



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

2SD879

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

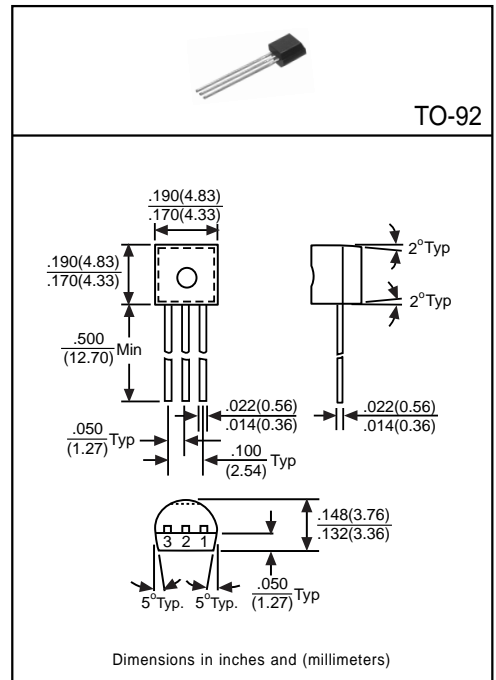
Designed for use in 1.5V and 3V electronic flash.

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>	30	V
Collector-Emitter Voltage	V <sub>CEX</sub>	20	V
	V <sub>CEO</sub>	10	V
Emitter-Base Voltage	V <sub>EBO</sub>	6	V
Collector Current (DC)	I <sub>C</sub>	3	A
Collector Current (pulse)	I <sub>C</sub>	5	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>	30	-	-	V	I <sub>C</sub> =10μA
Collector-Emitter Breakdown Voltage	BV <sub>CEX</sub>	20	-	-	V	I <sub>C</sub> =1mA, V <sub>BE</sub> =3V
	BV <sub>CEO</sub>	10	-	-	V	I <sub>C</sub> =1mA
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	6	-	-	V	I <sub>E</sub> =10μA
Collector Cutoff Current	I <sub>CB0</sub>	-	-	100	nA	V <sub>CB</sub> =20V
Emitter Cutoff Current	I <sub>EBO</sub>	-	-	100	nA	V <sub>BE</sub> =4V
Collector-Emitter Saturation Voltage <sup>(1)</sup>	V <sub>CE(sat)</sub>	-	0.3	0.4	V	I <sub>C</sub> =3A, I <sub>B</sub> =60mA
DC Current Gain <sup>(1)</sup>	h <sub>FE</sub>	140	210	400	-	I <sub>C</sub> =3A, V <sub>CE</sub> =2V
Transition Frequency	f <sub>T</sub>	-	200	-	MHz	I <sub>C</sub> =50mA, V <sub>CE</sub> =10V
Output Capacitance	C <sub>ob</sub>	-	30	-	pF	V <sub>CB</sub> =10V, f=1MHz

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