



DC COMPONENTS CO., LTD.
DISCRETE SEMICONDUCTORS

2SD965

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

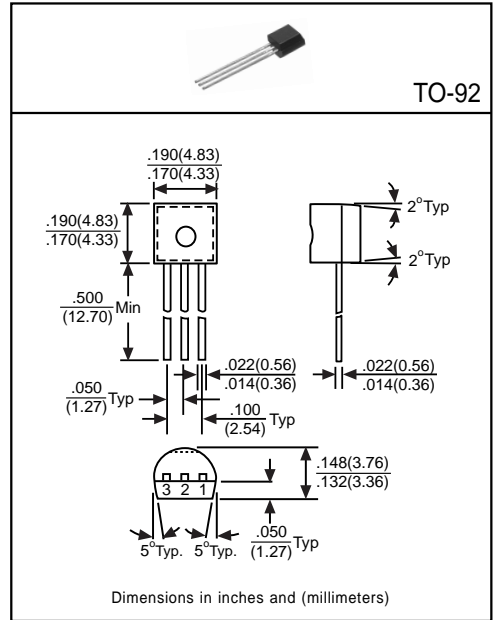
Designed for use as AF output amplifier and flash unit.

Pinning

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

Absolute Maximum Ratings (T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	40	V
Collector-Emitter Voltage	V _{CE0}	20	V
Emitter-Base Voltage	V _{EB0}	7	V
Collector Current	I _C	5	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-Base Breakdown Voltage	BV _{CB0}	40	-	-	V	I _C =100μA, I _E =0
Collector-Emitter Breakdown Voltage	BV _{CE0}	20	-	-	V	I _C =1mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EB0}	7	-	-	V	I _E =10μA, I _C =0
Collector Cutoff Current	I _{CB0}	-	-	0.1	μA	V _{CB} =10V, I _E =0
Emitter Cutoff Current	I _{EB0}	-	-	0.1	μA	V _{EB} =7V, I _C =0
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)}	-	0.35	1	V	I _C =3A, I _B =100mA
DC Current Gain ⁽¹⁾	hFE1	230	-	800	-	I _C =0.5A, V _{CE} =2V
	hFE2	150	-	-	-	I _C =2A, V _{CE} =2V
Transition Frequency	f _T	-	150	-	MHZ	I _E =50mA, V _{CE} =6V
Output Capacitance	C _{ob}	-	-	50	pF	V _{CB} =20V, f=1MHz, I _E =0

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

Classification of hFE1

Rank	Q	R	S
Range	230~380	340~600	560~800