

SMD Type

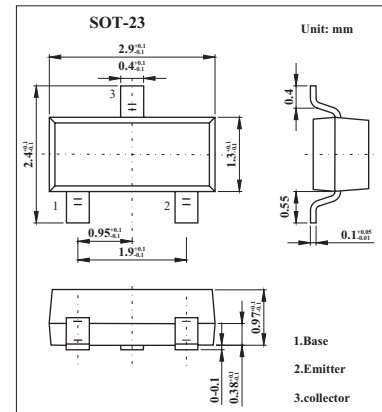
Transistors

NPN Silicon AF Transistors

KC818(BC818)

■ Features

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



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	25	V
Emitter-base voltage	V_{EBO}	5	V
Collector current (DC)	I_C	800	mA
power dissipation	P_D	310	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-to-base breakdown voltage	V_{CBO}	$I_C = 10 \mu\text{A}, V_{BE} = 0$	30			V
Collector-to-emitter breakdown voltage	V_{CEO}	$I_C = 10 \text{ mA}, I_B = 0$	25			V
Emitter-to-base breakdown voltage	V_{EBO}	$I_E = 10 \mu\text{A}, I_C = 0$	5			V
Collector cutoff current	I_{CES}	$V_{CB} = 25 \text{ V}, V_{BE} = 0$			100	nA
Emitter cutoff current	I_{EBO}	$V_{EB} = 4 \text{ V}, I_C = 0$			100	nA
DC current gain *	h_{FE}	$I_C = 100 \text{ mA}, V_{CE} = 1 \text{ V}$	100		630	
		$I_C = 300 \text{ mA}, V_{CE} = 1 \text{ V}$	60			
Collector saturation voltage *	$V_{CE(sat)}$	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$			0.7	V
Base emitter on voltage	$V_{BE(on)}$	$V_{CE} = 1 \text{ V}, I_C = 300 \text{ mA}$			1.2	V
Output Capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, f = 1 \text{ MHz}$			12	pF
Transition frequency	f_T	$I_C = 10 \text{ mA}, V_{CE} = 5 \text{ V}, f = 50 \text{ MHz}$		100		MHz

* Pulsed: $PW \leq 350 \mu\text{s}$, duty cycle $\leq 2\%$

■ Marking

NO.	KC818-16	KC818-25	KC818-40
Marking	8GA	8GB	8GC
h_{FE}	100 ~ 250	160 ~ 400	250 ~ 630