DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DXTB772

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

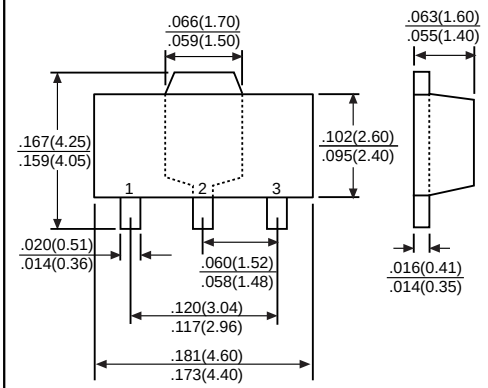
Description

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

Pinning

1 = Base
2 = Collector
3 = Emitter

SOT-89



Dimensions in inches and (millimeters)

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current (continuous)	I_C	-3	A
Collector Current (pulse)(1)	I_C	-7	A
Total Power Dissipation(2)	P_D	1	W
Total Power Dissipation(3)	P_D	2	W
Total Power Dissipation(4)	P_D	1.5	W
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-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 Volatge	BV_{CBO}	-40	-	-	V	I_C=-100μA
Collector-Emitter Breakdown Voltage	BV_{CEO}	-30	-	-	V	I_C=-1mA
Emitter-Base Breakdown Volatge	BV_{EBO}	-5	-	-	V	I_E=-10μA
Collector Cutoff Current	I_{CBO}	-	-	-1	μA	V_{CB}=-30V
Emitter Cutoff Current	I_{EBO}	-	-	-1	μA	V_{EB}=-3V
Collector-Emitter Saturation Voltage(5)	$V_{CE(sat)}$	-	-0.3	-0.5	V	I_C=-2A, I_B=-0.2A
Base-Emitter Saturation Voltage(5)	$V_{BE(sat)}$	-	-1	-2	V	I_C=-2A, I_B=-0.2A
DC Current Gain(5)	h_{FE1}	30	-	-	-	I_C=-20mA, V_{CE}=-2V
	h_{FE2}	100	160	500	-	I_C=-1A, V_{CE}=-2V
Transition Frequency	f_T	-	80	-	MHz	I_C=-100mA, V_{CE}=-5V, f=100MHz
Output Capacitance	C_{ob}	-	55	-	pF	V_{CB}=-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 h_{FE2}

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