

## GSMBT4076 NPN EPITAXIAL PLANAR TRANSISTOR

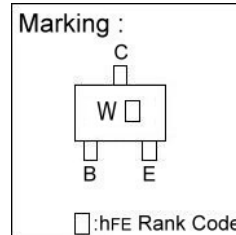
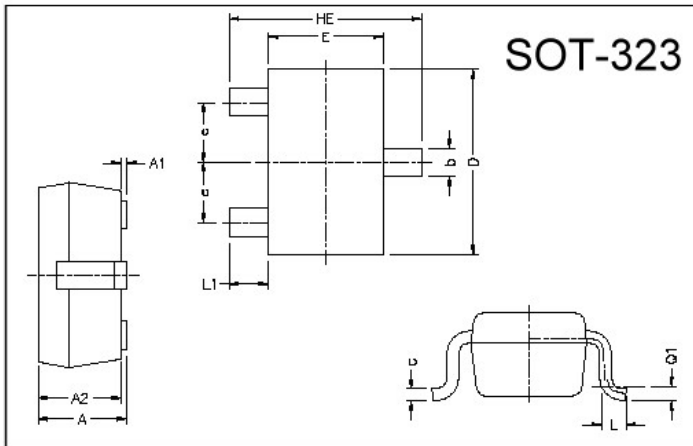
### Description

The GSMBT4076 is designed for general purpose switching and amplifier applications.

### Features

- Excellent hFE Linearity :  $hFE2=25$  (Min.) @  $V_{CE}=6V$ ,  $I_C=400mA$
- Complementary to GSMBT2015

### 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	$V_{CB0}$	35	V
Collector to Emitter Voltage	$V_{CE0}$	30	V
Emitter to Base Voltage	$V_{EB0}$	5	V
Collector Current	$I_C$	500	mA
Base Current	$I_B$	50	mA
Total Power Dissipation	$P_D$	250	mW

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

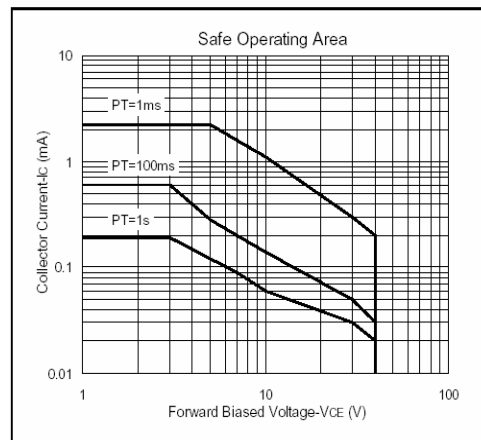
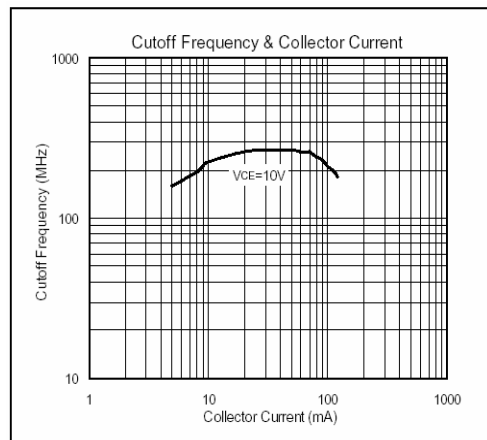
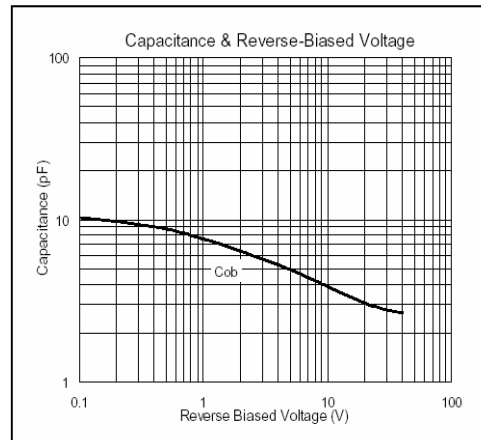
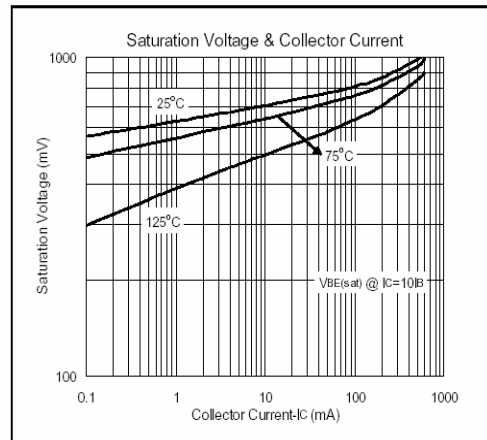
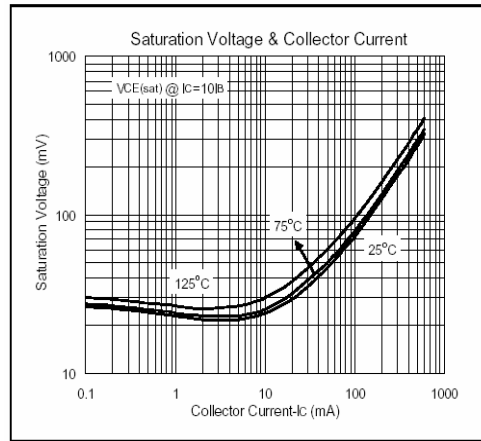
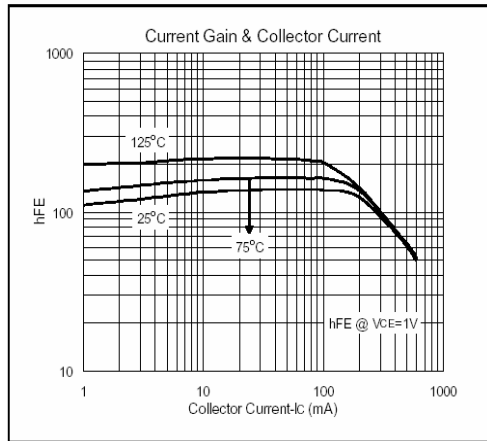
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$V_{CB0}$	35	-	-	V	$I_C=100\mu A$ , $I_E=0$
$V_{CE0}$	30	-	-	V	$I_C=1mA$ , $I_B=0$
$V_{EB0}$	5	-	-	V	$I_E=10\mu A$ , $I_C=0$
$I_{CB0}$	-	-	100	nA	$V_{CB}=35V$ , $I_E=0$
$I_{EB0}$	-	-	100	nA	$V_{EB}=5V$ , $I_C=0$
* $V_{CE(sat)}$	-	-	250	mV	$I_C=100mA$ , $I_B=10mA$
* $V_{BE(sat)}$	-	-	1.2	V	$I_C=500mA$ , $I_B=50mA$
* $h_{FE1}$	70	-	240		$V_{CE}=1V$ , $I_C=100mA$
* $h_{FE2}$	25	-	-		$V_{CE}=6V$ , $I_C=400mA$
fT	250	-	-	MHz	$V_{CE}=10V$ , $I_C=20mA$ , $f=100MHz$
Cob	-	-	6.5	pF	$V_{CB}=10V$ , $I_E=0$ , $f=1MHz$

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

### Classification Of hFE

Rank	WO	WY
hFE1 Range	70 - 140	120 - 240
hFE2 Range	Min. 25	Min. 40

## Characteristics Curve



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