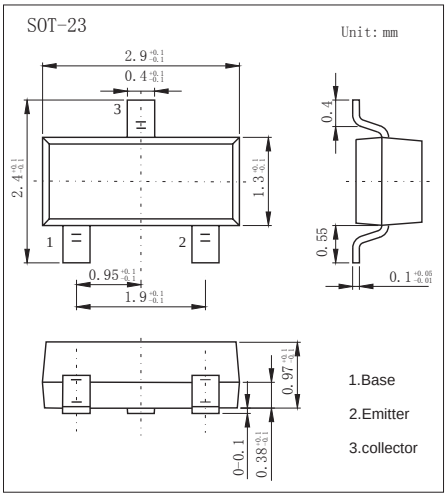
HFZT

MMBT5551

SOT-23 Plastic-Encapsulate Transistors

FEATURES

- Complementary to MMBT5401
- Ideal for Medium Power Amplification and Switching



MECHANICAL DATA

- Case style:SOT-23molded plastic
- Mounting position:any

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	600	mA
P_C	Collector Power Dissipation	300	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	416	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

PACKAGE INFORMATION

Device	Package	Shipping
MMBT5551	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=1mA, I_B=0	160			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=120V, I_E=0			50	nA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0			50	nA
DC current gain	$h_{FE(1)}$*	V_{CE}=5V, I_C=1mA	80			
	$h_{FE(2)}$*	V_{CE}=5V, I_C=10mA	100		300	
	$h_{FE(3)}$*	V_{CE}=5V, I_C=50mA	50			
Collector-emitter saturation voltage	$V_{CE(sat)1}$*	I_C=10mA, I_B=1mA			0.15	V
	$V_{CE(sat)2}$*	I_C=50mA, I_B=5mA			0.2	V
Base-emitter saturation voltage	$V_{BE(sat)1}$*	I_C=10mA, I_B=1mA			1	V
	$V_{BE(sat)2}$*	I_C=50mA, I_B=5mA			1	V
Transition frequency	f_T	V_{CE}=10V,I_C=10mA, f=100MHz	100		300	MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz			6	pF

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

CLASSIFICATION OF $h_{FE(2)}$

RANK	L	H
RANGE	100-200	200-300

MARKING: G1

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics