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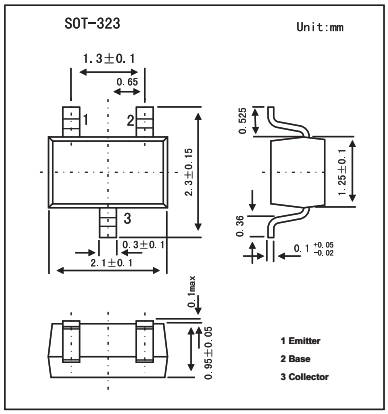
NPN Silicon AF Transistors

KC818W(BC818W)



Features

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

Absolute Maximum Ratings Ta = 25℃

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	500	mA
Peak collector current	I_{CM}	1	A
Base current	I_B	100	mA
power dissipation	P_D	250	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-65 to +150	℃

Electrical Characteristics Ta = 25℃

Parameter		Symbol	Testconditons	Min	Typ	Max	Unit
Collector-to-base breakdown voltage		V_{CBO}	I_C = 10 μA, I_E = 0	30			V
Collector-to-emitter breakdown voltage		V_{CEO}	I_C = 10 mA, I_B = 0	25			V
Emitter-to-base breakdown voltage		V_{EBO}	I_E = 10 μA, I_C = 0	5			V
Collector cutoff current		I_{CBO}	V_{CB} = 25 V, I_E = 0			100	nA
			V_{CB} = 25 V, I_E = 0 , T_A = 150℃			50	μA
Emitter cutoff current		I_{EBO}	V_{EB} = 4 V, I_C = 0			100	nA
DC current gain *	KC818-16W	h_{FE}	I_C = 100 mA, V_{CE} = -1 V	100	160	250	
	KC818-25W			160	250	400	
	KC818-40W			250	350	630	
Collector saturation voltage *		$V_{CE(sat)}$	I_C = 500 mA, I_B = 50 mA			0.7	V
Base to emitter voltage *		$V_{BE(sat)}$	I_C = 500 mA, I_B = 50 mA			1.2	V
Collector-base capacitance		C_{Cb}	V_{CB} = 10 V, f = 1 MHz		6		pF
Emitter-base capacitance		Ceb	V_{EB} = 0.5 V, f = 1 MHz		60		pF
Transition frequency		f_T	I_C = 50 mA, V_{CE} = 5 V, f = 100 MHz		170		MHz

* Pulsed: PW ⩽ 350 μs, duty cycle ⩽ 2%

Marking

NO.	KC818-16W	KC818-25W	KC818-40W
Marking	6E	6F	6G

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