



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

2SA1300

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

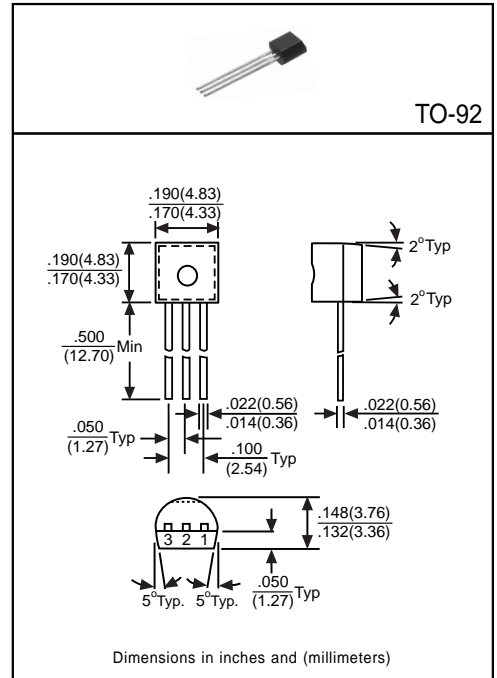
Designed for use Strobe flash and medium power amplifier applications.

Pinning

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

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	-20	V
Collector-Emitter Voltage	V _{CES}	-20	V
	V _{CEO}	-10	V
Emitter-Base Voltage	V _{EBO}	-6	V
Collector Current (DC)	I _C	-2	A
Collector Current (pulse)	I _C	-5	A
Base Current	I _B	-2	A
Total Power Dissipation	P _D	750	mW
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-Emitter Breakdown Voltage	BV _{CEO}	-10	-	-	V	I _C =-10mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EBO}	-6	-	-	V	I _E =-1mA, I _C =0
Collector Cutoff Current	I _{CBO}	-	-	-100	nA	V _{CE} =-20V, I _E =0
Emitter Cutoff Current	I _{EBO}	-	-	-100	nA	V _{BE} =-6V, I _C =0
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)}	-	-0.3	-0.5	V	I _C =-2A, I _B =-50mA
Base-Emitter Voltage	V _{BE}	-	-0.83	-1.5	V	I _C =-2A, V _{CE} =-1V
DC Current Gain ⁽¹⁾	h _{FE1}	140	-	1000	-	I _C =-0.5A, V _{CE} =-1V
	h _{FE2}	60	-	-	-	I _C =-2A, V _{CE} =-1V
Transition Frequency	f _T	-	140	-	MHz	I _C =-0.5A, V _{CE} =-1V
Output Capacitance	C _{ob}	-	50	-	pF	V _{CE} =-10V, f=1KHz, I _E =0

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

Classification of h_{FE1}

Rank	Y	GR	BL	PE
Range	140~280	200~400	300~600	500~1000