

GSMBT4076 NPN EPITAXIAL PLANAR TRANSISTOR

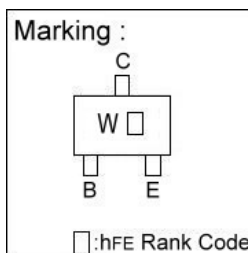
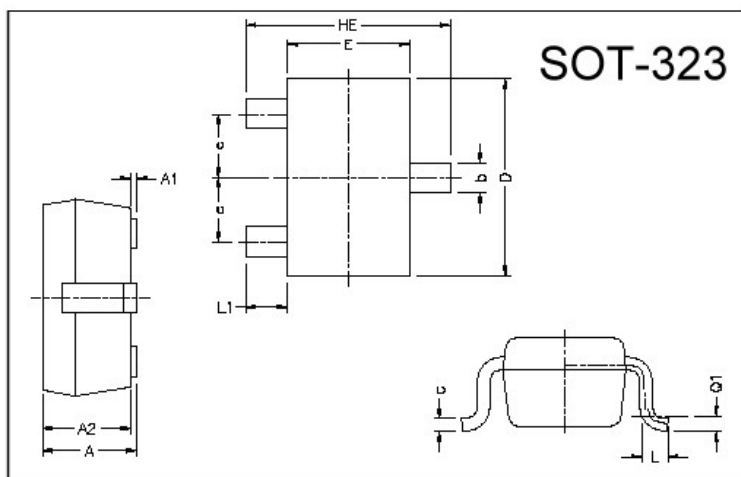
Description

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_{CBO}	35	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Base Current	I_B	50	mA
Total Power Dissipation	P_D	250	mW

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

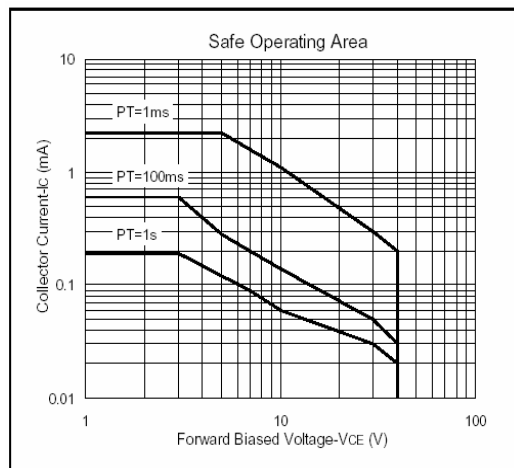
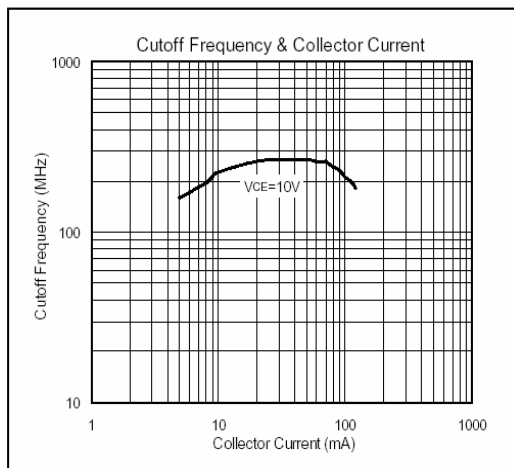
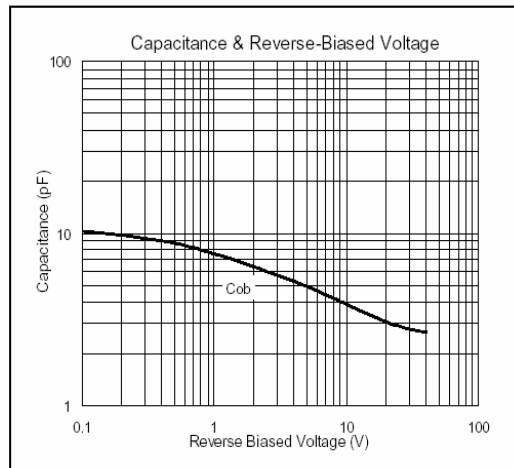
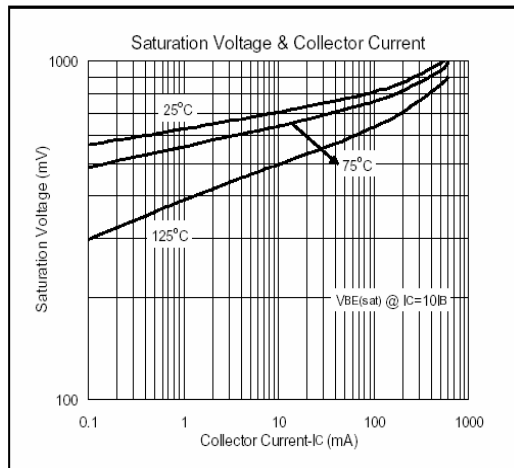
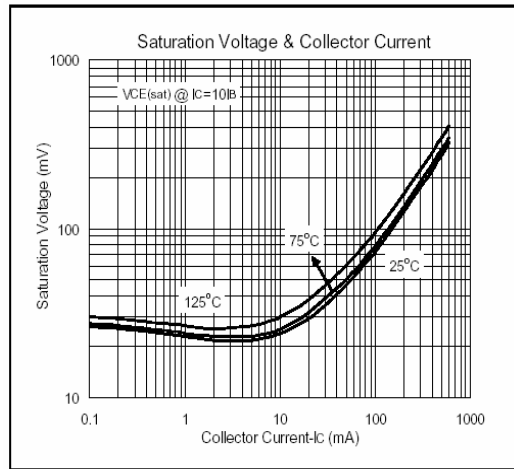
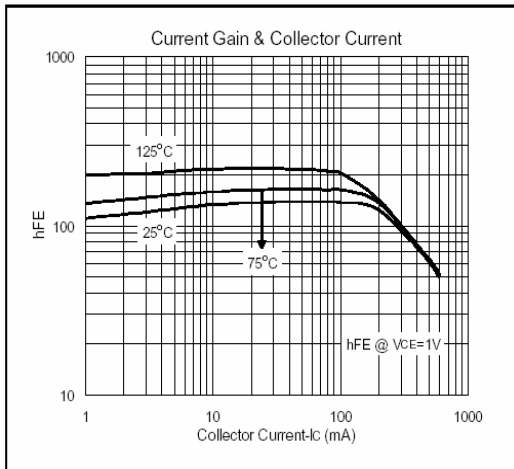
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V_{CBO}	35	-	-	V	$I_C=100\mu A$, $I_E=0$
V_{CEO}	30	-	-	V	$I_C=1mA$, $I_B=0$
V_{EBO}	5	-	-	V	$I_E=10\mu A$, $I_C=0$
I_{CBO}	-	-	100	nA	$V_{CB}=35V$, $I_E=0$
I_{EBO}	-	-	100	nA	$V_{EB}=5V$, $I_C=0$
* $V_{CE(sat)}$	-	-	250	mV	$I_C=100mA$, $I_B=10mA$
* $V_{BE(sat)}$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