification of hFE2

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