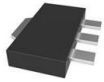


BC869-16-TP Datasheet

www.digi-electronics.com



DiGi Electronics Part Number	BC869-16-TP-DG
Manufacturer	Micro Commercial Co
Manufacturer Product Number	BC869-16-TP
Description	Interface
Detailed Description	Bipolar (BJT) Transistor PNP 20 V 1 A 40MHz 500 mW Surface Mount SOT-89

<https://www.DiGi-Electronics.com>



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

BC869-16-TP

Series:

-

Transistor Type:

PNP

Voltage - Collector Emitter Breakdown (Max):

20 V

Current - Collector Cutoff (Max):

100nA (ICBO)

Power - Max:

500 mW

Operating Temperature:

-55°C ~ 150°C (TJ)

Package / Case:

TO-243AA

Base Product Number:

BC869

Manufacturer:

Micro Commercial Co

Product Status:

Active

Current - Collector (Ic) (Max):

1 A

Vce Saturation (Max) @ Ib, Ic:

500mV @ 100mA, 1A

DC Current Gain (hFE) (Min) @ Ic, Vce:

100 @ 500mA, 1V

Frequency - Transition:

40MHz

Mounting Type:

Surface Mount

Supplier Device Package:

SOT-89

Environmental & Export classification

REACH Status:

REACH Unaffected

HTSUS:

8541.21.0095

ECCN:

EAR99

Features

- High Current
- Low Voltage
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

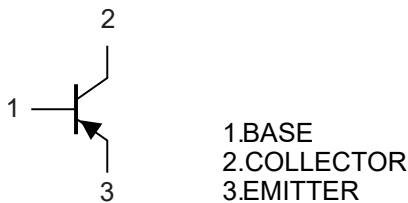
Maximum Ratings @ 25°C Unless Otherwise Specified

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 250°C/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-32	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EBO}	-5	V
Continuous Collector Current	I_C	-1	A
Peak Base Current	I_{BM}	-200	mA
Power Dissipation	P_D	0.5	W

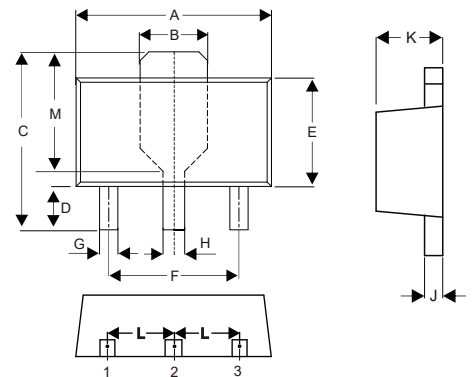
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



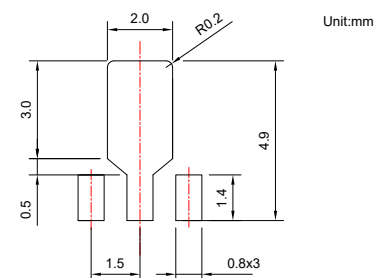
PNP Medium Power Transistors

SOT-89



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.061		1.55		TYP.
C	0.154	0.171	3.91	4.35	
D	0.031	0.047	0.80	1.20	
E	0.089	0.104	2.25	2.65	
F	0.118		3.00		TYP.
G	0.013	0.020	0.33	0.52	
H	0.015	0.021	0.38	0.53	
J	0.014	0.017	0.35	0.44	
K	0.055	0.063	1.40	1.60	
L	0.059		1.50		TYP.
M	0.108		2.75		TYP.

Suggested Solder Pad Layout



Electrical Characteristics @ $T_A=25^\circ\text{C}$ Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector Cutoff Current	I_{CBO}			-100	nA	$V_{CB}=-25\text{V}, I_E=0$
				-10	μA	$V_{CB}=-25\text{V}, I_E=0, T_J=150^\circ\text{C}$
Emitter Cutoff Current	I_{EBO}			-100	nA	$V_{EB}=-5\text{V}, I_C=0$
DC Current Gain	$h_{FE(1)}$	50				$V_{CE}=-1\text{V}, I_C=-5\text{mA}$
	$h_{FE(2)}$	100		375		$V_{CE}=-1\text{V}, I_C=-500\text{mA}$
	$h_{FE(3)}$	60				$V_{CE}=-1\text{V}, I_C=-1\text{A}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5	V	$I_C=-1\text{A}, I_B=-0.1\text{A}$
Transition Frequency	f_T	40			MHZ	$V_{CE}=-5\text{V}, I_C=-10\text{mA}, f=100\text{MHz}$

Classification of $h_{FE(2)}$

Rank	BC869	BC869-16	BC869-25
Range	100-375	100-250	160-375
Marking	CEC	CGC	CHC

Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 1Kpcs/Reel

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