

GM5824

NPN SILICON EPITAXIAL PLANAR TRANSISTOR

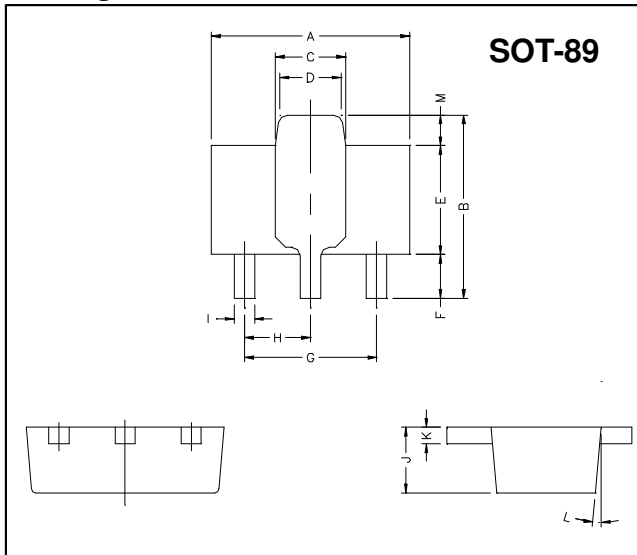
Description

The GM5824 is designed for high speed switching and low frequency amplifier applications.

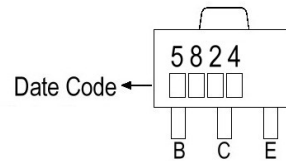
Features

- 60 Volt V_{CEO}
- 3 Amp continuous current
- Low saturation voltage

Package Dimensions



Marking :



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.4	4.6	G	3.00	REF.
B	4.05	4.25	H	1.50	REF.
C	1.50	1.70	I	0.40	0.52
D	1.30	1.50	J	1.40	1.60
E	2.40	2.60	K	0.35	0.41
F	0.89	1.20	L	5° TYP.	
			M	0.70 REF.	

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

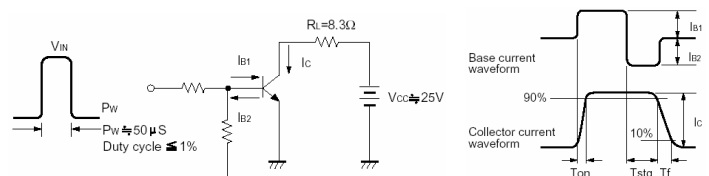
Parameter	Symbol	Ratings	Unit
Junction Temperature	T_j	+150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~+150	$^\circ\text{C}$
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	60	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_c	3	A
Collector Current (Pulse)	I_c	6	A
Total Power Dissipation	P_D	1.2	W

Electrical Characteristics ($T_a = 25^\circ\text{C}$, unless otherwise noted)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V_{CBO}	60	-	-	V	$I_c=100\mu\text{A}$, $I_E=0$
V_{CEO}	60	-	-	V	$I_c=1\text{mA}$, $I_B=0$
V_{EBO}	6	-	-	V	$I_E=100\mu\text{A}$, $I_c=0$
I_{CBO}	-	-	1.0	μA	$V_{CB}=40\text{V}$, $I_E=0$
I_{EBO}	-	-	1.0	μA	$V_{EB}=4\text{V}$, $I_c=0$
* $V_{CE(sat)}$	-	-	500	mV	$I_c=2\text{A}$, $I_B=0.2\text{A}$
* h_{FE}	120	-	390		$V_{CE}=2\text{V}$, $I_c=100\text{mA}$
* f_T	-	200	-	MHz	$V_{CE}=10\text{V}$, $I_E=-100\text{mA}$, $f=10\text{MHz}$
C_{ob}	-	20	-	pF	$V_{CB}=10\text{V}$, $I_E=0\text{mA}$, $f=1\text{MHz}$
T_{on} (Turn-on time)	-	50	-	ns	$V_{CC}=25\text{V}$, $I_c=3\text{A}$, $I_{B1}=300\text{mA}$, $I_{B2}=-300\text{mA}$
T_{stg} (Storage time)	-	150	-		
T_f (Fall time)	-	30	-		

*Non repetitive pulse

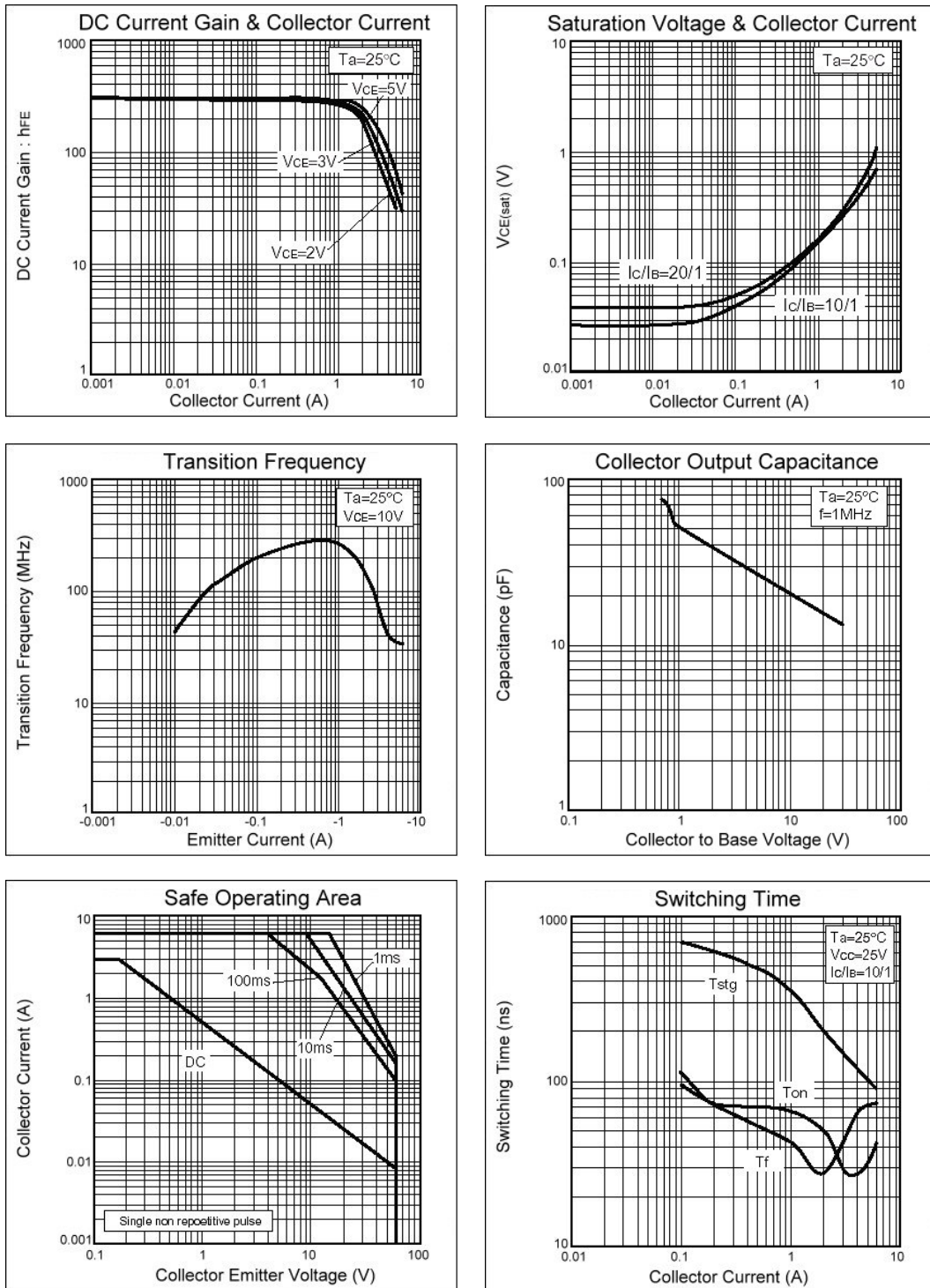
Switching characteristics measurement circuit



Classification Of h_{FE}

Rank	Q	R
Range	120 ~ 270	180 ~ 390

Characteristics Curve



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