Elektronische Bauelemente

BCP1213

PNP

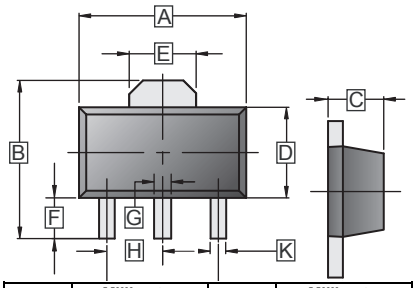
Epitaxial Planar Transistor

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

The BCP1213 is designed for using in power amplifier applications or power switching applications.

SOT-89



REF.	Millimeter Min.	Millimeter Max.	REF.	Millimeter Min.	Millimeter Max.
A	4.40	4.60	G	-	-
B	4.05	4.25	H	1.50	REF.
C	1.40	1.60	J	3.00	REF.
D	2.40	2.60	K	0.40	0.52
E	1.50	1.70	L	0.35	0.41
F	0.89	1.20			

MARKING

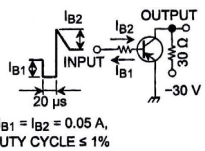
Type Name → **NY** ← hFE Ranking

ABSOLUTE MAXIMUM RATINGS at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-2	A
Base Current	I_B	-0.4	A
Collector Power Dissipation	P_C (Note 1)	500	mW
		1000	mW
Junction & Storage Temperature	T_J, T_{STG}	150, -55~150	°C

Note 1: Mounted on ceramic substrate (250mm^{2}x0.8t)

ELECTRICAL CHARACTERISTICS at Ta = 25°C

Parameter		Symbol	Min.	Max.	Unit	Test Conditions
Collector-emitter breakdown voltage		$V_{(BR)CEO}$	-50	-	V	I_C = -10 mA, I_B = 0
Collector cut-off current		I_{CBO}	-	-100	nA	V_{CB} = -50 V, I_E = 0
Emitter cut-off current		I_{EBO}	-	-100	nA	V_{EB} = -5 V, I_C = 0
DC current gain.		$h_{FE(1)}$	70	240		V_{CE} = -2 V, I_C = -0.5 A
		$h_{FE(2)}$	20	-		V_{CE} = -2 V, I_C = -2.0 A
Base-emitter voltage		$V_{BE(sat)}$	-	-1.2	V	I_C = -1 A, I_B = -0.05 A
Collector-emitter saturation voltage		$V_{CE(sat)}$	-	-0.5	V	I_C = -1 A, I_B = -0.05 A
Transition frequency		f_T	120 TYP.		MHz	V_{CE} = -2 V, I_C = -0.5 A
Collector output capacitance		C_{OB}	40		pF	V_{CB} = -10 V, I_E = 0, f = 1 MHz
Switching time	Turn-on time	t_{ON}	0.1		µs	
	Storage time	t_{STG}	1.0		µs	
	Fall time	t_F	0.1		µs	

$-I_{B1} = I_{B2}$ = 0.05 A,
DUTY CYCLE ≤ 1%

CLASSIFICATION OF hFE

Rank	O	Y
hFE	70 – 140	120 - 240

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CHARACTERISTIC CURVES