

MMBTH24 NPN EPITAXIAL SILICON TRANSISTOR**VHF MIXER TRANSISTOR**

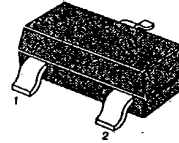
T-31-19

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}	4	V
Collector Current	I _C	100	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

* Refer to MPSH24 for graphs

SOT-23



1. Base 2. Emitter 3. Collector

ELECTRICAL CHARACTERISTICS (T_a = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV _{CB0}	I _C = 100μA, I _E = 0	40			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C = 1mA, I _B = 0	30			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E = 10μA, I _C = 0	4			V
Collector Cutoff Current	I _{CB0}	V _{CB} = 15V, I _E = 0			50	nA
DC Current Gain	h _{FE}	V _{CE} = 10V, I _C = 8mA	30			
* Current Gain-Bandwidth Product	f _T	V _{CE} = 10V, I _C = 8mA f = 100MHz	400	620		MHz
Collector-Base Capacitance	C _{cb}	V _{CB} = 10V, I _E = 0, f = 1MHz		0.25	0.36	pF
Conversion Gain (213MHz to 45MHz)	C _G	I _C = 8mA, V _{CC} = 20V Oscillator Injection = 150mV	19	24		dB
(60MHz to 45MHz)			24	29		dB

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

Marking

