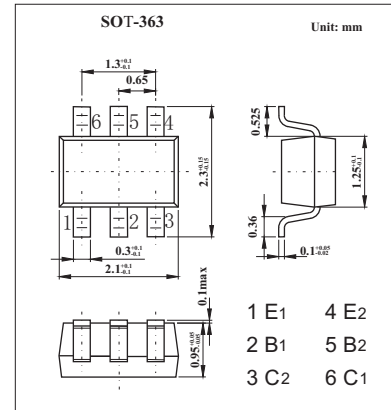
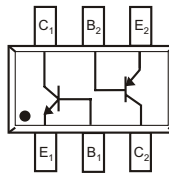


# BC847PN

### ■ Features

- Two internal isolated NPN/PNP Transistors in one package
- For Switching and AF Amplifier Applications
- Ultra-Small Surface Mount Package



### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	50	V
Collector-Emitter Voltage	V <sub>CE0</sub>	45	V
Emitter-Base Voltage	V <sub>EB0</sub>	6	V
Collector Current -Continuous	I <sub>C</sub>	0.1	A
Collector Power Dissipation	P <sub>C</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 10 μA , I <sub>E</sub> = 0	50			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 10mA , I <sub>B</sub> = 0	45			V
Emitter-base Breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = 10 μA , I <sub>C</sub> = 0	6			V
Collector-base cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = 30 V , I <sub>E</sub> = 0			15	nA
Emitter-base cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = 5 V , I <sub>C</sub> = 0			15	nA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 5 V , I <sub>C</sub> = 2 mA	200		450	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 100 mA , I <sub>B</sub> = 5mA			0.6	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 100 mA , I <sub>B</sub> = 5mA		0.9		V
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V,f=1MHz			6	pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 5 V , I <sub>C</sub> = 10 mA , f = 100 MHz	100			MHz
Noise figure	NF	V <sub>CE</sub> =5V,I <sub>C</sub> =0.2mA,f=1kHz, R <sub>g</sub> =2KΩ,Δf=200Hz			10	dB

### ■ Marking

Marking	7P
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