



TO-92 Plastic-Encapsulate Transistors

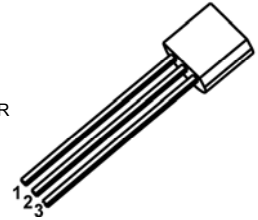
D965 TRANSISTOR (NPN)

FEATURES

- Audio Amplifier
- Flash Unit of Camera
- Switching Circuit

TO-92

- 1. EMITTER
- 2. COLLECTOR
- 3. BASE



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	42	V
V _{CEO}	Collector-Emitter Voltage	22	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	5	A
P _C	Collector Power Dissipation	750	mW
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =0.1mA, I _E =0	42			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	22			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 10μA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =30V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =6V, I _C =0			0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =2V, I _C = 0.15 mA	150			
	h _{FE(2)}	V _{CE} = 2V, I _C = 500 mA	340		2000	
	h _{FE(3)}	V _{CE} =2V, I _C = 2A	150			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =3000mA, I _B =100 mA			0.35	V
Transition frequency	f _T	V _{CE} =6V, I _C =50mA, f=30MHz		150		MHz

CLASSIFICATION OF h_{FE(2)}

Rank	R	T	V
Range	340-600	560-950	900-2000

Typical Characteristics

D965

