

深圳市晶泰源电子有限公司

BC818-16 BC818-25

BC818-40 TRANSISTOR (NPN)

FEATURES

- For general AF applications
- High collector current
- High current gain
- Low collector-emitter saturation voltage

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

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

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	30	V
V _{CEO}	Collector-Emitter Voltage	25	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	0.5	A
P _C	Collector Power Dissipation	0.3	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{CB0}	I _C = 10μA, I _E =0	30		V
Collector-emitter breakdown voltage	V _{CEO}	I _C = 10mA, I _B =0	25		V
Emitter-base breakdown voltage	V _{EBO}	I _E = 10μA, I _C =0	5		V
Collector cut-off current	I _{CB0}	V _{CB} = 25 V, I _E =0		0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 4V, I _C =0		0.1	μA
DC current gain	h _{FE(1)}	V _{CE} = 1V, I _C = 100mA	100	630	
	h _{FE(2)}	V _{CE} = 1V, I _C = 300mA	60		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 500mA, I _B = 50mA		0.7	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = 500mA, I _B = 50mA		1.2	V
Base-emitter voltage	V _{BE}	V _{CE} =1V, I _C = 500mA		1.2	V
Collector capacitance	C _{ob}	V _{CB} =10V, f=1MHz		6	pF
Transition frequency	f _T	V _{CE} = 5 V, I _C = 50mA f=100MHz		170	MHz

CLASSIFICATION OF h_{FE(1)}

Rank	BC818-16	BC818-25	BC818-40
Range	100-250	160-400	250-630
Marking	6E	6F	6G