

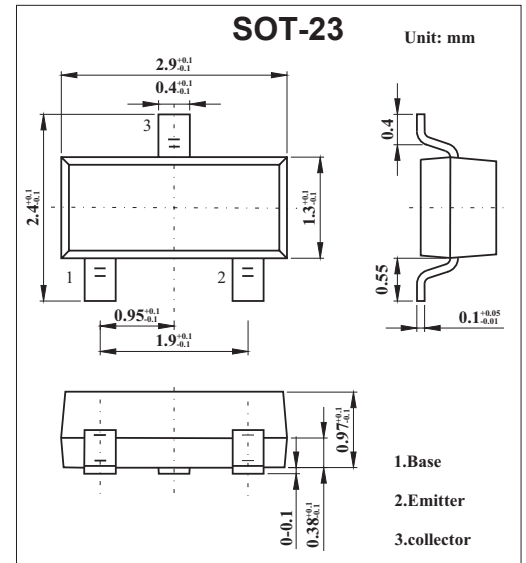
SOT-23 Plastic-Encapsulate Transistors

Features

- High DC Current gain.
- High emitter-base voltage.
- Low $V_{ce(sat)}$.

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_{CBO}	25	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	12	V
Collector current	I_c	0.5	A
		1 *	
Collector power dissipation	P_c	0.2	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

* Single pulse $P_w=100ms$.

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	$I_c=10i$ A	25			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_c=1mA$	20			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E=10i$ A	12			V
Collector cutoff current	I_{CBO}	$V_{CB}=20V$			0.5	μ A
Emitter cutoff current	I_{EBO}	$V_{EB}=10V$			0.5	μ A
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c/I_B=500mA/20mA$		0.18	0.4	V
DC current transfer ratio	h_{FE}	$V_{CE}=3V, I_c=10mA$	820		2700	
Output capacitance *	f_r	$V_{CE}=10V, I_E=-50mA, f=100MHz$		350		MHz
Transition frequency	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		8.0		pF
Output On-resistance	R_{on}	$I_B=1mA, V_i=100mV(rms), f=1kHz$		0.8		Ω

* Measured using pulse current.

h_{FE} Classification

Marking	BB	
	V	W
h_{FE}	820~1800	1200~2700