TAIGITON

MMBTH10

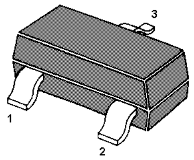
TRANSISTOR (NPN)

FEATURES

- VHF/UHF Transistor

MARKING: 3EM

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current	50	mA
P_C	Collector Power Dissipation	225	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	556	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	3			V
Collector cut-off current	I_{CBO}	V_{CB}=25V, I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=2V, I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=10V, I_C=4mA	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=4mA, I_B=0.4mA			0.5	V
Base-emitter voltage	V_{BE}	V_{CE}=10V, I_C=4mA			0.95	V
Transition frequency	f_T	V_{CE}=10V, I_C=4mA f=100MHz	650			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz			0.7	pF