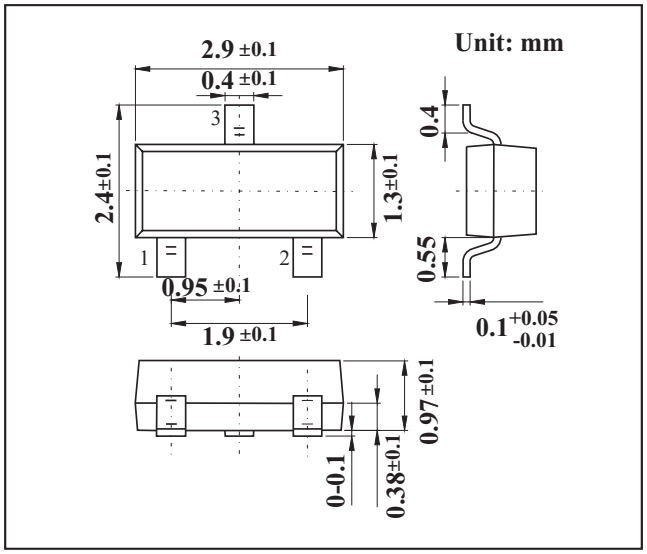
SOT-23 Plastic-Encapsulate Transistors

Features

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

MECHANICAL DATA

- Case style:SOT-23molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

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	℃
Storage temperature	T_{stg}	-65 to +150	℃

PACKAGE INFORMATION

Device	Package	Shipping
BC818	SOT-23	3000/Tape&Reel

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-to-base breakdown voltage	V_{CBO}	I_C = 10 μA,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 = 10 μA, I_C = 0	5			V
Collector cutoff current	I_{CES}	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

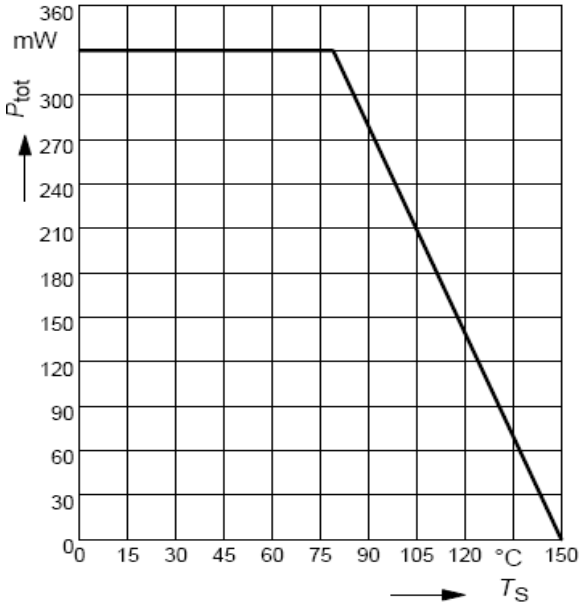
* Pulsed: PW ≤ 350 μs, duty cycle ≤ 2%

■ Marking

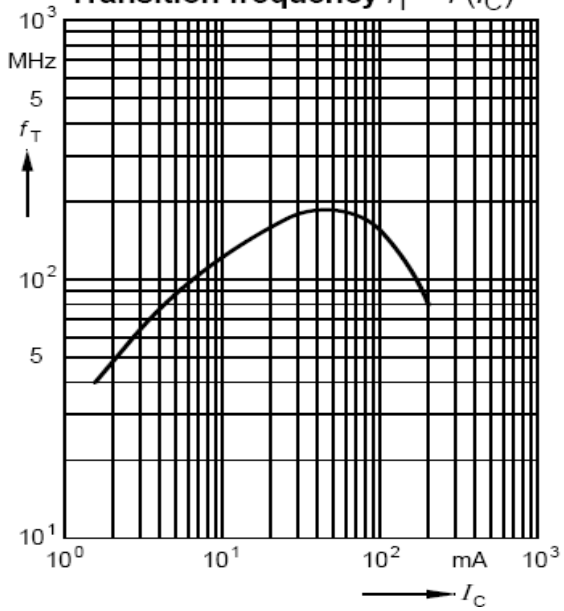
NO.	KC818-16	KC818-25	KC818-40
Marking	8GA	8GB	8GC
hFE	100 ～250	160～400	250～630

RATINGS AND CHARACTERISTIC CURVES

Total power dissipation $P_{tot} = f(T_S)$

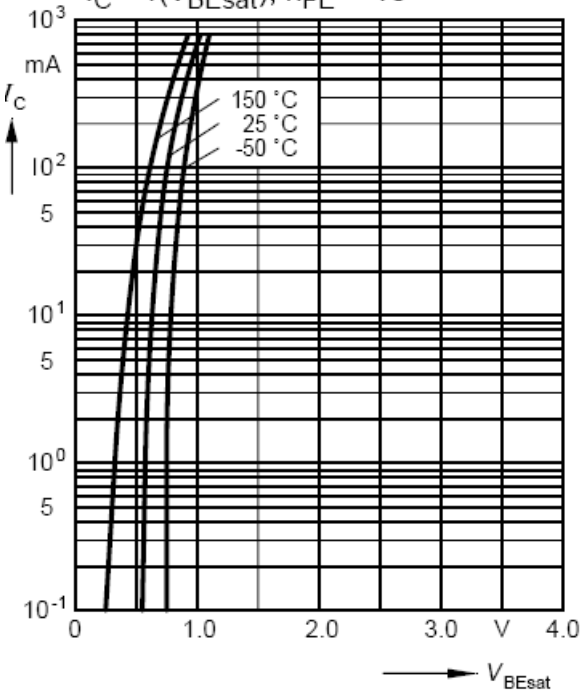


Transition frequency $f_T = f(I_C)$



Base-emitter saturation voltage

$I_C = f(V_{BEsat})$, $h_{FE} = 10$



Collector-emitter saturation voltage

$I_C = f(V_{CEsat})$, $h_{FE} = 10$