

GSMBT4075 NPN EPITAXIAL PLANAR TRANSISTOR

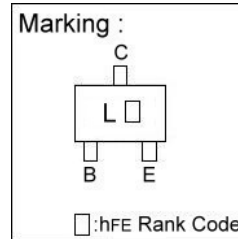
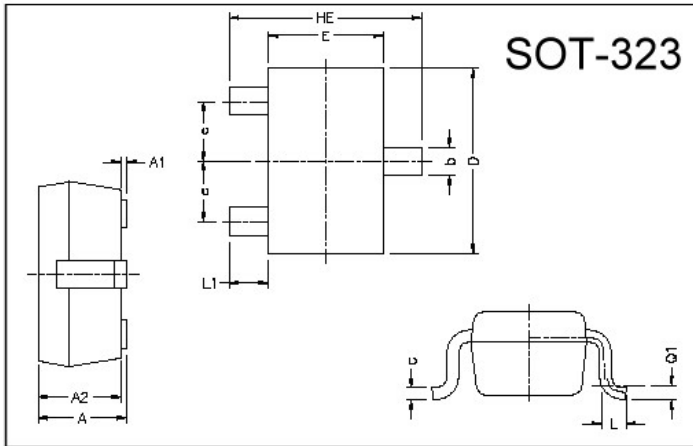
Description

The GSMBT4075 is designed for general purpose switching and amplifier applications.

Features

- Excellent hFE Linearity : hFE (0.1mA)/ hFE (2mA)=0.95 (Typ.)
- High hFE : hFE = 70~700
- Complementary to GSMBT2014

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 Ta = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	°C
Storage Temperature	Tstg	-55~+150	°C
Collector to Base Voltage	Vcbo	60	V
Collector to Emitter Voltage	Vceo	50	V
Emitter to Base Voltage	Vebo	5	V
Collector Current	Ic	150	mA
Base Current	Ib	30	mA
Total Power Dissipation	Pd	225	mW

Electrical Characteristics (Ta = 25°C)

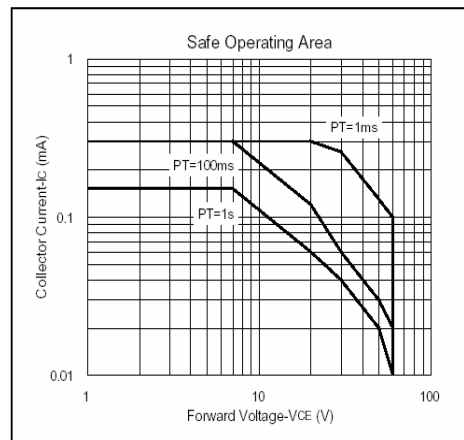
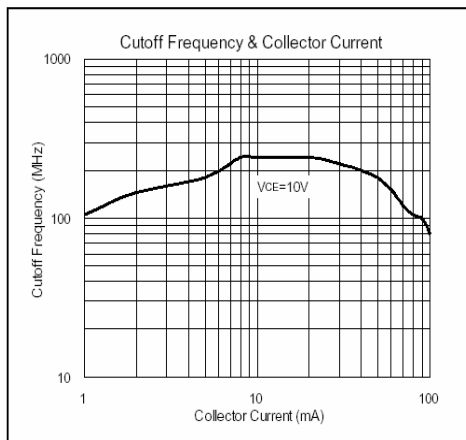
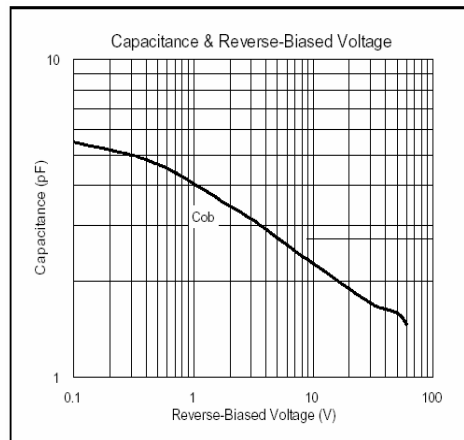
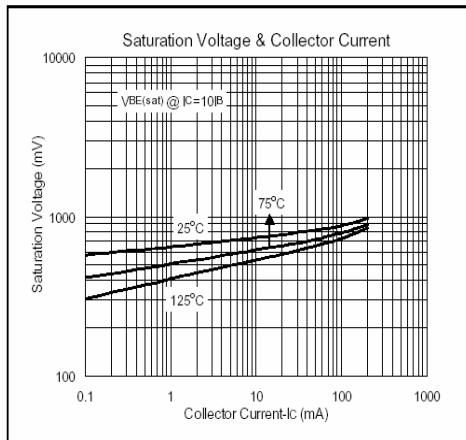
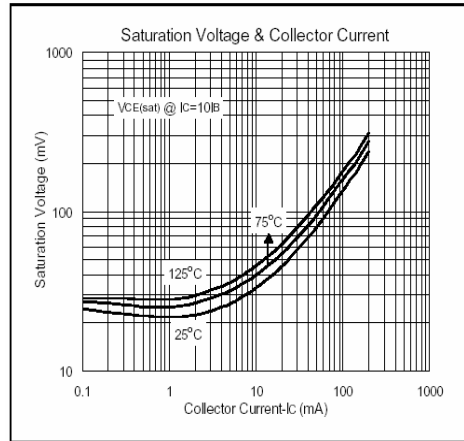
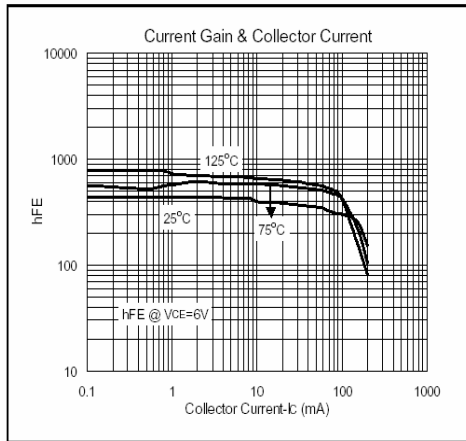
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVcbo	60	-	-	V	Ic=100uA, IE=0
BVceo	50	-	-	V	Ic=1mA, Ib=0
BVebo	5	-	-	V	IE=10uA, Ic=0
Icbo	-	-	100	nA	Vcb=60V, IE=0
IEBO	-	-	100	nA	VEB=5V, Ic=0
*VCE(sat)	-	-	250	mV	Ic=100mA, Ib=10mA
*VBE(sat)	-	-	1	V	Ic=100mA, Ib=10mA
*hFE1	70	-	700		VCE=6V, Ic=2mA
*hFE2	25	-	-		VCE=6V, Ic=150mA
fT	80	-	-	MHz	VCE=10V, Ic=1mA, f=100MHz
Cob	-	-	3.5	pF	Vcb=10V, IE=0, f=1MHz

* Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

Classification Of hFE1

Rank	LO	LY	LG	LB
Range	70 - 140	120 - 240	200 - 400	350 - 700

Characteristics Curve



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