

## GSMBT5551 NPN EPITAXIAL PLANAR TRANSISTOR

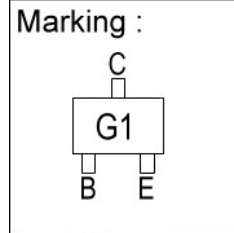
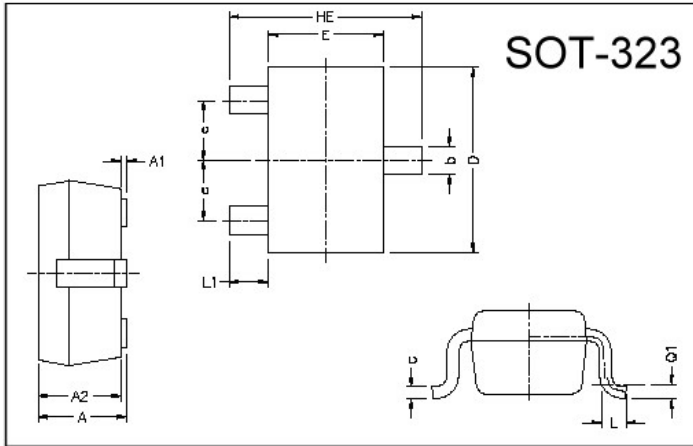
### Description

The GSMBT5551 is designed for general purpose applications requiring high breakdown voltage.

### Features

- High Collector-Emitter Breakdown Voltage ( $BV_{CEO}=160V @ I_C=1mA$ )
- Complementary to GSMBT5401

### Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.80	1.10	L1	0.42	REF.
A1	0	0.10	L	0.15	0.35
A2	0.80	1.00	b	0.25	0.40
D	1.80	2.20	c	0.10	0.25
E	1.15	1.35	e	0.65 REF.	
HE	1.80	2.40	Q1	0.15 BSC.	

### Absolute Maximum Ratings at $T_a = 25^\circ C$

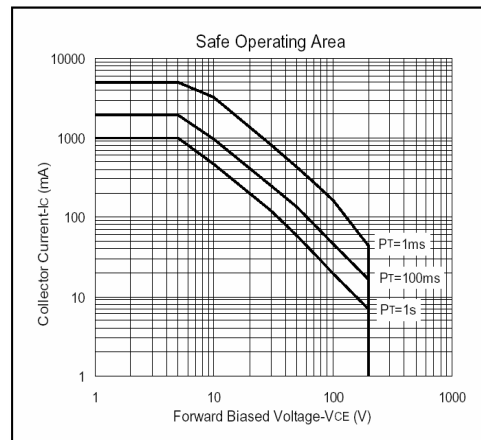
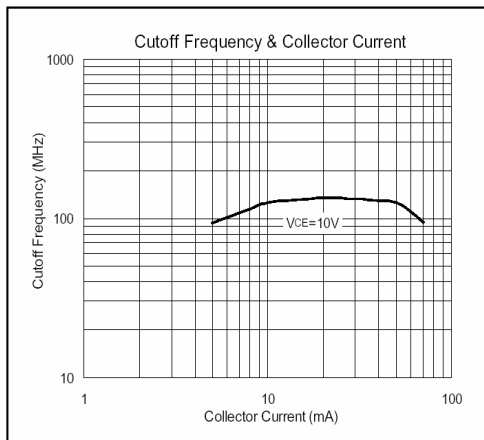
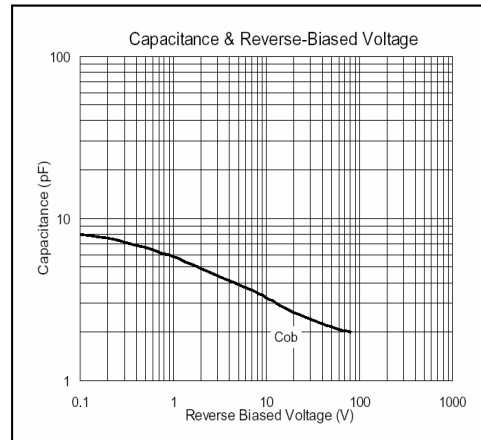
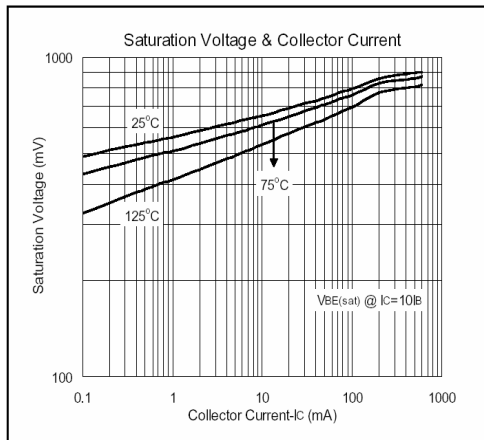
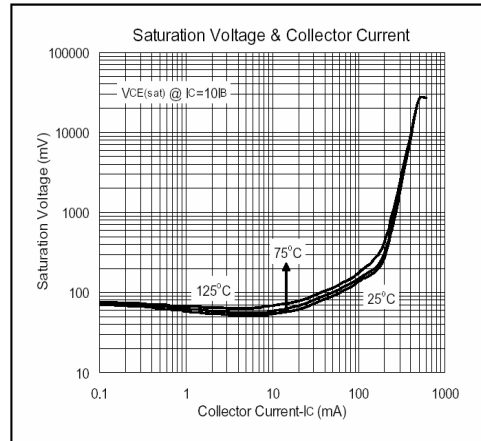
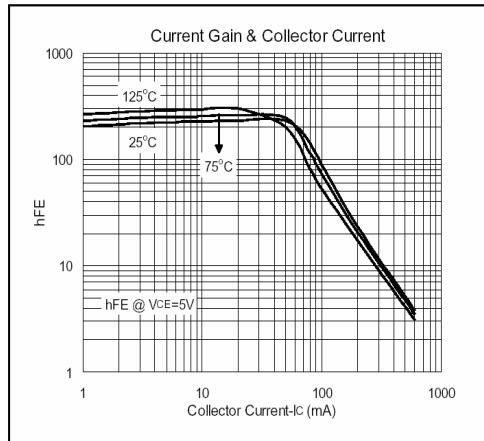
Parameter	Symbol	Ratings	Unit
Junction Temperature	$T_j$	+150	$^\circ C$
Storage Temperature	$T_{stg}$	-55~+150	$^\circ C$
Collector to Base Voltage	$V_{CBO}$	180	V
Collector to Emitter Voltage	$V_{CEO}$	160	V
Emitter to Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	600	mA
Total Power Dissipation	$P_D$	225	mW

### Electrical Characteristics ( $T_a = 25^\circ C$ )

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$BV_{CBO}$	180	-	-	V	$I_C=100\mu A, I_E=0$
$BV_{CEO}$	160	-	-	V	$I_C=1mA, I_B=0$
$BV_{EBO}$	6	-	-	V	$I_E=10\mu A, I_C=0$
$I_{CBO}$	-	-	50	nA	$V_{CB}=120V, I_E=0$
$I_{EBO}$	-	-	50	nA	$V_{EB}=4V, I_C=0$
* $V_{CE(sat)1}$	-	-	150	mV	$I_C=10mA, I_B=1mA$
* $V_{CE(sat)2}$	-	-	200	mV	$I_C=50mA, I_B=5mA$
* $V_{BE(sat)1}$	-	-	1	V	$I_C=10mA, I_B=1mA$
* $V_{BE(sat)2}$	-	-	1	V	$I_C=50mA, I_B=5mA$
* $h_{FE1}$	80	-	-		$V_{CE}=5V, I_C=1mA$
* $h_{FE2}$	80	-	250		$V_{CE}=5V, I_C=10mA$
* $h_{FE3}$	30	-	-		$V_{CE}=5V, I_C=50mA$
fT	100	-	300	MHz	$V_{CE}=10V, I_C=10mA, f=100MHz$
Cob	-	-	6	pF	$V_{CB}=10V, I_E=0, f=1MHz$

\* Pulse Test: Pulse Width  $\leq 380\mu s$ , Duty Cycle  $\leq 2\%$

## Characteristics Curve



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