

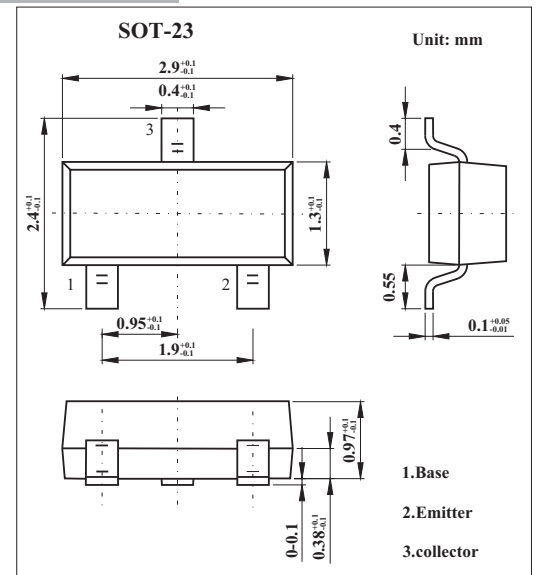
SOT-23 Plastic-Encapsulate Transistors

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-23 molded plastic
- Mounting position: any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	50	V
Collector-emitter voltage	V _{CEO}	45	V
Emitter-base voltage	V _{EB0}	5	V
Collector current (DC)	I _C	800	mA
power dissipation	P _D	310	mW
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-65 to +150	°C

PACKAGE INFORMATION

Device	Package	Shipping
BC817	SOT-23	3000/Tape&Reel

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-to-base breakdown voltage	V _{CB0}	I _C = 10 μA, V _{BE} = 0	50			V
Collector-to-emitter breakdown voltage	V _{CEO}	I _C = 10 mA, I _B = 0	45			V
Emitter-to-base breakdown voltage	V _{EB0}	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.	KC817-16	KC817-25	KC817-40
Marking	8FA	8FB	8FC
h _{FE}	100~250	160~400	250~630