

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

DESCRIPTION

The BCP8050 is suited for the output stage of audio, voltage regulator, and relay driver.

MARKING

Y1

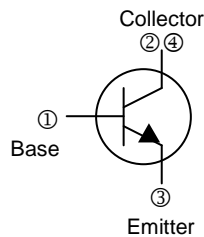
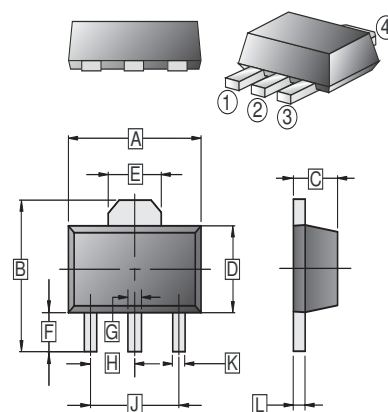
CLASSIFICATION OF h_{FE}

Product Rank	BCP8050-C	BCP8050-D
Range	120~200	160~300

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-89	1K	7' inch

SOT-89



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.60	G	0.40	0.58
B	3.94	4.25	H	1.50	TYP
C	1.40	1.60	J	3.00	TYP
D	2.30	2.60	K	0.32	0.52
E	1.50	1.70	L	0.35	0.44
F	0.89	1.2			

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current -Continuous	I_C	1.5	A
Total Power Dissipation	P_D	0.5	W
Junction & Storage temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	40	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector-emitter breakdown	$V_{(BR)CEO}$	25	-	-	V	$I_C=0.1\text{mA}, I_B=0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E=100\mu\text{A}, I_C=0$
Collector cut-off current	I_{CBO}	-	-	0.1	μA	$V_{CB}=40\text{V}, I_E=0$
Emitter cut-off current	I_{CEO}	-	-	0.1	μA	$V_{CE}=20\text{V}, I_E=0$
Emitter cut-off current	I_{EBO}	-	-	0.1	μA	$V_{EB}=5\text{V}, I_C=0$
DC current gain	h_{FE}	120	-	300		$V_{CE}=1\text{V}, I_C=0.1\text{A}$
		40	-	-		$V_{CE}=1\text{V}, I_C=0.8\text{A}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	0.5	V	$I_C=800\text{mA}, I_B=80\text{mA}$
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	1.2	V	$I_C=800\text{mA}, I_B=80\text{mA}$
Base-emitter voltage	V_{BE}	-	-	1	V	$V_{CE}=1\text{V}, I_C=10\text{mA}$
Base-emitter positive forward voltage	V_{BEF}	-	-	1.55	V	$I_B=1\text{A}$
Transition frequency	f_T	-	100	-	MHz	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=30\text{MHz}$
Output Capacitance	C_{OB}	-	15	-	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$

CHARACTERISTIC CURVES

