

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

| MAXIMUM RATINGS: (T _A =25°C) | | SYMBOL | | | UNITS |
|--|---|-----------------------------------|----------------------|-------------------|-------------|
| Collector-Base Voltage | | V _{CBO} | 80 | 0 | V |
| Collector-Emitter Voltage | | V _{CEO} | 60 | 0 | V |
| Emitter-Base Voltage | | V _{EBO} | 10 | 0 | V |
| Continuous Collector Current | | ۱ _C | 50 | 00 | mA |
| Peak Collector Current | | ICM | 80 | 0 | mA |
| Continuous Base Current | | ۱ _B | 10 | 0 | mA |
| Power Dissipation | | PD | 35 | 50 | mW |
| Operating and Storage Junction Temperature | | T _J , T _{stg} | -65 to +150 | | °C |
| Thermal Resistance | | ΘJĄ | 35 | 57 | °C/W |
| ELECTRICAI SYMBOL I _{CBO} | L CHARACTERISTICS: (T _A =25°C u TEST CONDITIONS V _{CB} =30V | Inless otherwise r MIN | noted) TYP | MAX 100 | UNITS nA |
| I _{EBO} | V _{BE} =10V | | | 100 | nA |
| BVCEO | I _C =10mA | 60 | | | V |
| BVCBO | Ι _C =10μΑ | 80 | | | V |
| BVEBO | I _E =100nA | 10 | | | V |
| V _{CE} (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 | | | |
| h _{FE} | V _{CE} =5.0V, I _C =10mA | 4,000 | | | |
| h _{FE} | V _{CE} =5.0V, I _C =100mA | 10,000 | | | |
| fT | V_{CE} =5.0V, I _C =30mA, f=100MHz | | 220 | | MHz |



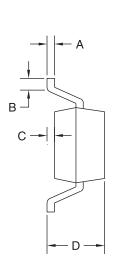
R3 (23-April 2015)

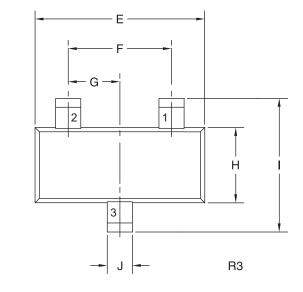




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SOT-23 CASE - MECHANICAL OUTLINE





LEAD CODE:

- 1) Base 2) Emitter
- 2) Emitter
 3) Collector
- s) Collector

MARKING CODE: FG

| DIMENSIONS | | | | | | | |
|------------------|--------|-------|-------------|------|--|--|--|
| | INCHES | | MILLIMETERS | | | | |
| SYMBOL | MIN | MAX | MIN | MAX | | | |
| А | 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 | | | |
| E | 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 | | | |
| | 0.083 | 0.098 | 2.10 | 2.49 | | | |
| J | 0.014 | 0.020 | 0.35 | 0.50 | | | |
| SOT-23 (REV: R3) | | | | | | | |

SOT-23 (REV: R3)

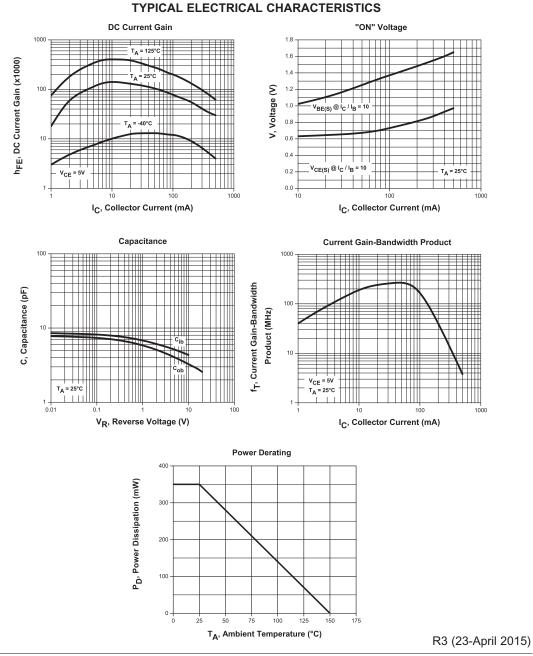
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BCV47

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- Custom bar coding for shipments
- Custom product packing

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- 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

CONTACT US

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