



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DXTD965

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

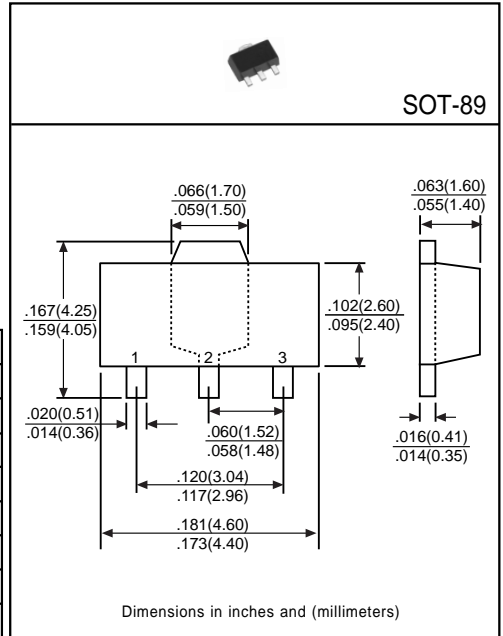
Designed for use in AF output amplifier and flash unit.

Pinning

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

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	40	V
Collector-Emitter Voltage	V <sub>CEO</sub>	20	V
Emitter-Base Voltage	V <sub>EBO</sub>	7	V
Collector Current (continuous)	I <sub>C</sub>	5	A
Collector Current (peak PT=10mS)	I <sub>C</sub>	8	A
Total Power Dissipation	P <sub>D</sub>	1.2	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>CEO</sub>	20	-	-	V	I <sub>C</sub> =1mA
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	7	-	-	V	I <sub>E</sub> =10μA
Collector Cutoff Current	I <sub>CB0</sub>	-	-	0.1	μA	V <sub>CB</sub> =10V
Emitter Cutoff Current	I <sub>EBO</sub>	-	-	0.1	μA	V <sub>EB</sub> =7V
Collector-Emitter Saturation Voltage <sup>(1)</sup>	V <sub>CE(sat)</sub>	-	0.35	1	V	I <sub>C</sub> =3A, I <sub>B</sub> =0.1A
DC Current Gain <sup>(1)</sup>	h <sub>FE1</sub>	340	-	800	-	I <sub>C</sub> =0.5A, V <sub>CE</sub> =2V
	h <sub>FE2</sub>	150	-	-	-	I <sub>C</sub> =2A, V <sub>CE</sub> =2V
Transition Frequency	f <sub>T</sub>	-	150	-	MHz	I <sub>E</sub> =50mA, V <sub>CE</sub> =6V
Output Capacitance	C <sub>ob</sub>	-	-	50	pF	V <sub>CB</sub> =20V, f=1MHz

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

Classification of h<sub>FE1</sub>

Rank	R	S
Range	340~600	560~800