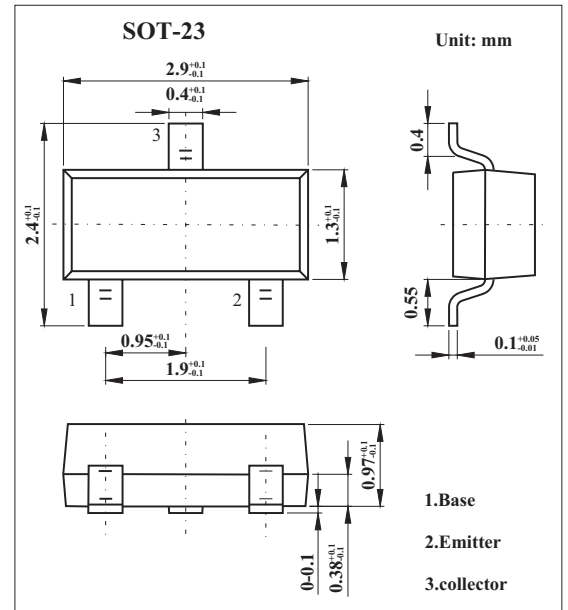## SOT-23 Plastic-Encapsulate Transistors

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

SOT-23 Unit: mm

1. Base
2. Emitter
3. collector

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}	$I_C = 10\ \mu A, V_{BE} = 0$	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}	$I_E = 10\ \mu A, I_C = 0$	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.	BC818-16	BC818-25	BC818-40
Marking	8GA	8GB	8GC
hFE	100～250	160～400	250～630