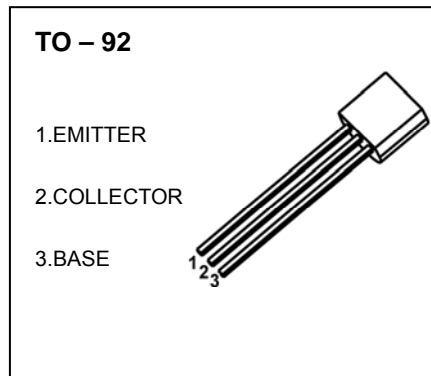


TO-92 Plastic-Encapsulate Transistors

M28S TRANSISTOR (NPN)

FEATURES

- High DC Current Gain and Large Current Capability



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

Symbo	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	40	V
V _{CE0}	Collector-Emitter Sustaining Voltage	20	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current	1	A
P _C	Collector Power Dissipation	0.625	W
R _{θJA}	Thermal Resistance From Junction To Ambient	200	°C/W
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	40			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	20			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =0.1mA, I _C =0	6			V
Collector cut-off current	I _{CB0}	V _{CB} =40V, I _E =0			1	μA
Collector cut-off current	I _{CE0}	V _{CE} =20V, I _B =0			5	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =1V, I _C =1mA	290			
	h _{FE(2)}	V _{CE} =1V, I _C =100mA	300		1000	
	h _{FE(3)}	V _{CE} =10V, I _C =300mA	300			
	h _{FE(4)}	V _{CE} =1V, I _C =500mA	300			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =600mA, I _B =20mA			0.55	V
Transition frequency	f _T	V _{CE} =10V, I _E =50mA, f=30MHz	100			MHz

CLASSIFICATION OF h_{FE(2)}

RANK	B	C	D
RANGE	300-550	500-700	650-1000