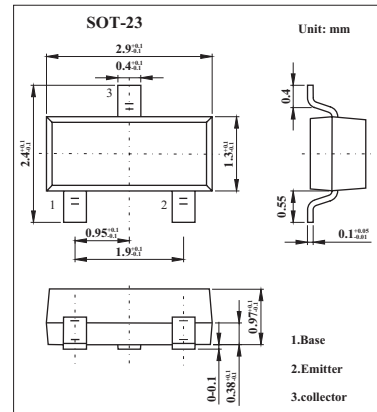


BSS80, BSS82

■ Features

- High DC current gain: 0.1mA to 500 mA.
- Low collector-emitter saturation voltage.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	BSS80	BSS82	Unit
Collector-emitter voltage	V _{CEO}	40	60	V
Collector-base voltage	V _{CBO}	60		V
Emitter-base voltage	V _{EBO}	5		V
Collector current	I _C	800		mA
Peak collector current	I _{CM}	1		A
Base current	I _B	100		mA
Peak base current	I _{BM}	200		mA
Total power dissipation, T _s = 77°C	P _{tot}	330		mW
Junction temperature	T _j	150		°C
Storage temperature	T _{stg}	-65 to +150		°C
Junction - soldering point	R _{thJS}	≤220		K/W

BSS80, BSS82

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Collector-emitter breakdown voltage	BSS80	Ic = 10 mA, Ib = 0	40			V	
	BSS82		60				
Collector-base breakdown voltage	V _{(BR)CBO}	Ic = 10 μA, IE = 0	60			V	
Emitter-base breakdown voltage	V _{(BR)EBO}	IE = 10 μA, Ic = 0	5			V	
Collector cutoff current	ICBO	V _{CB} = 50 V, IE = 0			10	nA	
		V _{CB} = 50 V, IE = 0, TA = 150°C			10	μA	
Emitter cutoff current	IEBO	VEB = 3 V, Ic = 0			10	nA	
DC current gain *	BSS80/82B	Ic = 100 μA, V _{CE} = 10 V	40				
	BSS80/82C		75				
	BSS80/82B	Ic = 1 mA, V _{CE} = 10 V	40				
	BSS80/82C		100				
	BSS80/82B	Ic = 10 mA, V _{CE} = 10 V	40				
	BSS80/82C		100				
	BSS80/82B	Ic = 150 mA, V _{CE} = 10 V	40		120		
	BSS80/82C		100		300		
	BSS80/82B	Ic = 500 mA, V _{CE} = 10 V	40				
	BSS80/82C		50				
Collector-emitter saturation voltage *	V _{CE(sat)}	Ic = 150 mA, Ib = 15 mA			0.4	V	
		Ic = 500 mA, Ib = 50 mA			1.6		
Base-emitter saturation voltage *	V _{BE(sat)}	Ic = 150 mA, Ib = 15 mA			1.3		
		Ic = 500 mA, Ib = 50 mA			2.6		
Transition frequency	f _T	Ic = 20 mA, V _{CE} = 20 V, f = 100 MHz		250			MHz
Collector-base capacitance	C _{cb}	V _{CB} = 10 V, f = 1 MHz		6			pF
Delay time	t _d	V _{CC} = 30 V, Ic = 150 mA, Ib1 = 15 mA, V _{BE(off)} = 0.5 V			10	ns	
Rise time	t _r	V _{CC} = 30 V, Ic = 150 mA, Ib1 = 15 mA, V _{BE(off)} = 0.5 V			40	ns	
Storage time	t _{stg}	V _{CC} = 30 V, Ic = 150 mA, Ib1 = Ib2 = 15 mA,			80	ns	
Fall time	t _f	V _{CC} = 30 V, Ic = 150 mA, Ib1 = Ib2 = 15 mA,			30	ns	

* Pulse test: t ≤ 300μs, D = 2%.

■ hFE Classification

TYPE	BSS80	
Rank	B	C
Marking	CHs	CJs

TYPE	BSS82	
Rank	B	C
Marking	CLs	CMs