

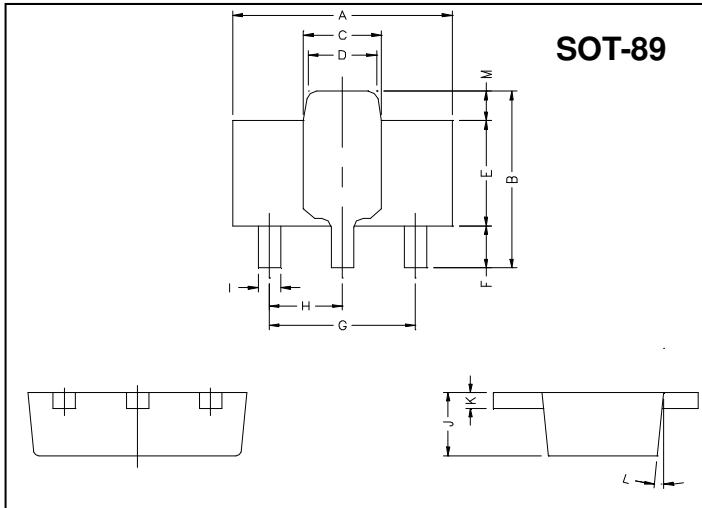
GM1213

PNP EPITAXIAL PLANAR TRANSISTOR

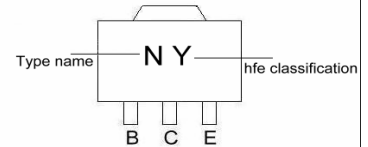
Description

The GM1213 is designed for using in power amplifier applications or power switching applications.

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 Ta=25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	°C
Storage Temperature	Tstg	-55 ~ +150	°C
Collector to Base Voltage	VCBO	-50	V
Collector to Emitter Voltage	VCEO	-50	V
Emitter to Base Voltage	VEBO	-5	V
Collector Current at	IC	-2	A
Base current	IB	-0.4	A
Collector Power Dissipation	PC(Note 1)	500	mW
		1000	mW

Characteristics at Ta = 25°C

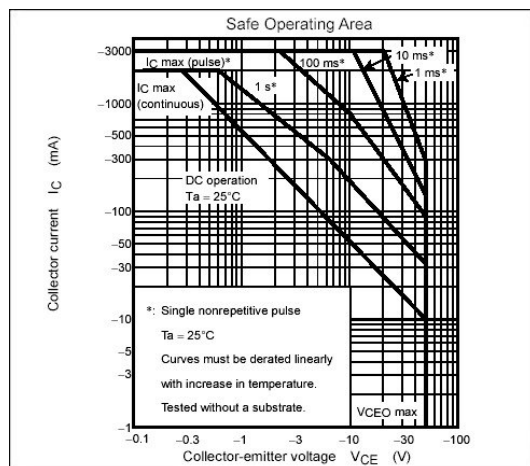
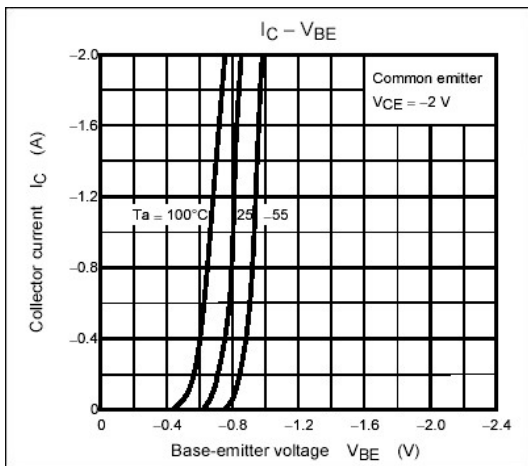
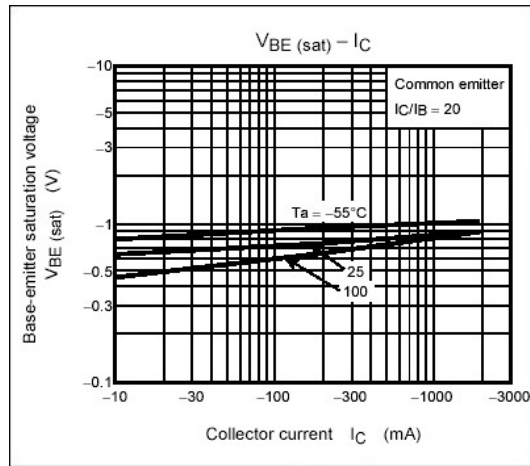
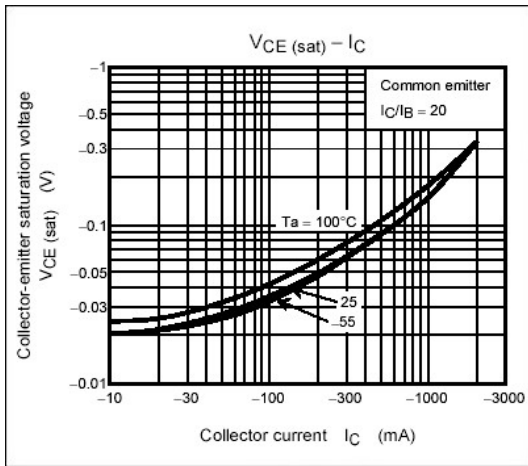
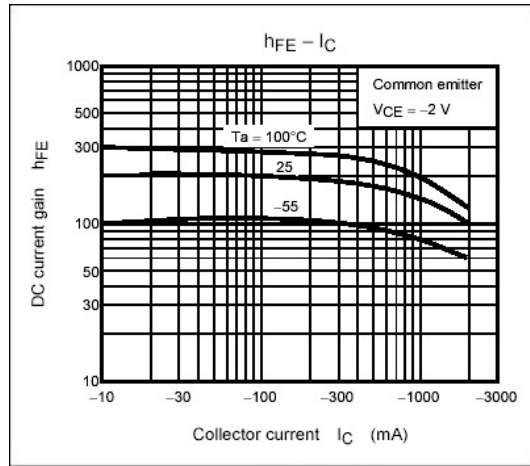
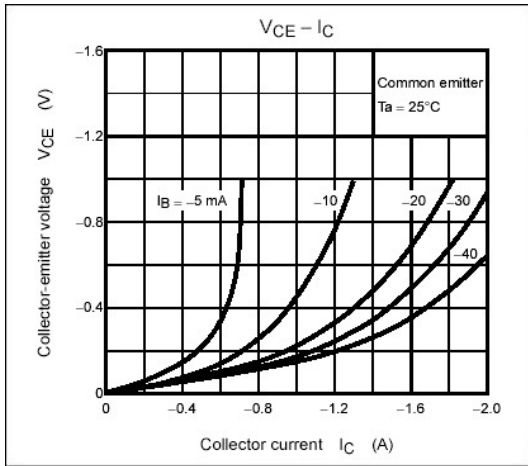
Note 1: Mounted on ceramic substrate (250mm²x0.8t)

Characteristics	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector cut-off current	ICBO	-	-	-0.1	uA	VCB=-50V, IE=0
Emitter cut-off current	IEBO	-	-	-0.1	uA	VEB=-5V, IC=0
Collector-emitter breakdown voltage	V(BR)CEO	-50	-	-	V	IC=-10mA, IE=0
DC current gain	hFE1	70	-	240	-	VCE=-2V, IC=-0.5A
	hFE2	20	-	-	-	VCE=-2V, IC=-2.0A
Collector-emitter saturation voltage	VCE(sat)	-	-	-0.5	V	IC=-1A, IB=-0.05A
Base-emitter saturation voltage	VBE(sat)	-	-	-1.2	V	IC=-1A, IB=-0.05A
Transition frequency	fT	-	120	-	MHz	VCE=-2V, IC=-0.5A
Collector output capacitance	Cob	-	40	-	Pf	VCB=-10V, IE=0, f=1MHz
Switching time	Turn-on time	ton	-	0.1	µs	<p>-IB1 = IB2 = 0.05 A, DUTY CYCLE ≤ 1%</p>
	Storage time	tstg	-	1.0	µs	
	Fall time	tf	-	0.1	µs	

Classification Of hFE1

Rank	O	Y
Range	70-140	120-240

Characteristics Curve



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