



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

MPSA05

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

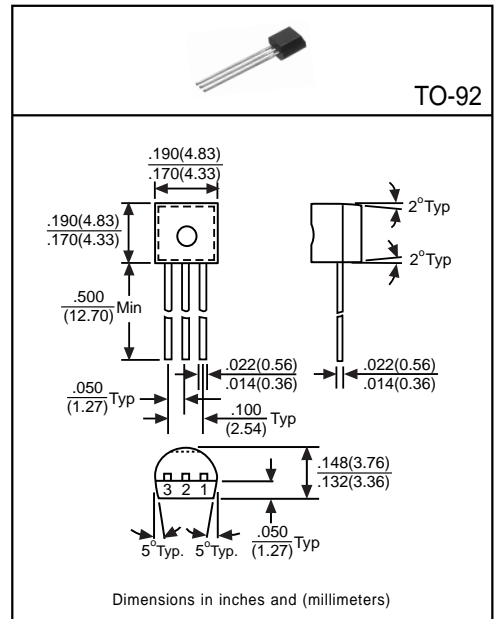
Designed for general purpose amplifier applications.

Pinning

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

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	VCBO	60	V
Collector-Emitter Voltage	VCEO	60	V
Emitter-Base Voltage	VEBO	4	V
Collector Current	IC	500	mA
Total Power Dissipation	PD	625	mW
Junction Temperature	TJ	+150	°C
Storage Temperature	TSTG	-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>	60	-	-	V	IC=100μA, IE=0
Collector-Emitter Breakdown Voltage	BV <sub>CE0</sub>	60	-	-	V	IC=1mA, IB=0
Emitter-Base Breakdown Voltage	BV <sub>EB0</sub>	4	-	-	V	IE=100μA, IC=0
Collector Cutoff Current	ICBO	-	-	0.1	μA	VCB=60V, IE=0
	ICEO	-	-	0.1	μA	VCE=60V, IB=0
Collector-Emitter Saturation Voltage <sup>(1)</sup>	VCE(sat)	-	-	0.25	V	IC=100mA, IB=10mA
Base-Emitter On Voltage <sup>(1)</sup>	VBE(on)	-	-	1.2	V	IC=100mA, VCE=1V
DC Current Gain <sup>(1)</sup>	hFE1	50	-	-	-	IC=10mA, VCE=1V
	hFE2	50	-	-	-	IC=100mA, VCE=1V
Transition Frequency	fT	100	-	-	MHz	IC=10mA, VCE=2V, f=100MHz

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