

GTM CORPORATION

ISSUED DATE :2005/08/31
REVISED DATE :

GSMBT5551 NPN EPITAXIAL PLANAR TRANSISTOR

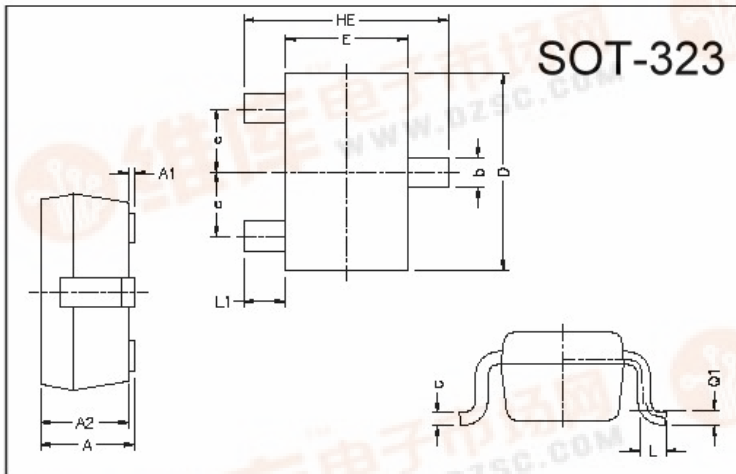
Description

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

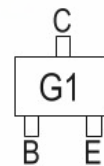
Features

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

Package Dimensions



Marking :



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 $T_a = 25^\circ C$

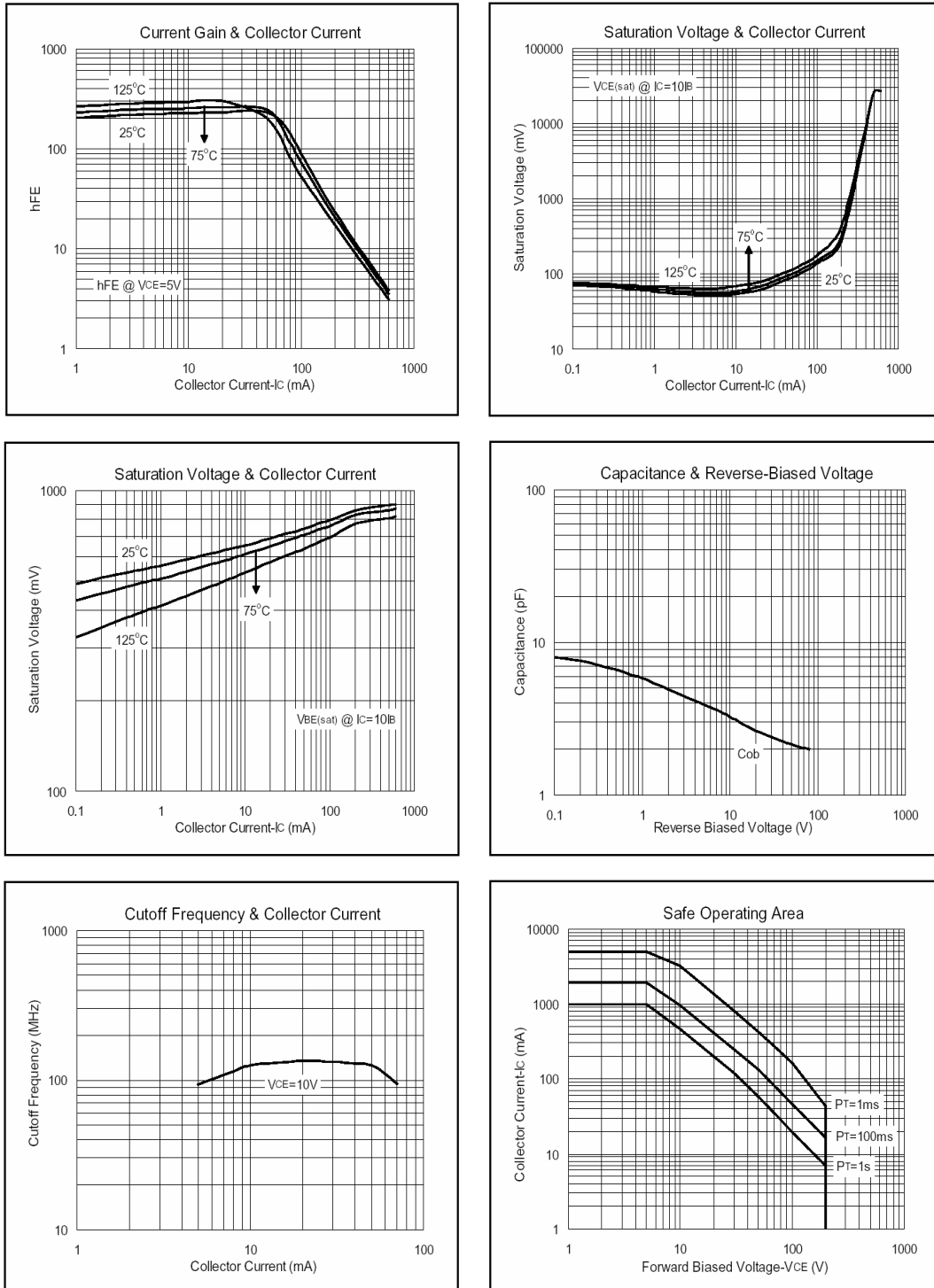
Parameter	Symbol	Ratings	Unit
Junction Temperature	T_j	+150	$^\circ C$
Storage Temperature	T_{stg}	-55~+150	$^\circ C$
Collector to Base Voltage	V_{CBO}	180	V
Collector to Emitter Voltage	V_{CEO}	160	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current	I_C	600	mA
Total Power Dissipation	P_D	225	mW

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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Head Office And Factory:

- **Taiwan:** No. 17-1 Tatung Rd. Fu Kou Hsin-Chu Industrial Park, Hsin-Chu, Taiwan, R. O. C.
TEL : 886-3-597-7061 FAX : 886-3-597-9220, 597-0785
- **China:** (201203) No.255, Jang-Jiang Tsai-Lueng RD. , Pu-Dung-Hsin District, Shang-Hai City, China
TEL : 86-21-5895-7671 ~ 4 FAX : 86-21-38950165