

MMBT4123

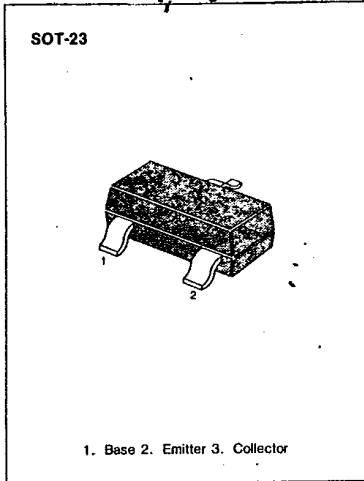
NPN EPITAXIAL SILICON TRANSISTOR

T-29-19

GENERAL PURPOSE TRANSISTOR

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	40	V
Collector-Emitter Voltage	V _{CEO}	30	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	200	mA
Collector Dissipation	P _C	350	mW
Storage Temperature	T _{stg}	150	°C
Thermal Resistance Junction to Ambient	R _{th(j-a)}	357	°C/W

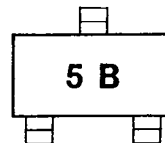


ELECTRICAL CHARACTERISTICS (T_a = 25°C)

Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	BV _{CB0}	I _C = 10μA, I _E = 0	40		V
* Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C = 1mA, I _E = 0	30		V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E = 10μA, I _C = 0	5		V
Collector Cutoff Current	I _{CB0}	V _{CB} = 20V, I _E = 0		50	nA
Emitter Cutoff Current	I _{EBO}	V _{BE} = 3V, I _C = 0		50	nA
* DC Current Gain	h _{FE}	V _{CE} = 1V, I _C = 2mA	50	150	
		V _{CE} = 1V, I _C = 50mA	25		
* Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = 50mA, I _B = 5mA		0.3	V
* Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C = 50mA, I _B = 5mA		0.95	V
Current Gain-Bandwidth Product	f _T	V _{CE} = 20V, I _C = 10mA, f = 100MHz	250		MHz
Collector Output Capacitance	C _{ob}	V _{CB} = 5V, I _E = 0, f = 100MHz		4	pF
Collector Input Capacitance	C _{ib}	V _{BE} = 0.5V, I _C = 0, f = 100KHz		8	pF
Collector-Base Capacitance	C _{cb}	V _{CB} = 5V, I _E = 0, f = 100KHz		4	pF
Noise Figure	NF	V _{CE} = 5V, I _C = 100μA, R _s = 1kΩ Noise Bandwidth = 10Hz to 15.7KHz		6	dB

* Pulse Test: PW ≤ 300μs, Duty Cycle ≤ 2%

Marking



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