

TO-92 Plastic-Encapsulate Transistors

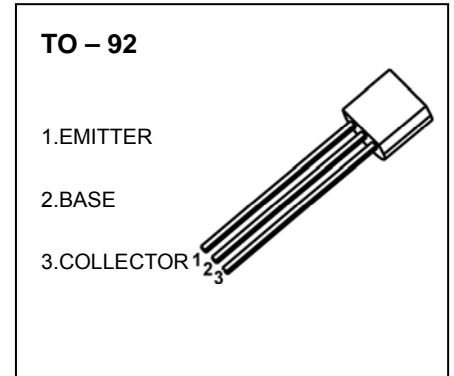
S9018 TRANSISTOR (NPN)

FEATURES

- High Current Gain Bandwidth Product

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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	25	V
V _{CEO}	Collector-Emitter Voltage	18	V
V _{EBO}	Emitter-Base Voltage	4	V
I _C	Collector Current -Continuous	50	mA
P _C	Collector Power Dissipation	0.4	W
R _{θJA}	Thermal Resistance From Junction To Ambient	312.5	°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 =100μA, I _E =0	25			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =0.1mA, I _B =0	18			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	4			V
Collector cut-off current	I _{CBO}	V _{CB} =20V, I _E =0			0.1	nA
Collector cut-off current	I _{CEO}	V _{CE} =15V, I _B =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =3V, I _C =0			0.1	μA
DC current gain	h _{FE}	V _{CE} =5V, I _C =1mA	28		270	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =10mA, I _B =1mA			0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =10mA, I _B =1mA			1.42	V
Transition frequency	f _T	V _{CE} =5V, I _C =50mA, f=400MHz		800		MHz

CLASSIFICATION OF h_{FE}

RANK	D	E	F	G	H	I	J
RANGE	28-45	39-60	54-80	72-108	97-146	132-198	180-270

Typical Characteristics

S9018

