

DESCRIPTION

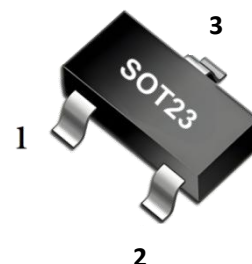
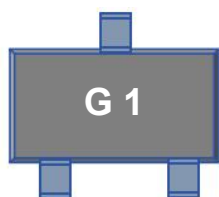
The MMBT5551 is a high voltage fast-switching NPN power transistor. It is characterized with high breakdown voltage, high current gain and high switching speed.

FEATURES

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

MARKING

Type Code: Marking: G 1



1. BASE
2. EMITER
3. COLLECOR

ABSOLUTE MAXIMUM RATINGS (Tc=25°C, unless otherwise specified)

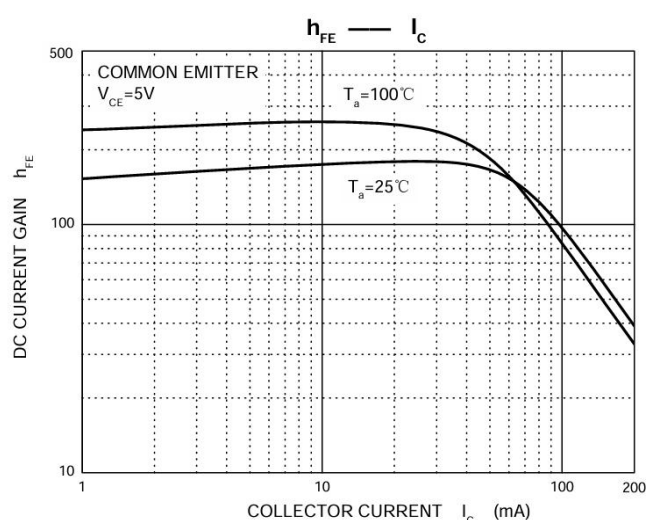
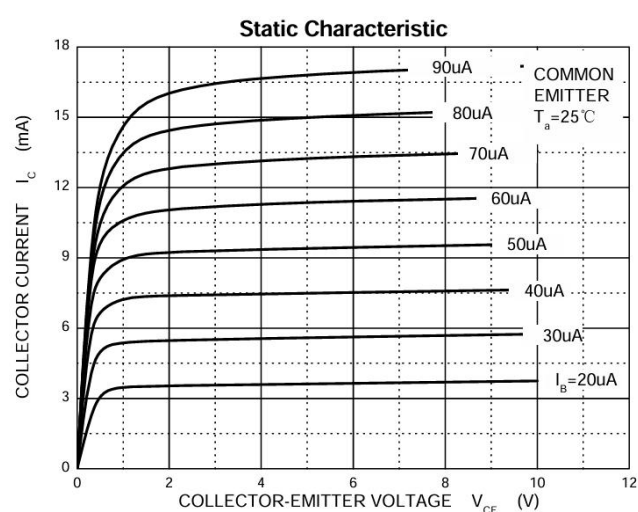
SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector-base voltage	180	V
V _{CEO}	Collector-emitter voltage	160	V
V _{EB0}	Emitter-base voltage	6	V
I _c	Collector current	0.6	A
P _c	Collector Power Dissipation	300	mW
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C
R _{θJA}	Thermal Resistance From Junction To Ambient	416	°C/W

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

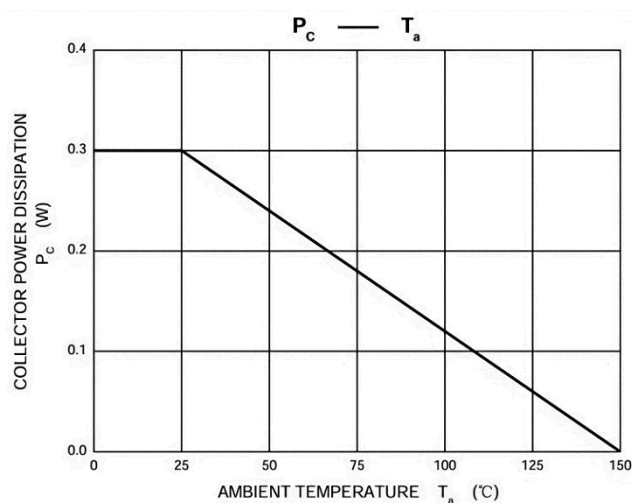
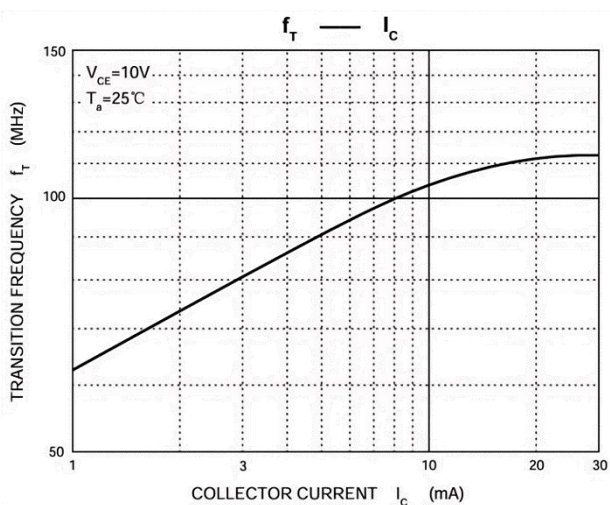
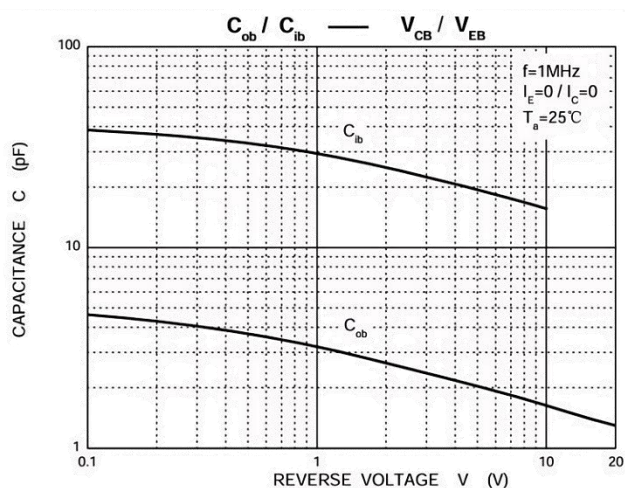
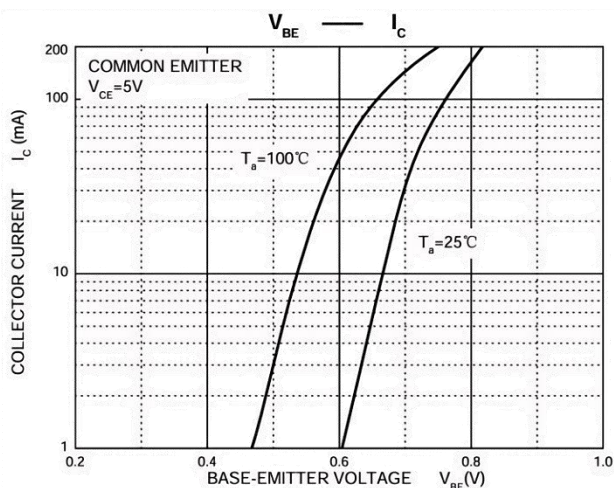
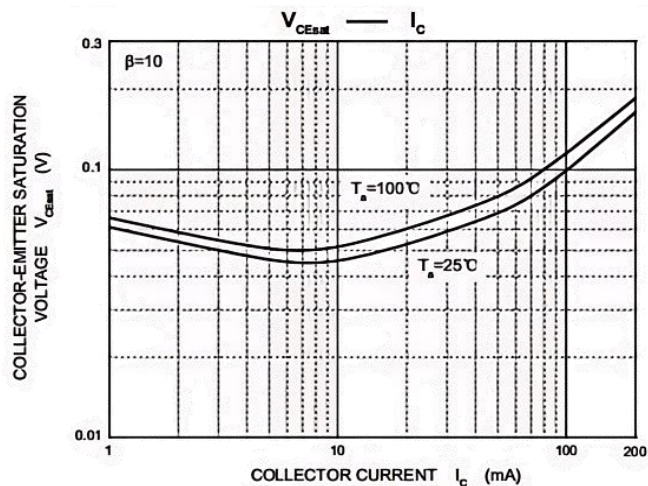
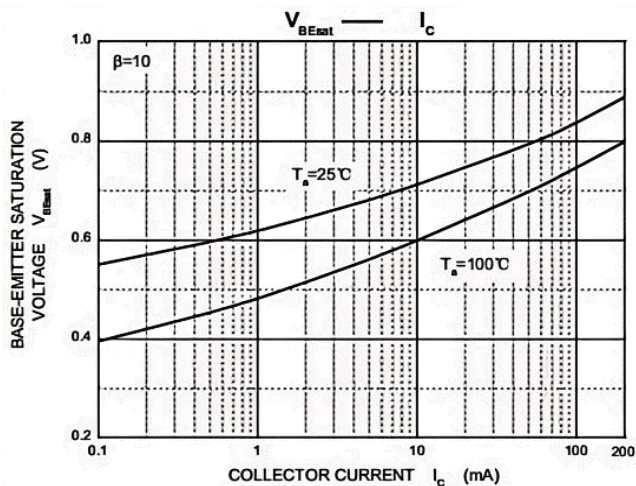
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

**■ ELECTRICAL CHARACTERISTICS (T_c=25°C, unless otherwise specified)**

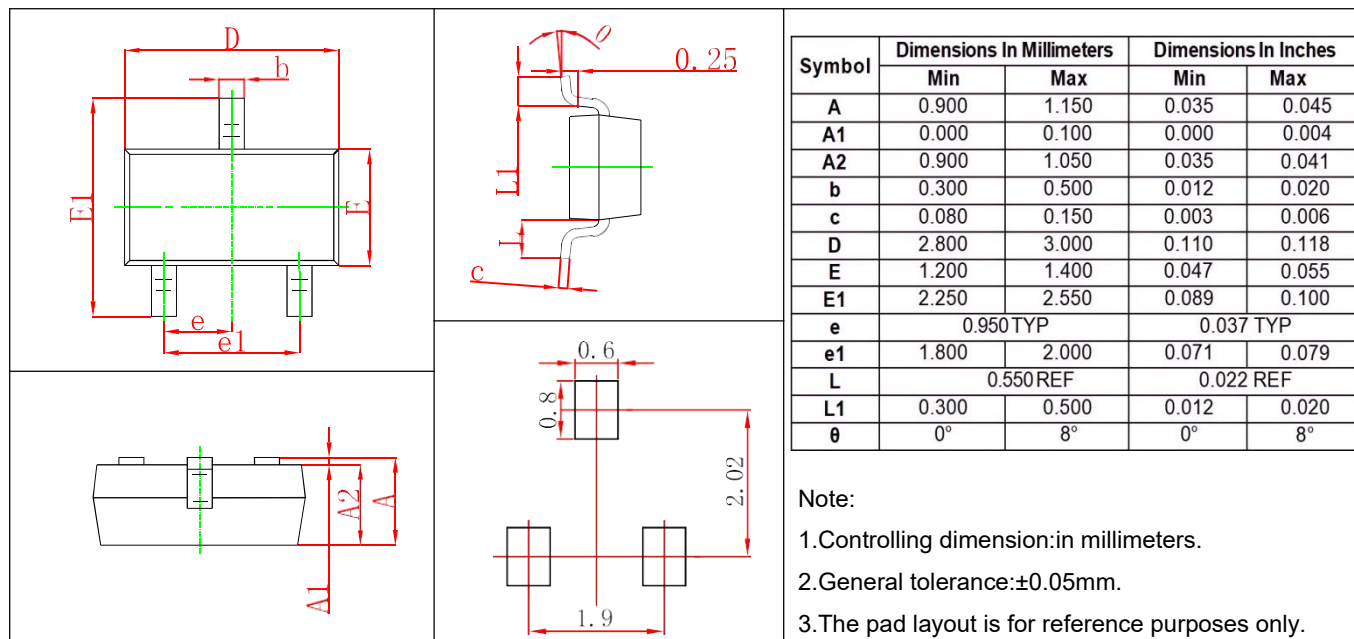
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	180		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=1mA, I_B=0$	160		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6		V
Collector cutoff current	I_{CBO}	$V_{CB}=120V, I_E=0$		50	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$		50	nA
DC Current Gain (CLASSIFICATION OF h_{FE2})	h_{FE1}^*	$V_{CE}=5V, I_C=1mA$	80		
	h_{FE2}^*	A $V_{CE}=5V, I_C=10mA$	100	200	
		B $V_{CE}=5V, I_C=10mA$	200	300	
		C $V_{CE}=5V, I_C=10mA$	300	450	
Collector-emitter saturation voltage	h_{FE3}^*	$V_{CE}=5V, I_C=50mA$	50		
	$V_{CE(sat)}^*$	$I_C=10mA, I_B=1mA$		0.15	V
Base-Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C=50mA, I_B=5mA$		0.2	V
	$V_{BE(sat)}^*$	$I_C=10mA, I_B=1mA$		1	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}^*$	$I_C=50mA, I_B=5mA$		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 $\leq 300\mu s$, duty cycles $\leq 2.0\%$.**■ TYPICAL CHARACTERISTICS**

■ TYPICAL CHARACTERISTICS(Con.t)



■ SOT23 PACKAGE OUTLINE DIMENSIONS



■ REEL PACKING

