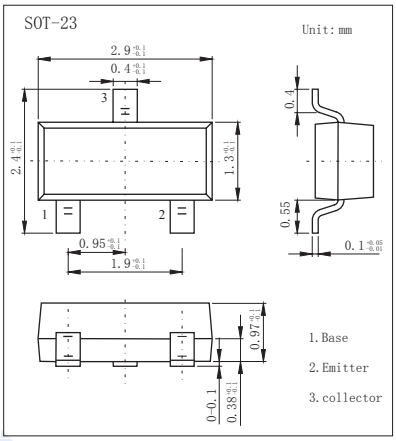
NPN Transistors

BC818 (KC818)



Features

- For general AF applications.
- High collector current.
- High current gain.
- Low collector-emitter saturation voltage.
- Complementary PNP type available(BC808)

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	800	mA
power dissipation	P_D	300	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-65 to +150	℃

Electrical Characteristics Ta = 25℃

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

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

Marking

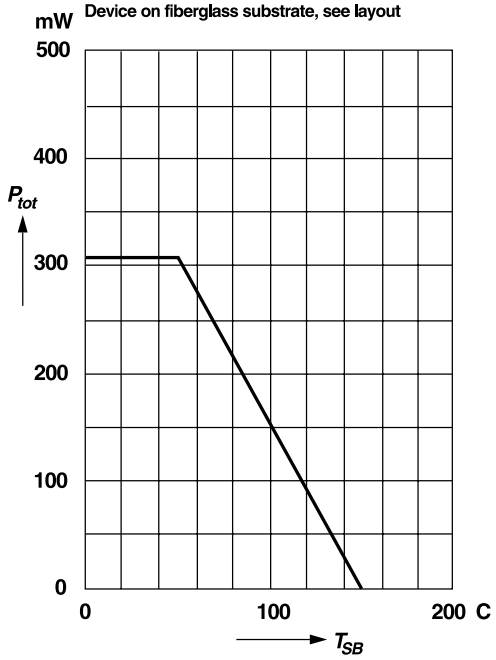
NO.	BC818-16	BC818-25	BC818-40
Marking	6E	6F	6G
hFE	100 ～250	160～400	250～630

BC818 (KC818)

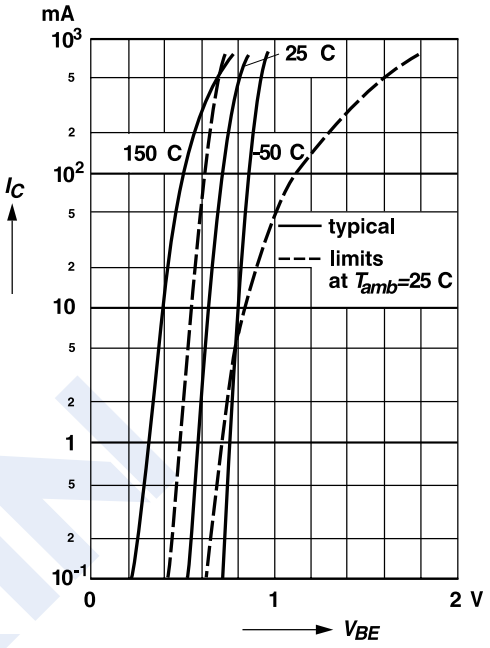
■ Typical Characterisitics

Admissible power dissipation versus temperature of substrate backside

Device on fiberglass substrate, see layout

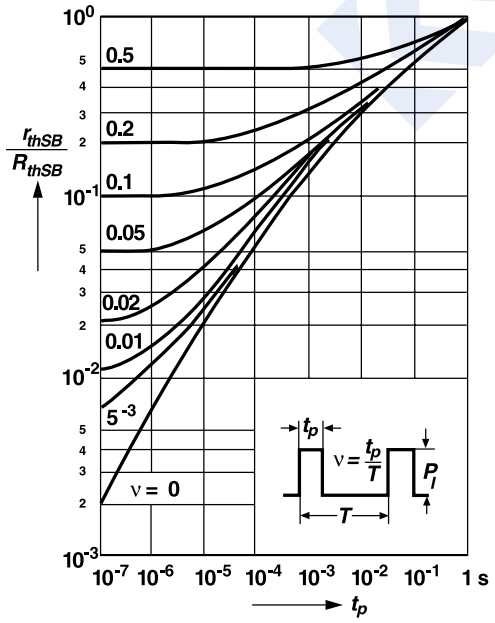


Collector current versus base-emitter voltage

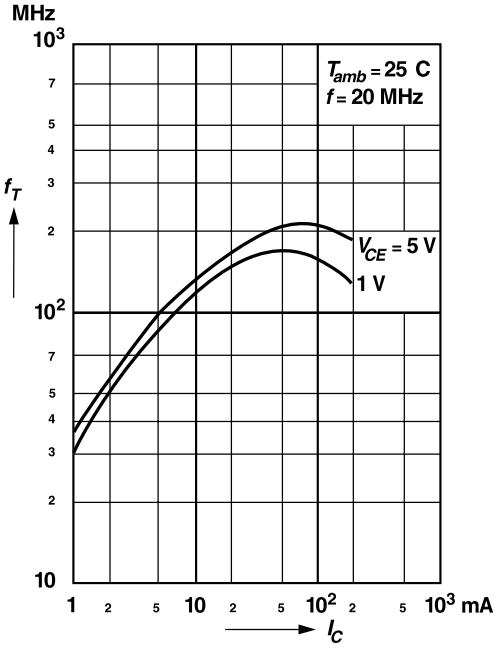


Pulse thermal resistance versus pulse duration (normalized)

Device on fiberglass substrate, see layout



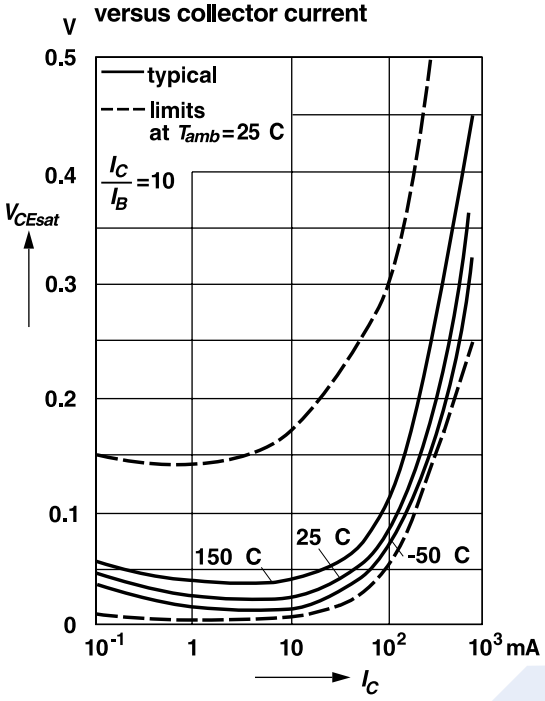
Gain-bandwidth product versus collector current



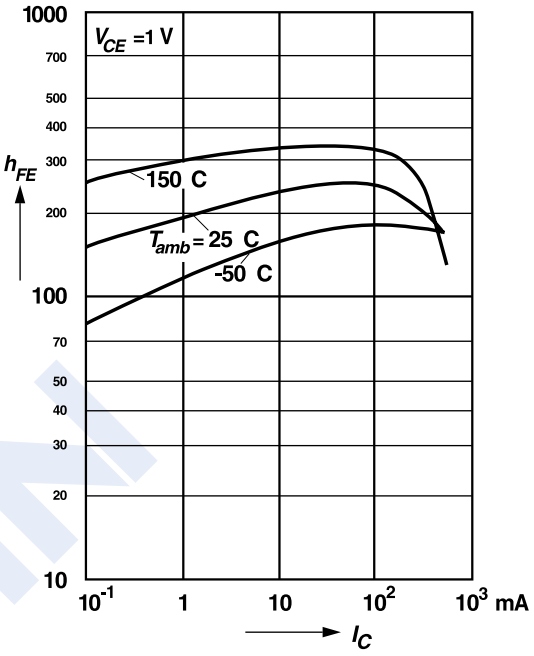
BC818 (KC818)

■ Typical Characterisitics

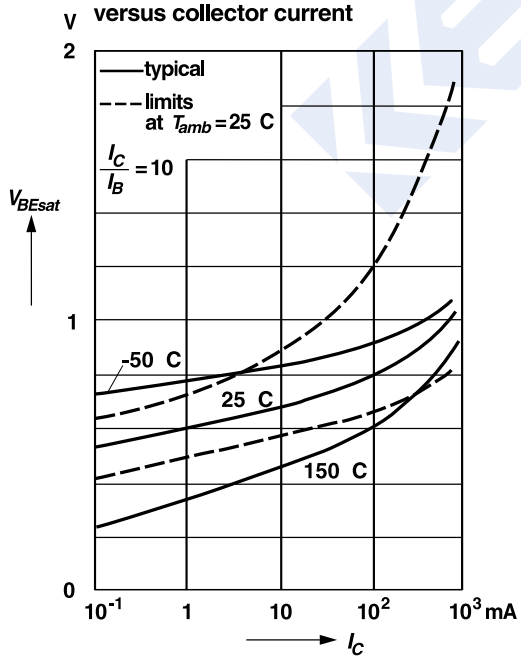
Collector saturation voltage versus collector current



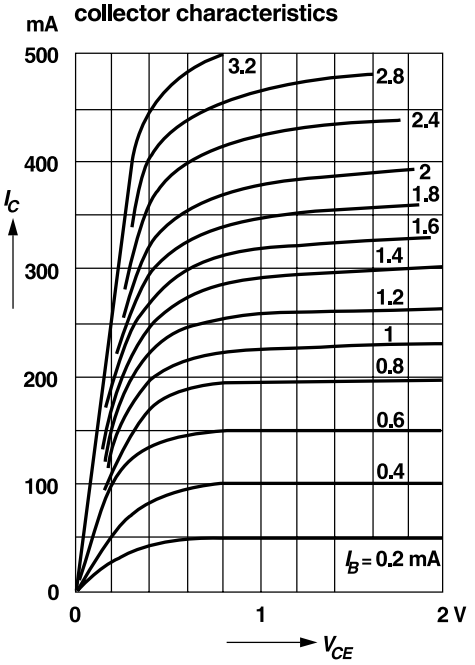
DC current gain versus collector current



Base saturation voltage versus collector current



Common emitter collector characteristics



BC818 (KC818)

■ Typical Characterisitics

