BCV47

SURFACE MOUNT SILICON NPN DARLINGTON TRANSISTOR



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR BCV47 is a silicon NPN Darlington transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for applications requiring extremely high gain.

MARKING CODE: FG



SOT-23 CASE

MAXIMUM RATINGS: (T _A =25°C)	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	10	V
Continuous Collector Current	IC	500	mA
Peak Collector Current	I _{CM}	800	mA
Continuous Base Current	Ι _Β	100	mA
Power Dissipation	P_{D}	350	mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance	$\Theta_{\sf JA}$	357	°C/W

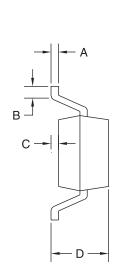
		JA	-		
ELECTRICA	L CHARACTERISTICS: (T _A =25°C un	less otherwise	noted)		
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CBO}	V _{CB} =30V			100	nA
I _{EBO}	V _{BE} =10V			100	nA
BVCEO	I _C =10mA	60			V
BV_{CBO}	I _C =10μA	80			V
BV_{EBO}	I _E =100nA	10			V
VCE(SAT)	I _C =100mA, I _B =0.1mA			1.0	V
V _{BE(SAT)}	I _C =100mA, I _B =0.1mA			1.5	V
h _{FE}	V_{CE} =5.0V, I_{C} =1.0mA	2,000			
hFE	V_{CE} =5.0V, I_{C} =10mA	4,000			
h_{FE}	V_{CE} =5.0V, I_{C} =100mA	10,000			
f_{T}	V _{CE} =5.0V, I _C =30mA, f=100MHz		220		MHz

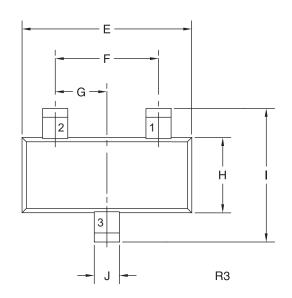
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SOT-23 CASE - MECHANICAL OUTLINE





LEAD CODE:

- 1) Base 2) Emitter
- 3) Collector

MARKING CODE: FG

DIMENSIONS								
DIMENSIONS								
	INCHES		MILLIMETERS					
SYMBOL	MIN	MAX	MIN	MAX				
Α	0.003	0.007	0.08	0.18				
В	0.006	-	0.15	-				
С	-	0.005	-	0.13				
D	0.035	0.043	0.89	1.09				
Ε	0.110	0.120	2.80	3.05				
F	0.075		1.90					
G	0.037		0.95					
Н	0.047	0.055	1.19	1.40				
ĺ	0.083	0.098	2.10	2.49				
J	0.014	0.020	0.35	0.50				

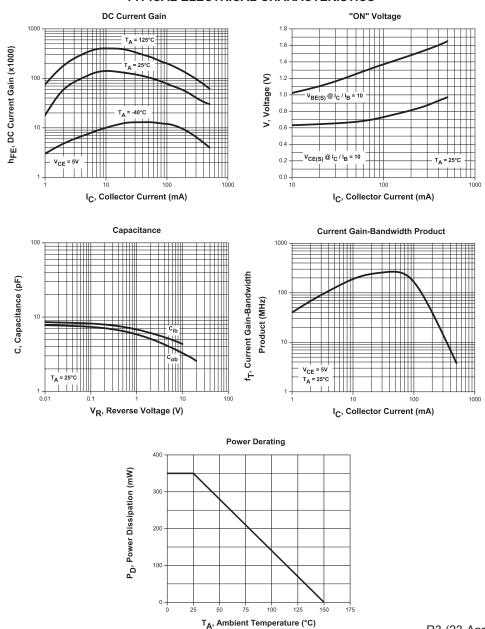
SOT-23 (REV: R3)

BCV47





TYPICAL ELECTRICAL CHARACTERISTICS



OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- · Inventory bonding
- · Consolidated shipping options

- · Custom bar coding for shipments
- · Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free guick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- · Custom electrical curves
- · Environmental regulation compliance
- · Customer specific screening
- · Up-screening capabilities

- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

- 1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
- 2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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