GSMBT4075 NPN EPITAXIAL PLANAR TRANSISTOR

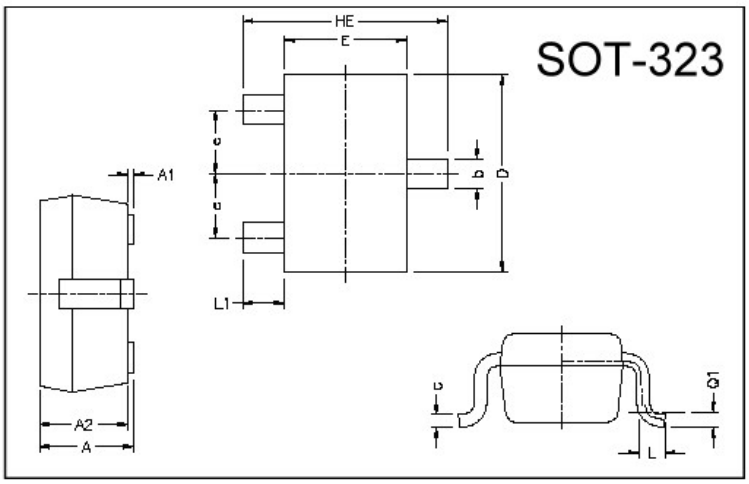
Description

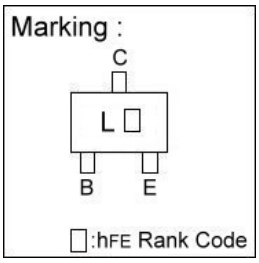
The GSMBT4075 is designed for general purpose switching and amplifier applications.

Features

- Excellent h_{FE} Linearity : h_{FE} (0.1mA)/ h_{FE} (2mA)=0.95 (Typ.)
- High h_{FE} : h_{FE} = 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℃

Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	℃
Storage Temperature	Tstg	-55~+150	℃
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	30	mA
Total Power Dissipation	P_D	225	mW

Electrical Characteristics (Ta = 25℃)

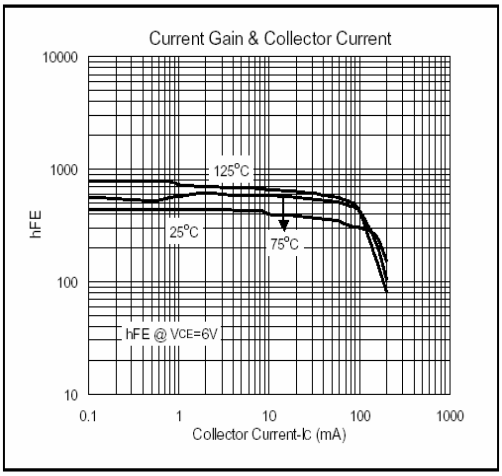
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	60	-	-	V	I_C=100uA , I_E=0
BV_{CEO}	50	-	-	V	I_C=1mA, I_B=0
BV_{EBO}	5	-	-	V	I_E=10uA ,I_C=0
I_{CBO}	-	-	100	nA	V_{CB}=60V, I_E=0
I_{EBO}	-	-	100	nA	V_{EB}=5V, I_C=0
*$V_{CE(sat)}$	-	-	250	mV	I_C=100mA, I_B=10mA
*$V_{BE(sat)}$	-	-	1	V	I_C=100mA, I_B=10mA
*h_{FE1}	70	-	700		V_{CE}=6V, I_C=2mA
*h_{FE2}	25	-	-		V_{CE}=6V, I_C=150mA
fT	80	-	-	MHz	V_{CE}=10V, I_C=1mA, f=100MHz
Cob	-	-	3.5	pF	V_{CB}=10V, I_E=0, f=1MHz

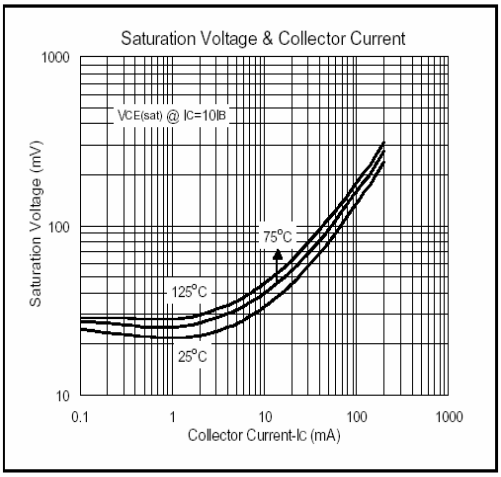
*** Pulse Test: Pulse Width≦380μs, Duty Cycle≦2%**

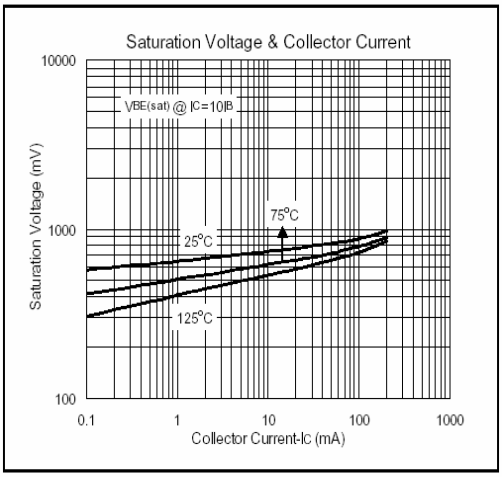
Classification Of h_{FE1}

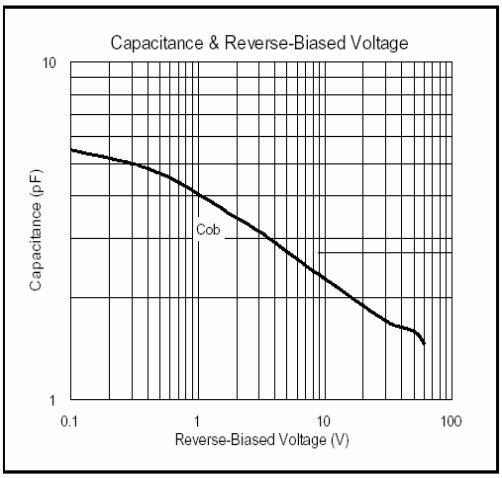
Rank	LO	LY	LG	LB
Range	70 - 140	120 - 240	200 - 400	350 - 700

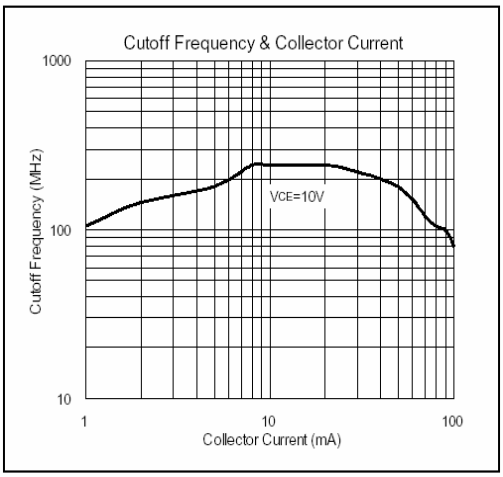
Characteristics Curve

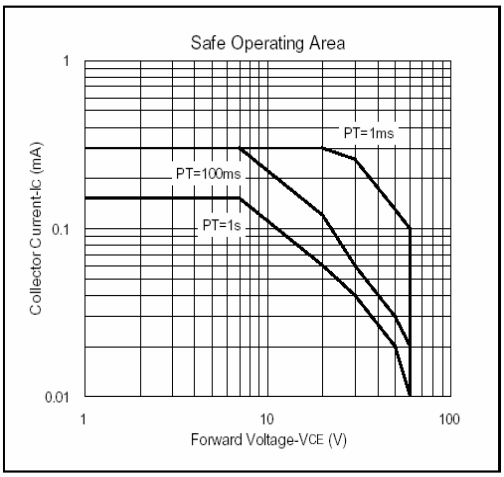












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