

# Dual General Purpose Transistors

## NPN/PNP Duals (Complementary)

### BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

These transistors are designed for general purpose amplifier applications. They are housed in the SOT-363/SC-88 which is designed for low power surface mount applications.

#### Features

- S Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable
- These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant

#### MAXIMUM RATINGS – NPN

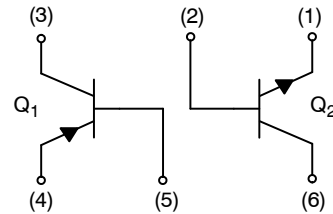
| Rating   | Symbol    | Value          | Unit |
|--|-----------|----------------|------|
| Collector-Emitter Voltage<br>BC846<br>BC847<br>BC848 | $V_{CEO}$ | 65<br>45<br>30 | V    |
| Collector-Base Voltage<br>BC846<br>BC847<br>BC848    | $V_{CBO}$ | 80<br>50<br>30 | V    |
| Emitter-Base Voltage                                 | $V_{EBO}$ | 6.0            | V    |
| Collector Current – Continuous                       | $I_C$     | 100            | mAdc |
| Collector Current – Peak                             | $I_{CM}$  | 200            | mAdc |

#### MAXIMUM RATINGS – PNP

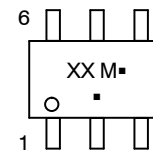
| Rating   | Symbol    | Value             | Unit |
|--|-----------|-------------------|------|
| Collector-Emitter Voltage<br>BC846<br>BC847<br>BC848 | $V_{CEO}$ | -65<br>-45<br>-30 | V    |
| Collector-Base Voltage<br>BC846<br>BC847<br>BC848    | $V_{CBO}$ | -80<br>-50<br>-30 | V    |
| Emitter-Base Voltage                                 | $V_{EBO}$ | -6.0              | V    |
| Collector Current – Continuous                       | $I_C$     | -100              | mAdc |
| Collector Current – Peak                             | $I_{CM}$  | -200              | mAdc |

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

  
SOT-363  
CASE 419B  
STYLE 1



#### MARKING DIAGRAM



XX = Device Code  
M = Date Code  
▪ = Pb-Free Package

(Note: Microdot may be in either location)

#### ORDERING INFORMATION

| Device                           | Mark | Package              | Shipping <sup>†</sup>   |
|----------------------------------|------|----------------------|-------------------------|
| BC846BPDW1T1G,<br>SBC846BPDW1T1G | BB   | SOT-363<br>(Pb-Free) | 3,000 /<br>Tape & Reel  |
| SBC846BPDW1T2G                   | BB   | SOT-363<br>(Pb-Free) | 3,000 /<br>Tape & Reel  |
| SBC846BPDW1T3G                   | BB   | SOT-363<br>(Pb-Free) | 10,000 /<br>Tape & Reel |
| BC847BPDW1T1G                    | BF   | SOT-363<br>(Pb-Free) | 3,000 /<br>Tape & Reel  |
| SBC847BPDW1T1G                   | BF   | SOT-363<br>(Pb-Free) | 3,000 /<br>Tape & Reel  |
| SBC847BPDW1T3G                   | BF   | SOT-363<br>(Pb-Free) | 10,000 /<br>Tape & Reel |
| BC847BPDW1T2G                    | BF   | SOT-363<br>(Pb-Free) | 3,000 /<br>Tape & Reel  |
| BC848CPDW1T1G                    | BL   | SOT-363<br>(Pb-Free) | 3,000 /<br>Tape & Reel  |

<sup>†</sup>For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

## THERMAL CHARACTERISTICS

| Characteristic  | Symbol          | Max               | Unit   |
|---|-----------------|-------------------|--|
| Total Device Dissipation Per Device<br>FR-5 Board (Note 1)<br>$T_A = 25^\circ\text{C}$<br>Derate above $25^\circ\text{C}$ | $P_D$           | 380<br>250<br>3.0 | mW<br>mW/ $^\circ\text{C}$<br>mW/ $^\circ\text{C}$ |
| Thermal Resistance, Junction-to-Ambient   | $R_{\theta JA}$ | 328               | $^\circ\text{C/W}$                                 |
| Junction and Storage Temperature  | $T_J, T_{stg}$  | -55 to +150       | $^\circ\text{C}$                                   |

1. FR-5 = 1.0 x 0.75 x 0.062 in.

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

| Characteristic | Symbol | Min | Typ | Max | Unit |
|----------------|--------|-----|-----|-----|------|
|----------------|--------|-----|-----|-----|------|

### OFF CHARACTERISTICS

|   |               |                   |             |             |                     |
|---|---------------|-------------------|-------------|-------------|---------------------|
| Collector - Emitter Breakdown Voltage<br>( $I_C = 10\text{ mA}$ )<br>BC846<br>BC847<br>BC848                  | $V_{(BR)CEO}$ | 65<br>45<br>30    | -<br>-<br>- | -<br>-<br>- | V                   |
| Collector - Emitter Breakdown Voltage<br>( $I_C = 10\ \mu\text{A}, V_{EB} = 0$ )<br>BC846<br>BC847B<br>BC848  | $V_{(BR)CES}$ | 80<br>50<br>30    | -<br>-<br>- | -<br>-<br>- | V                   |
| Collector - Base Breakdown Voltage<br>( $I_C = 10\ \mu\text{A}$ )<br>BC846<br>BC847<br>BC848                  | $V_{(BR)CBO}$ | 80<br>50<br>30    | -<br>-<br>- | -<br>-<br>- | V                   |
| Emitter - Base Breakdown Voltage<br>( $I_E = 1.0\ \mu\text{A}$ )<br>BC846<br>BC847<br>BC848                   | $V_{(BR)EBO}$ | 6.0<br>6.0<br>6.0 | -<br>-<br>- | -<br>-<br>- | V                   |
| Collector Cutoff Current<br>( $V_{CB} = 30\text{ V}$ )<br>( $V_{CB} = 30\text{ V}, T_A = 150^\circ\text{C}$ ) | $I_{CBO}$     | -<br>-            | -<br>-      | 15<br>5.0   | nA<br>$\mu\text{A}$ |

### ON CHARACTERISTICS

|  |               |                      |                          |                         |    |
|--|---------------|----------------------|--------------------------|-------------------------|----|
| DC Current Gain<br>( $I_C = 10\ \mu\text{A}, V_{CE} = 5.0\text{ V}$ )<br>BC846B, BC847B<br>BC848C<br>( $I_C = 2.0\text{ mA}, V_{CE} = 5.0\text{ V}$ )<br>BC846B, BC847B<br>BC848C  | $h_{FE}$      | -<br>-<br>200<br>420 | 150<br>270<br>290<br>520 | -<br>-<br>475<br>800    | -  |
| Collector - Emitter Saturation Voltage<br>( $I_C = 10\text{ mA}, I_B = 0.5\text{ mA}$ ) All devices except SBC847BPDW1T1G<br>SBC847BPDW1T1G only<br>( $I_C = 100\text{ mA}, I_B = 5.0\text{ mA}$ ) All devices<br>( $I_C = 2\text{ mA}, I_B = 0.5\text{ mA}$ ) SBC847BPDW1T1G only | $V_{CE(sat)}$ | -<br>-<br>-<br>-     | -<br>-<br>-<br>0.024     | 0.25<br>0.1<br>0.6<br>- | V  |
| Base - Emitter Saturation Voltage<br>( $I_C = 10\text{ mA}, I_B = 0.5\text{ mA}$ )<br>( $I_C = 100\text{ mA}, I_B = 5.0\text{ mA}$ )   | $V_{BE(sat)}$ | -<br>-               | 0.7<br>0.9               | -<br>-                  | V  |
| Base - Emitter Voltage<br>( $I_C = 2.0\text{ mA}, V_{CE} = 5.0\text{ V}$ )<br>( $I_C = 10\text{ mA}, V_{CE} = 5.0\text{ V}$ )  | $V_{BE(on)}$  | 580<br>-             | 660<br>-                 | 700<br>770              | mV |

### SMALL-SIGNAL CHARACTERISTICS

|  |           |     |   |     |     |
|--|-----------|-----|---|-----|-----|
| Current - Gain - Bandwidth Product<br>( $I_C = 10\text{ mA}, V_{CE} = 5.0\text{ Vdc}, f = 100\text{ MHz}$ )                          | $f_T$     | 100 | - | -   | MHz |
| Output Capacitance ( $V_{CB} = 10\text{ V}, f = 1.0\text{ MHz}$ )  | $C_{obo}$ | -   | - | 4.5 | pF  |
| Noise Figure<br>( $I_C = 0.2\text{ mA}, V_{CE} = 5.0\text{ Vdc}, R_S = 2.0\text{ k}\Omega, f = 1.0\text{ kHz}, BW = 200\text{ Hz}$ ) | NF        | -   | - | 10  | dB  |

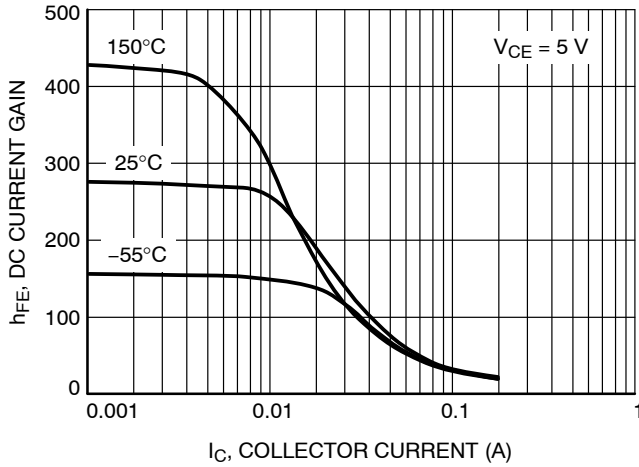
## BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

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

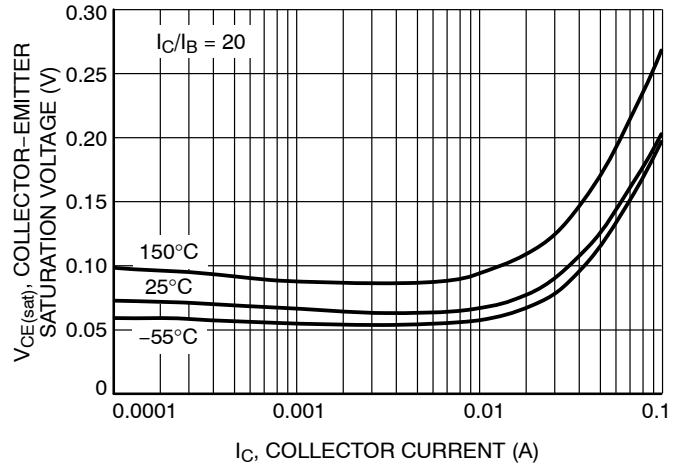
| Characteristic  | Symbol        | Min                  | Typ                      | Max                        | Unit                |
|---|---------------|----------------------|--------------------------|----------------------------|---------------------|
| <b>OFF CHARACTERISTICS</b>  |               |                      |                          |                            |                     |
| Collector – Emitter Breakdown Voltage<br>( $I_C = -10\text{ mA}$ )<br>BC846<br>BC847<br>BC848   | $V_{(BR)CEO}$ | -65<br>-45<br>-30    | -                        | -                          | V                   |
| Collector – Emitter Breakdown Voltage<br>( $I_C = -10\ \mu\text{A}$ , $V_{EB} = 0$ )<br>BC846<br>BC847<br>BC848   | $V_{(BR)CES}$ | -80<br>-50<br>-30    | -                        | -                          | V                   |
| Collector – Base Breakdown Voltage<br>( $I_C = -10\ \mu\text{A}$ )<br>BC846<br>BC847<br>BC848   | $V_{(BR)CBO}$ | -80<br>-50<br>-30    | -                        | -                          | V                   |
| Emitter – Base Breakdown Voltage<br>( $I_E = -1.0\ \mu\text{A}$ )<br>BC846<br>BC847<br>BC848  | $V_{(BR)EBO}$ | -6.0<br>-6.0<br>-6.0 | -                        | -                          | V                   |
| Collector Cutoff Current<br>( $V_{CB} = -30\text{ V}$ )<br>( $V_{CB} = -30\text{ V}$ , $T_A = 150^\circ\text{C}$ )  | $I_{CBO}$     | -<br>-               | -<br>-                   | -15<br>-4.0                | nA<br>$\mu\text{A}$ |
| <b>ON CHARACTERISTICS</b>   |               |                      |                          |                            |                     |
| DC Current Gain<br>( $I_C = -10\ \mu\text{A}$ , $V_{CE} = -5.0\text{ V}$ )<br>BC846B, BC847B<br>BC848C<br>( $I_C = -2.0\text{ mA}$ , $V_{CE} = -5.0\text{ V}$ )<br>BC846B, BC847B<br>BC848C   | $h_{FE}$      | -<br>-<br>200<br>420 | 150<br>270<br>290<br>520 | -<br>-<br>475<br>800       | -                   |
| Collector – Emitter Saturation Voltage<br>( $I_C = -10\text{ mA}$ , $I_B = -0.5\text{ mA}$ ) All devices except SBC847BPDW1T1G<br>SBC847BPDW1T1G only<br>( $I_C = -100\text{ mA}$ , $I_B = -5.0\text{ mA}$ ) All devices<br>( $I_C = -2\text{ mA}$ , $I_B = -0.5\text{ mA}$ ) SBC847BPDW1T1G only | $V_{CE(sat)}$ | -<br>-<br>-<br>-     | -<br>-<br>-<br>-0.024    | -0.3<br>-0.1<br>-0.65<br>- | V                   |
| Base – Emitter Saturation Voltage<br>( $I_C = -10\text{ mA}$ , $I_B = -0.5\text{ mA}$ )<br>( $I_C = -100\text{ mA}$ , $I_B = -5.0\text{ mA}$ )  | $V_{BE(sat)}$ | -<br>-               | -0.7<br>-0.9             | -<br>-                     | V                   |
| Base – Emitter On Voltage<br>( $I_C = -2.0\text{ mA}$ , $V_{CE} = -5.0\text{ V}$ )<br>( $I_C = -10\text{ mA}$ , $V_{CE} = -5.0\text{ V}$ )  | $V_{BE(on)}$  | -0.6<br>-            | -<br>-                   | -0.75<br>-0.82             | V                   |
| <b>SMALL – SIGNAL CHARACTERISTICS</b>   |               |                      |                          |                            |                     |
| Current – Gain – Bandwidth Product<br>( $I_C = -10\text{ mA}$ , $V_{CE} = -5.0\text{ Vdc}$ , $f = 100\text{ MHz}$ )   | $f_T$         | 100                  | -                        | -                          | MHz                 |
| Output Capacitance<br>( $V_{CB} = -10\text{ V}$ , $f = 1.0\text{ MHz}$ )  | $C_{ob}$      | -                    | -                        | 4.5                        | pF                  |
| Noise Figure<br>( $I_C = -0.2\text{ mA}$ , $V_{CE} = -5.0\text{ Vdc}$ , $R_S = 2.0\text{ k}\Omega$ , $f = 1.0\text{ kHz}$ , $BW = 200\text{ Hz}$ )  | NF            | -                    | -                        | 10                         | dB                  |

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

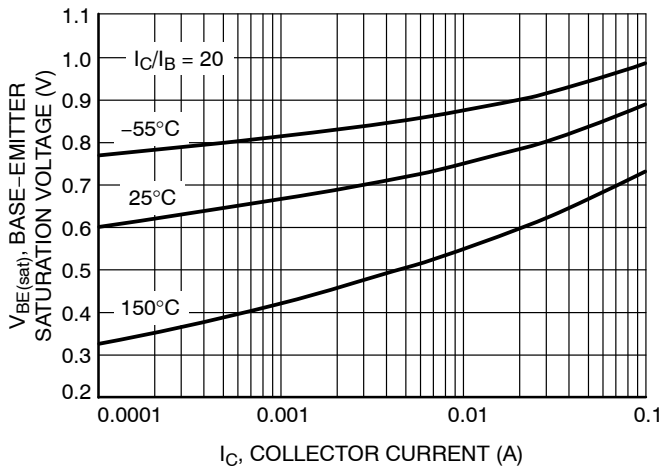
## TYPICAL NPN CHARACTERISTICS – BC846



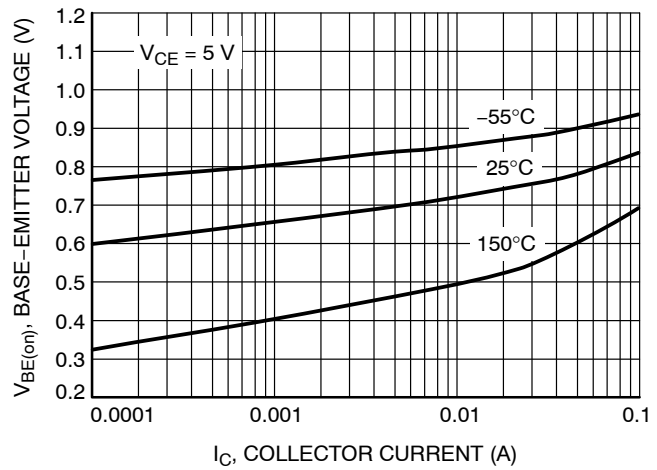
**Figure 1. DC Current Gain vs. Collector Current**



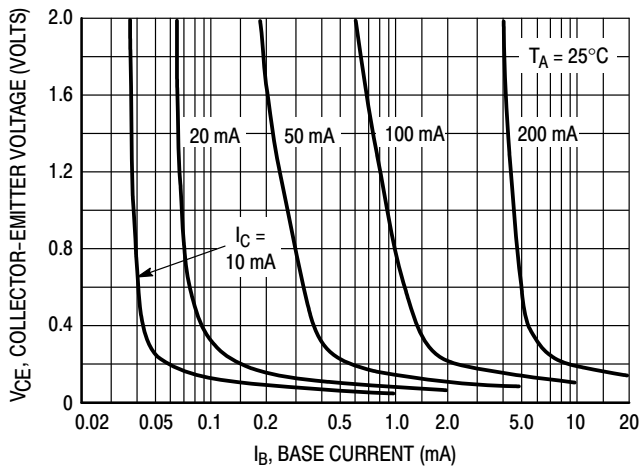
**Figure 2. Collector Emitter Saturation Voltage vs. Collector Current**



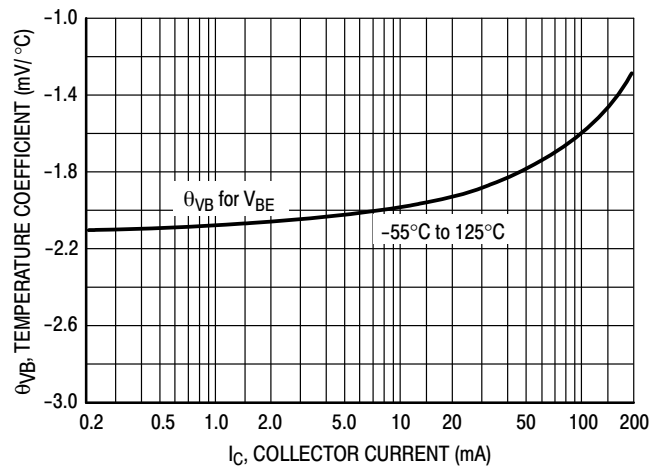
**Figure 3. Base Emitter Saturation Voltage vs. Collector Current**



**Figure 4. Base Emitter Voltage vs. Collector Current**



**Figure 5. Collector Saturation Region**



**Figure 6. Base-Emitter Temperature Coefficient**

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

## TYPICAL NPN CHARACTERISTICS – BC846

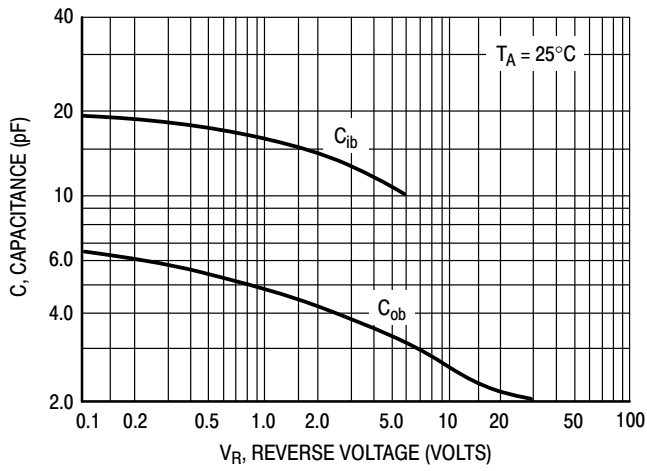


Figure 7. Capacitance

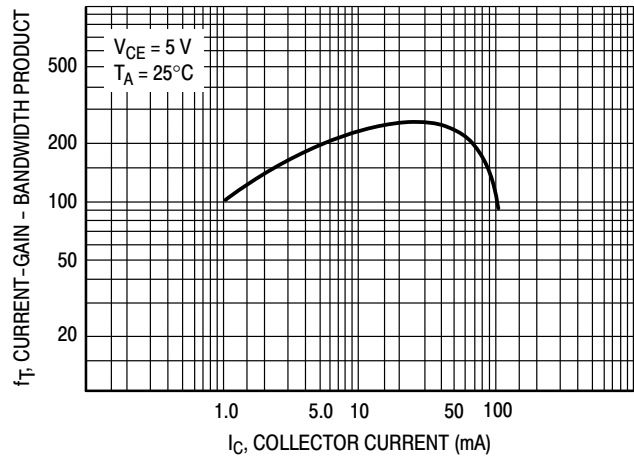
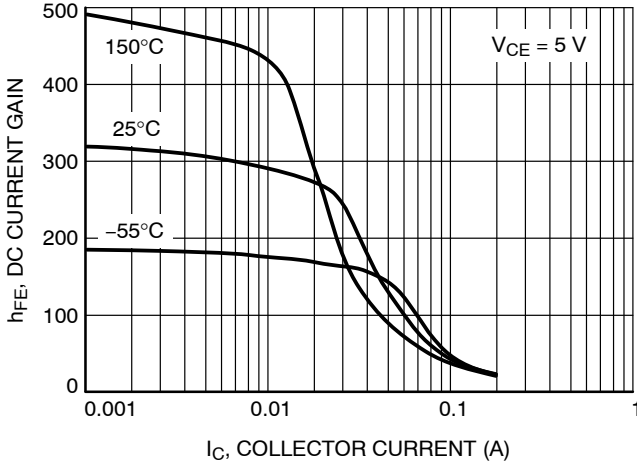


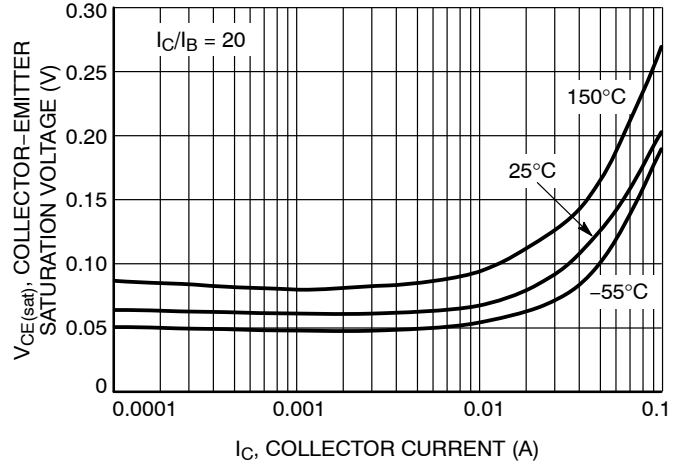
Figure 8. Current-Gain - Bandwidth Product

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

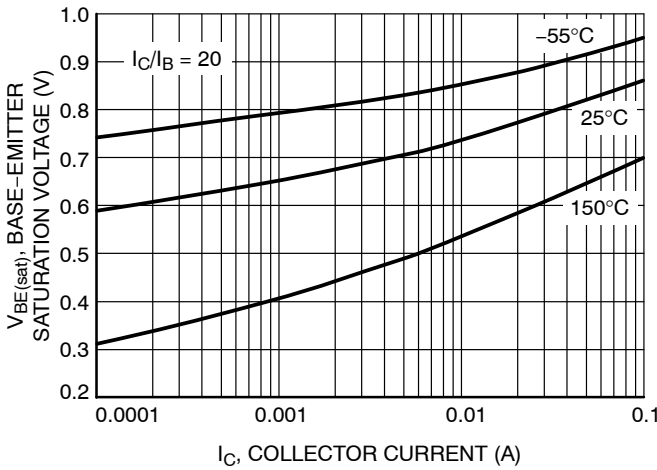
## TYPICAL PNP CHARACTERISTICS — BC846



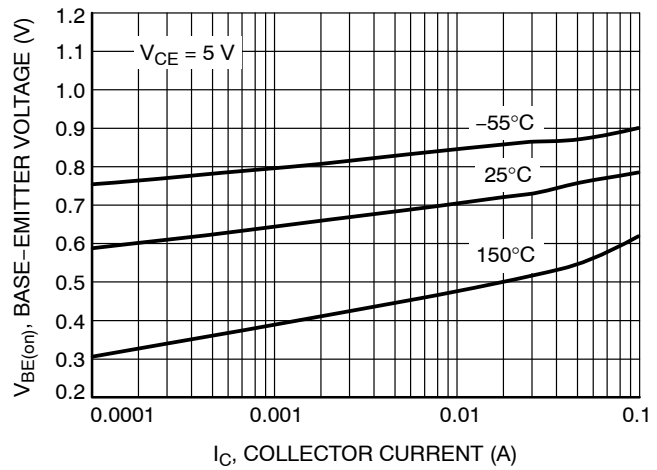
**Figure 9. DC Current Gain vs. Collector Current**



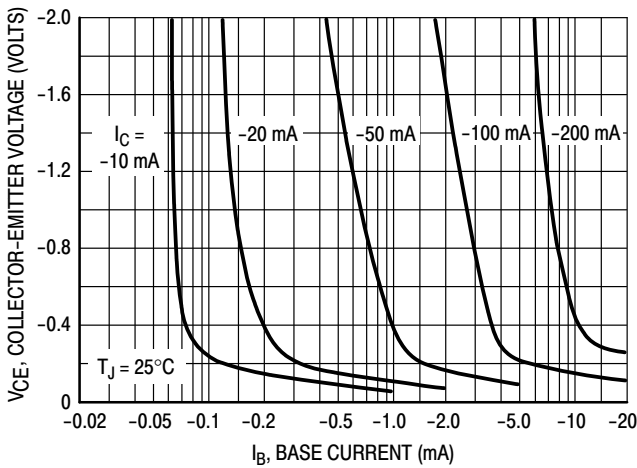
**Figure 10. Collector Emitter Saturation Voltage vs. Collector Current**



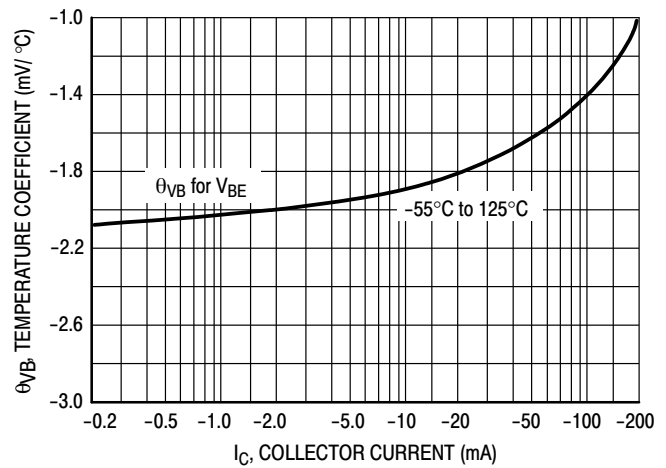
**Figure 11. Base Emitter Saturation Voltage vs. Collector Current**



**Figure 12. Base Emitter Voltage vs. Collector Current**



**Figure 13. Collector Saturation Region**



**Figure 14. Base-Emitter Temperature Coefficient**

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

## TYPICAL PNP CHARACTERISTICS — BC846

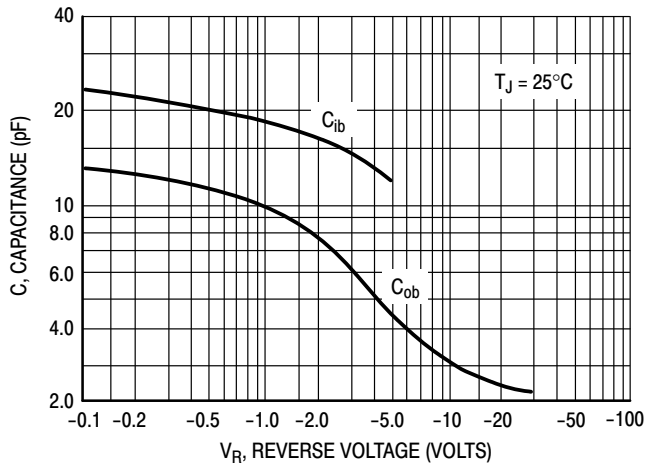


Figure 15. Capacitance

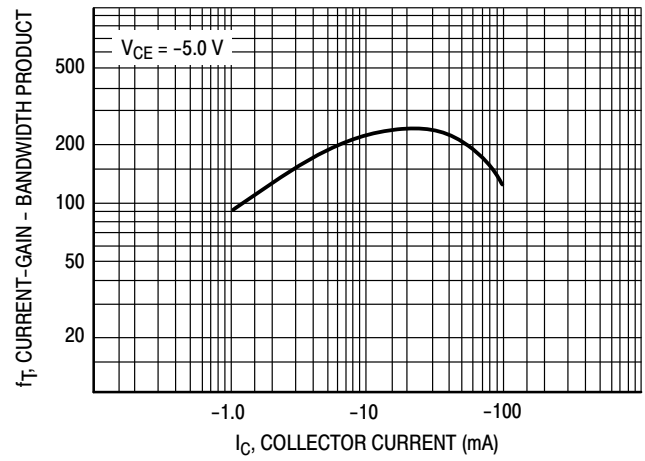
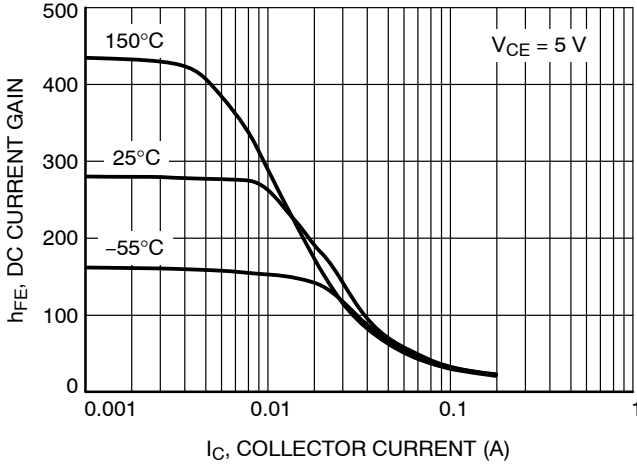


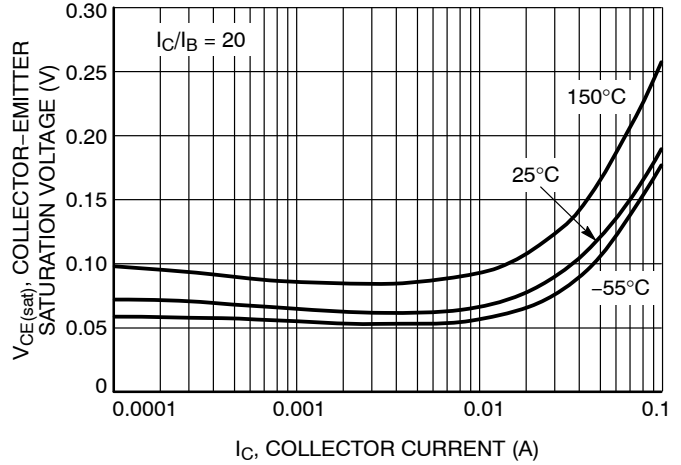
Figure 16. Current-Gain - Bandwidth Product

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

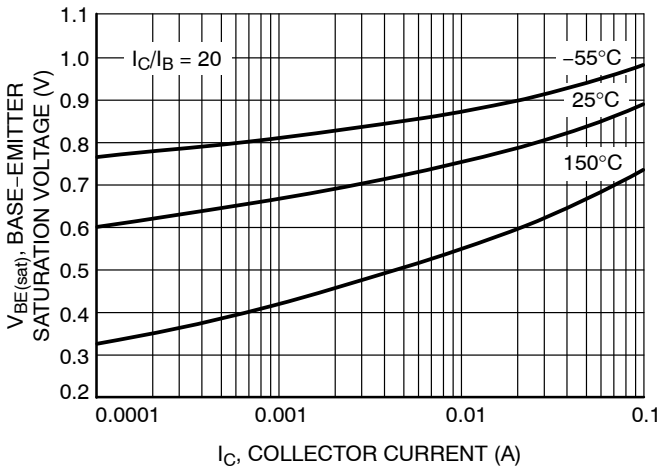
## TYPICAL NPN CHARACTERISTICS – BC847



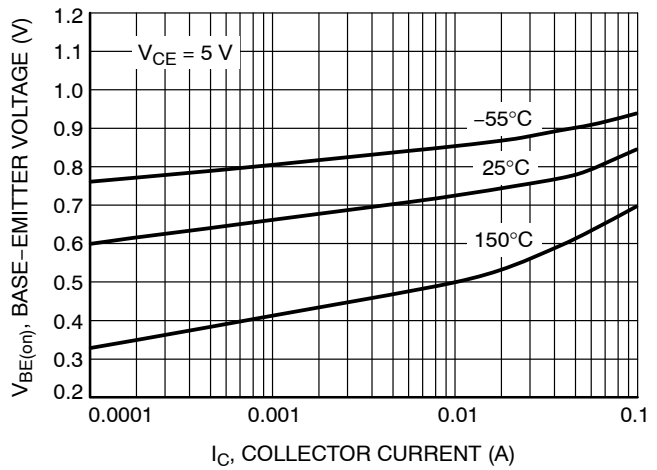
**Figure 17. DC Current Gain vs. Collector Current**



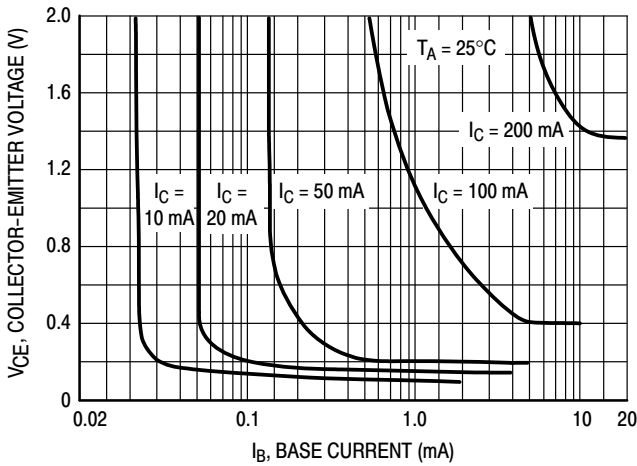
**Figure 18. Collector Emitter Saturation Voltage vs. Collector Current**



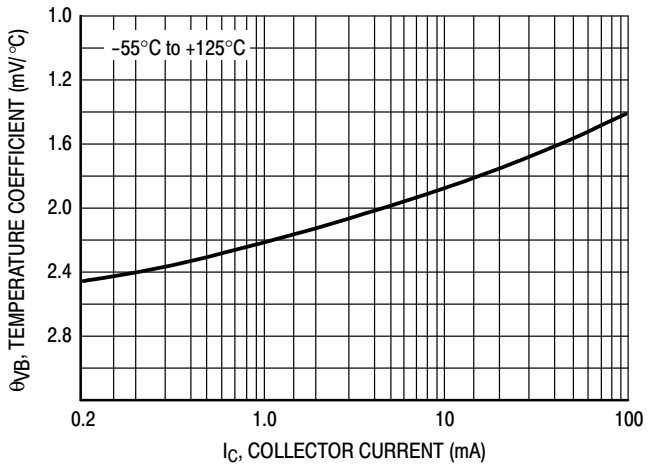
**Figure 19. Base Emitter Saturation Voltage vs. Collector Current**



**Figure 20. Base Emitter Voltage vs. Collector Current**



**Figure 21. Collector Saturation Region**



**Figure 22. Base-Emitter Temperature Coefficient**



# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

## TYPICAL NPN CHARACTERISTICS – BC847

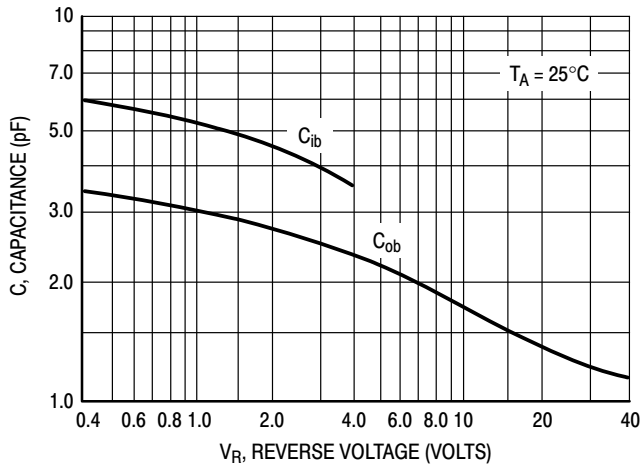


Figure 23. Capacitances

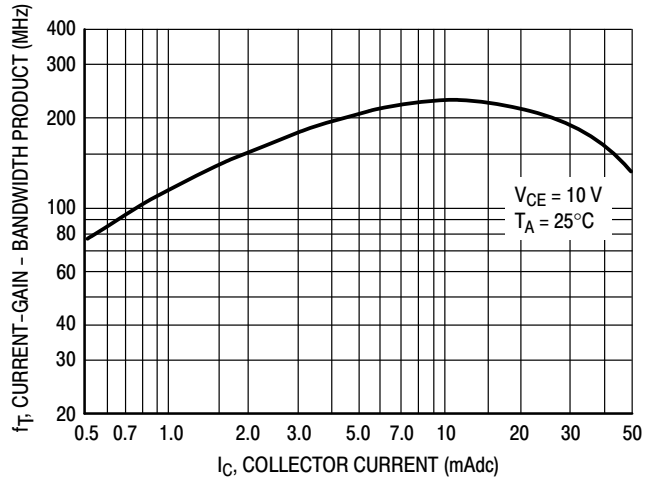


Figure 24. Current-Gain - Bandwidth Product

TYPICAL PNP CHARACTERISTICS – BC847

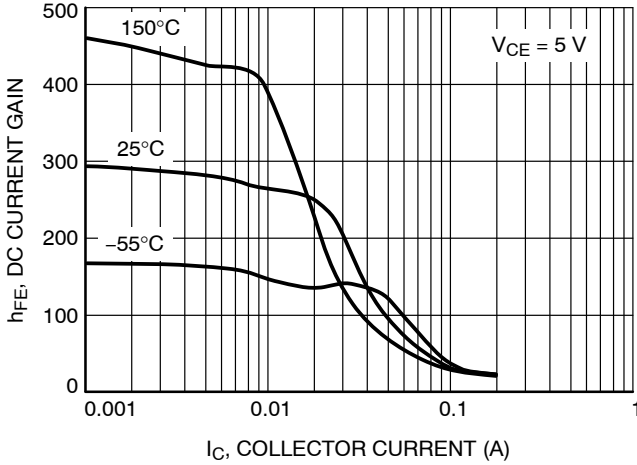


Figure 25. DC Current Gain vs. Collector Current

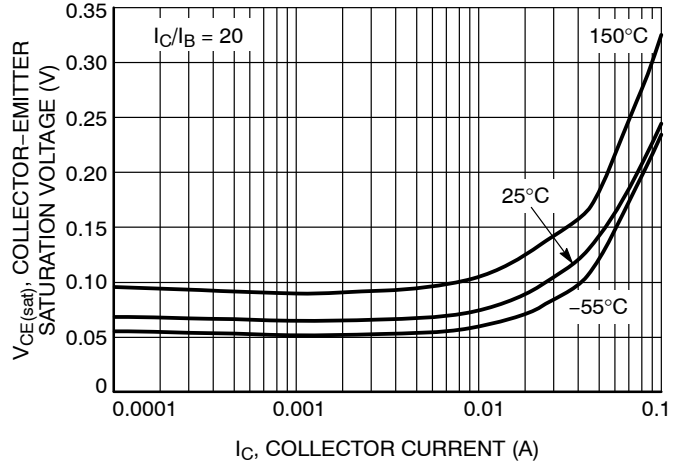


Figure 26. Collector Emitter Saturation Voltage vs. Collector Current

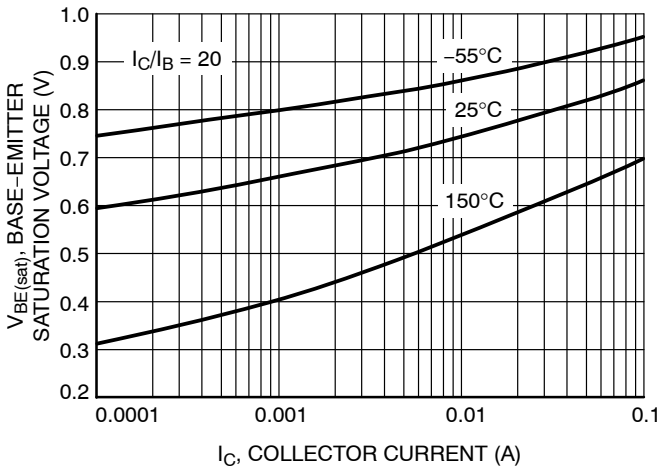


Figure 27. Base Emitter Saturation Voltage vs. Collector Current

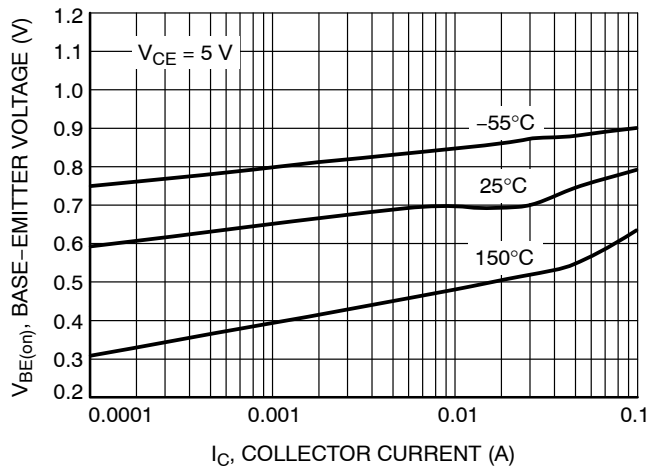


Figure 28. Base Emitter Voltage vs. Collector Current

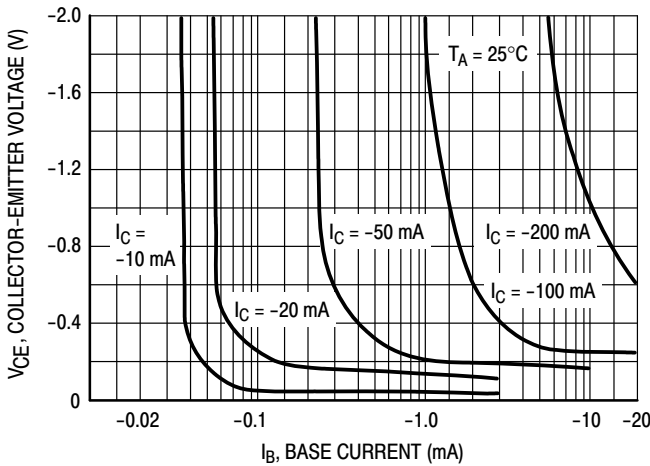


Figure 29. Collector Saturation Region

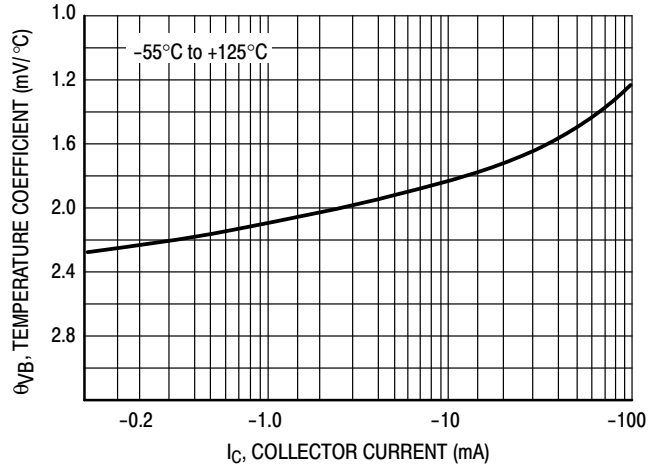


Figure 30. Base-Emitter Temperature Coefficient

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

## TYPICAL PNP CHARACTERISTICS – BC847

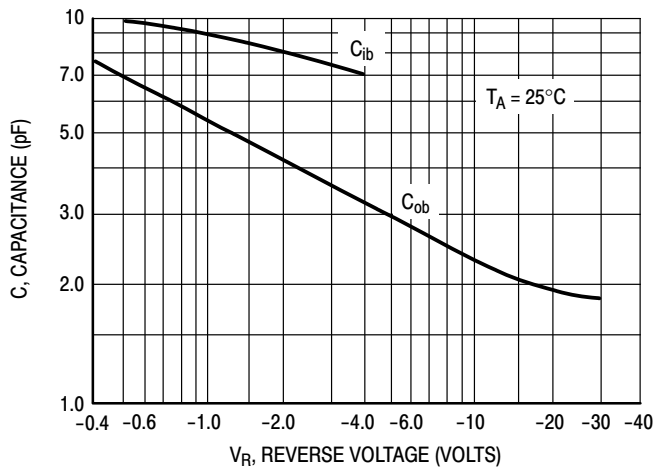


Figure 31. Capacitances

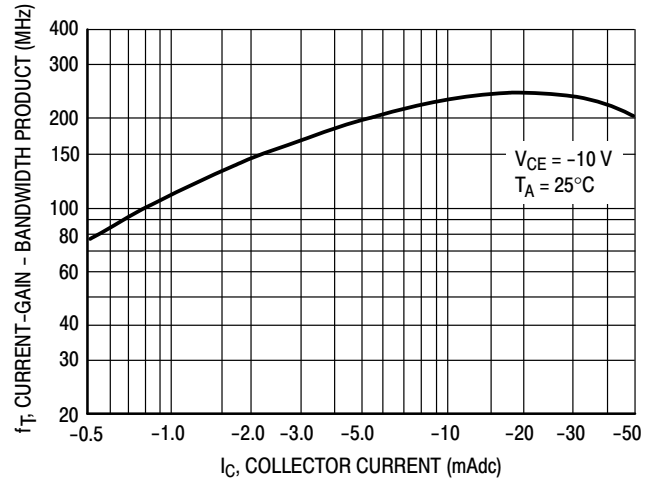
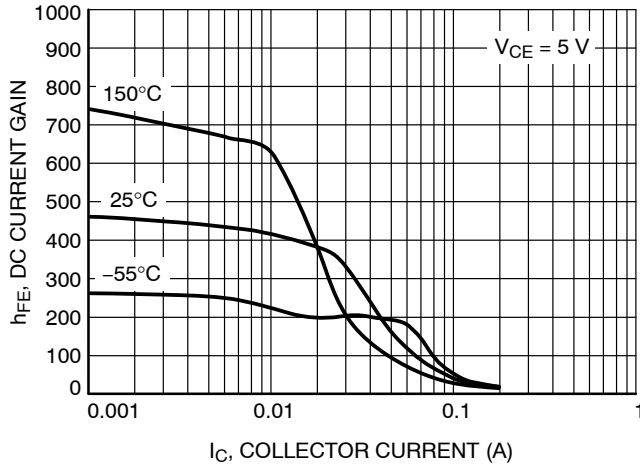


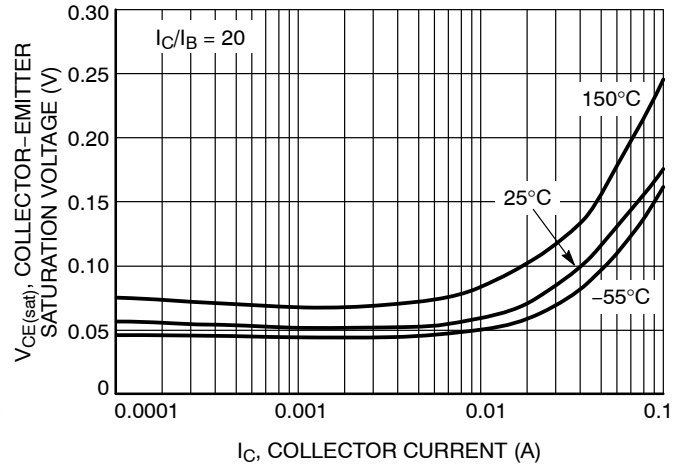
Figure 32. Current-Gain - Bandwidth Product

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

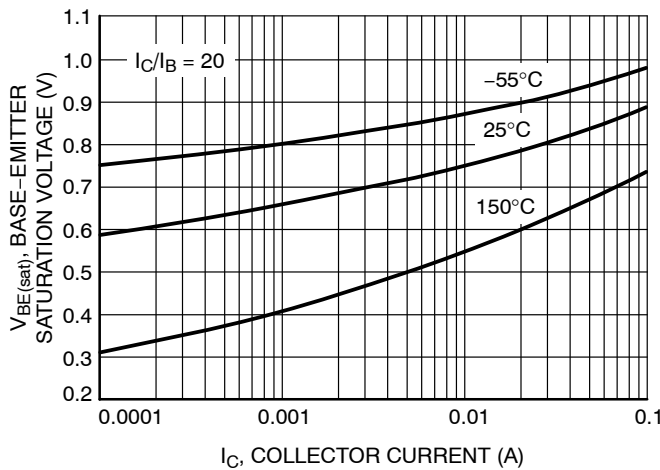
## TYPICAL NPN CHARACTERISTICS – BC848



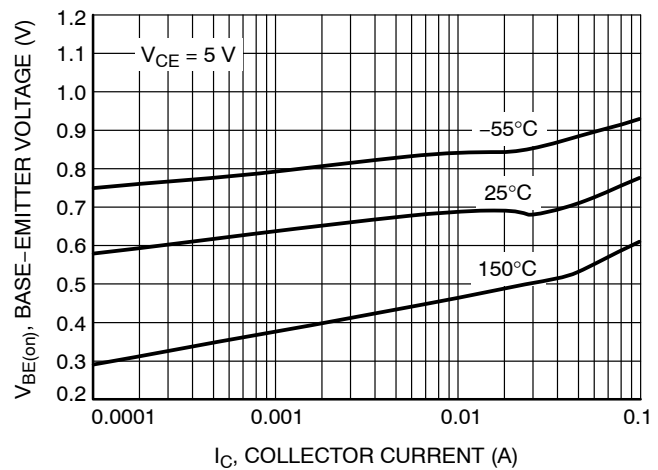
**Figure 33. DC Current Gain vs. Collector Current**



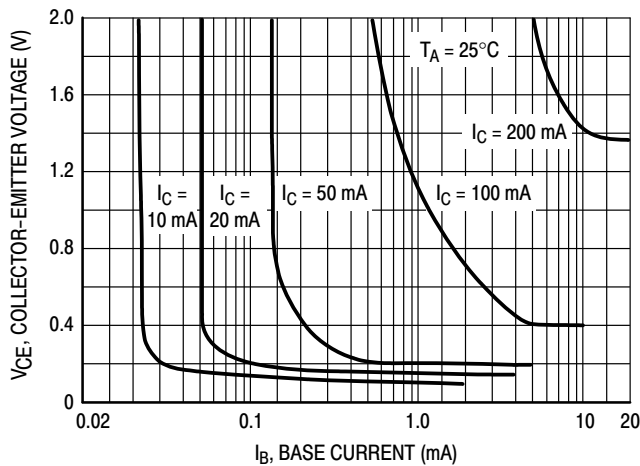
**Figure 34. Collector Emitter Saturation Voltage vs. Collector Current**



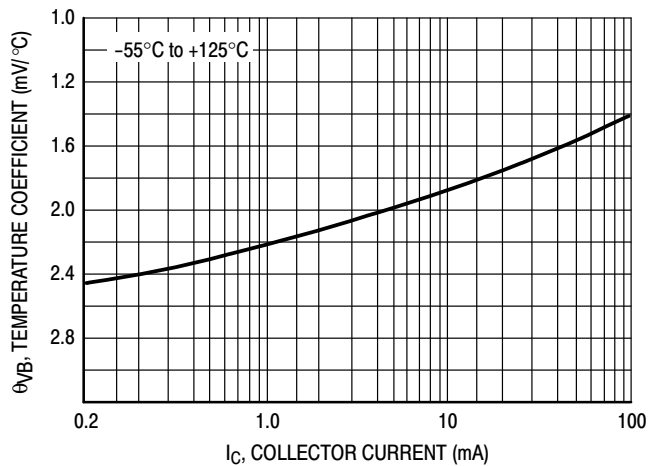
**Figure 35. Base Emitter Saturation Voltage vs. Collector Current**



**Figure 36. Base Emitter Voltage vs. Collector Current**



**Figure 37. Collector Saturation Region**



**Figure 38. Base-Emitter Temperature Coefficient**

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

## TYPICAL NPN CHARACTERISTICS – BC848

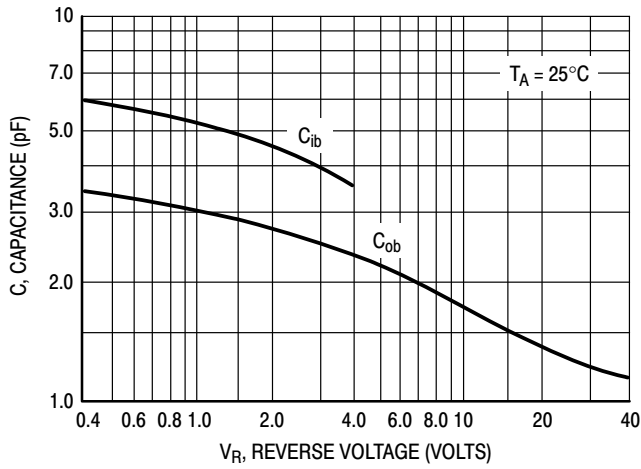


Figure 39. Capacitances

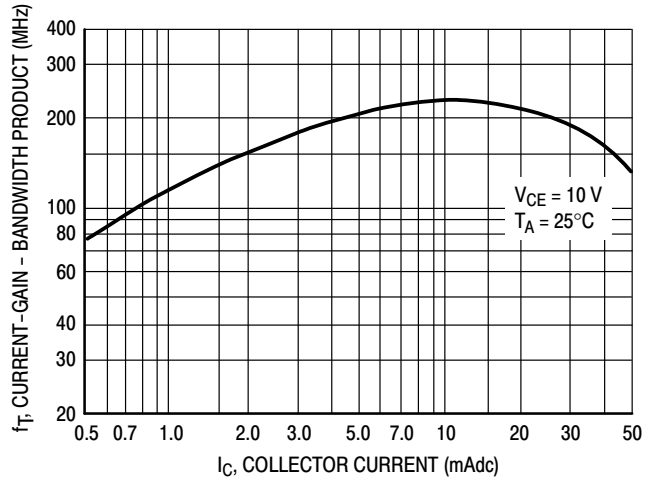
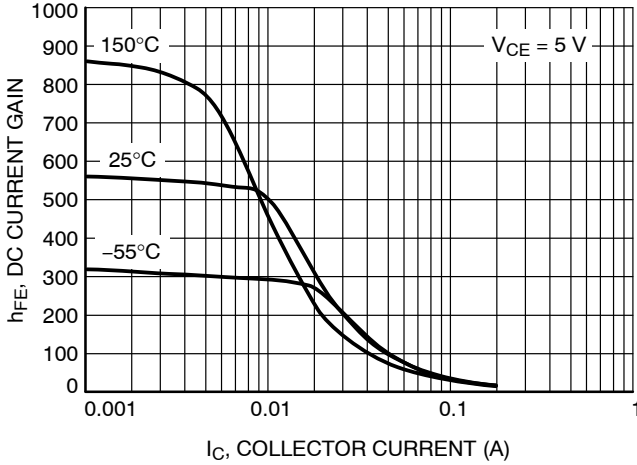


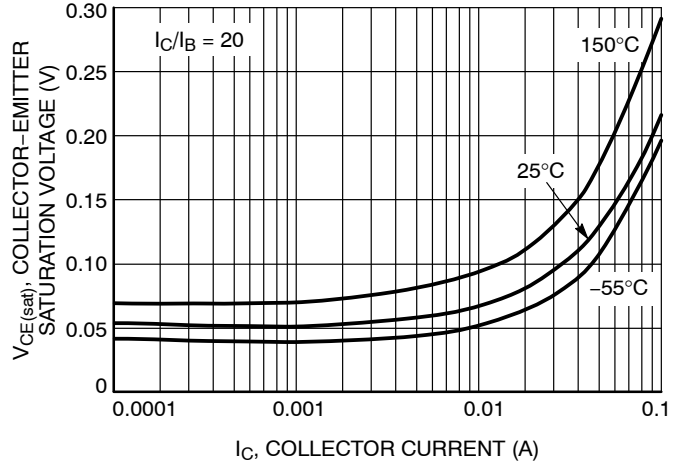
Figure 40. Current-Gain - Bandwidth Product

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

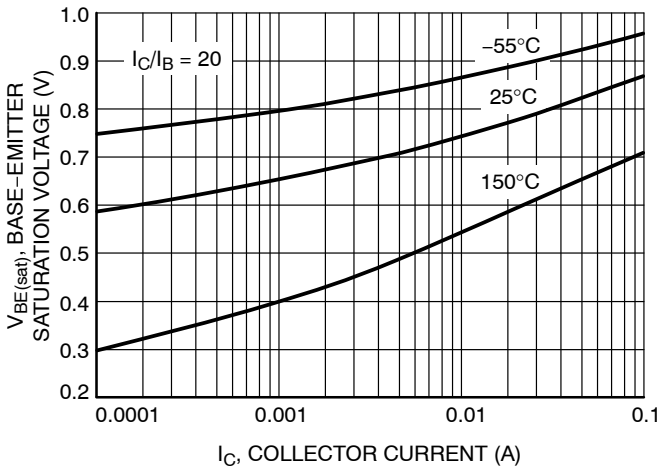
## TYPICAL PNP CHARACTERISTICS – BC848



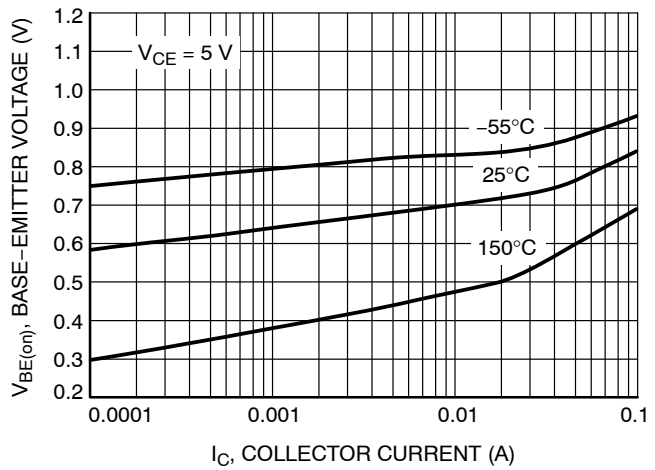
**Figure 41. DC Current Gain vs. Collector Current**



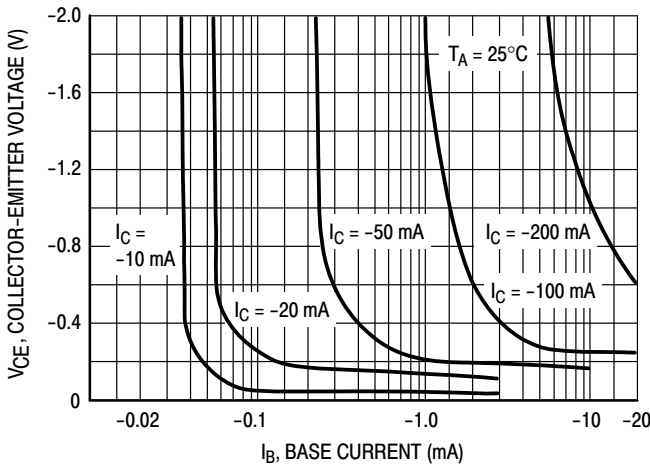
**Figure 42. Collector Emitter Saturation Voltage vs. Collector Current**



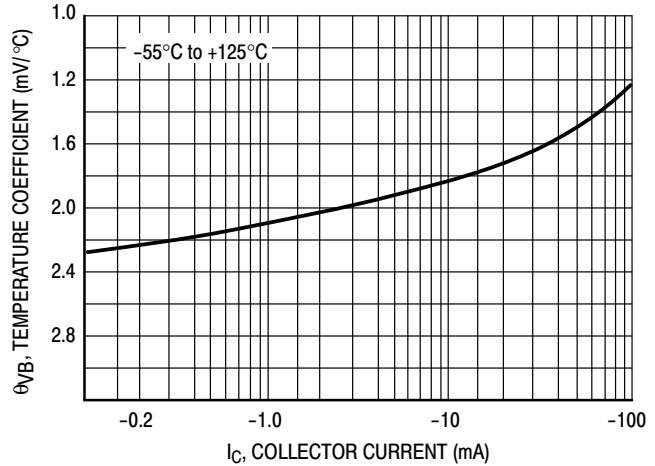
**Figure 43. Base Emitter Saturation Voltage vs. Collector Current**



**Figure 44. Base Emitter Voltage vs. Collector Current**



**Figure 45. Collector Saturation Region**



**Figure 46. Base-Emitter Temperature Coefficient**

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

## TYPICAL PNP CHARACTERISTICS – BC848

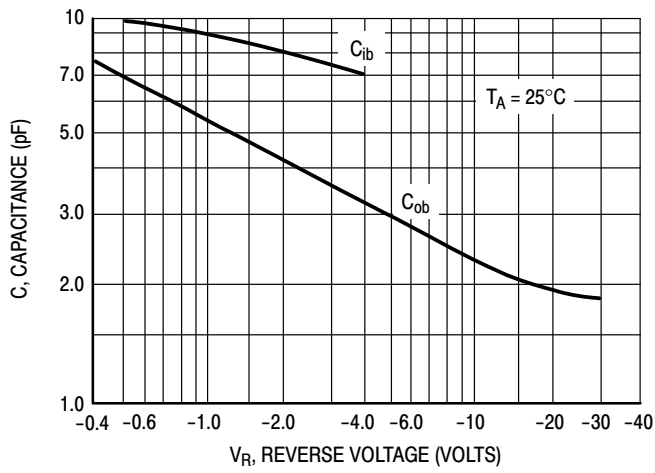


Figure 47. Capacitances

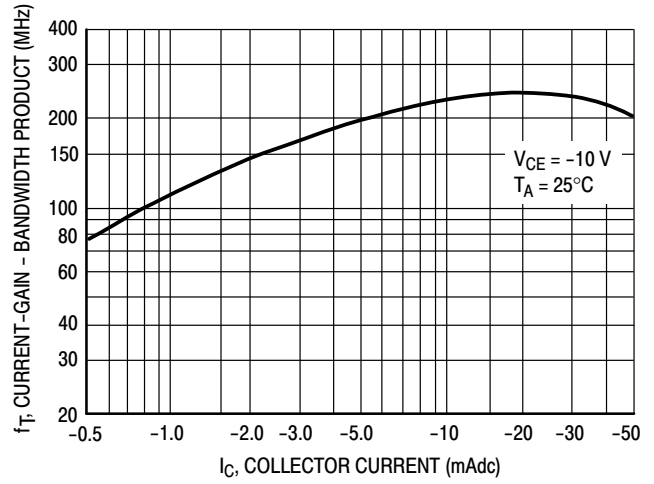


Figure 48. Current-Gain - Bandwidth Product

# BC846BPDW1, BC847BPDW1, BC848CPDW1 Series

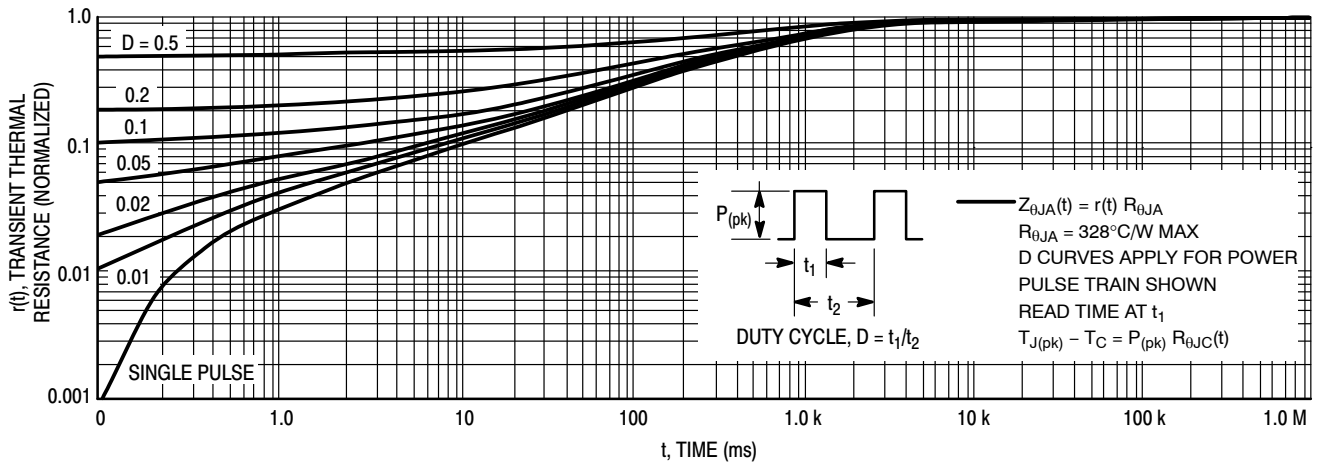


Figure 49. Thermal Response

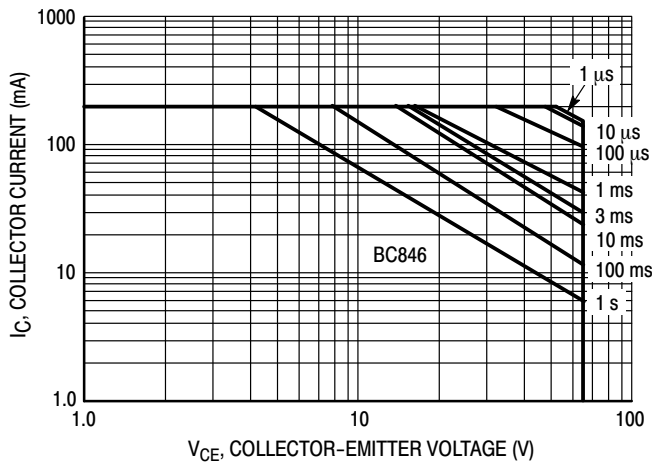


Figure 50. Safe Operating Area – BC846

The safe operating area curves indicate  $I_C$ - $V_{CE}$  limits of the transistor that must be observed for reliable operation. Collector load lines for specific circuits must fall below the limits indicated by the applicable curve.

The data of Figure 50 is based upon  $T_{J(pk)} = 150^\circ\text{C}$ ;  $T_C$  or  $T_A$  is variable depending upon conditions. Pulse curves are valid for duty cycles to 10% provided  $T_{J(pk)} \leq 150^\circ\text{C}$ .  $T_{J(pk)}$  may be calculated from the data in Figure 49. At high case or ambient temperatures, thermal limitations will reduce the power that can be handled to values less than the limitations imposed by the secondary breakdown.

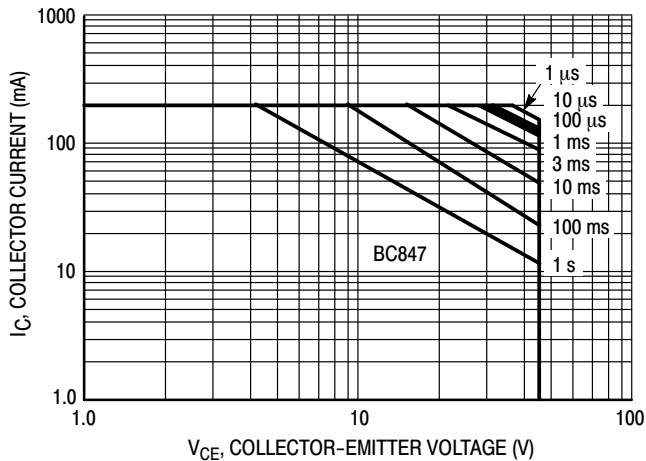


Figure 51. Safe Operating Area – BC847

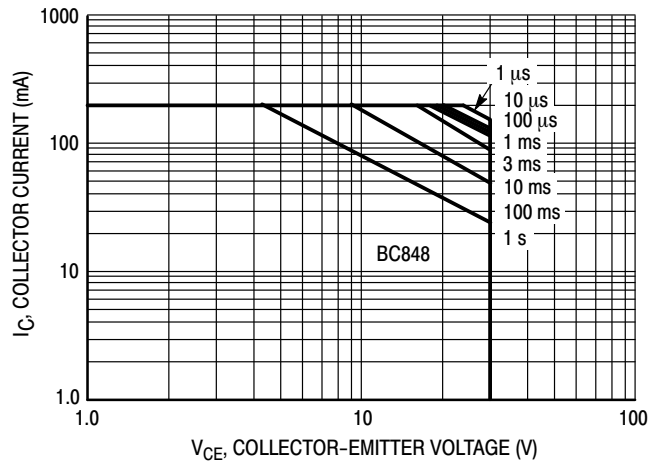


Figure 52. Safe Operating Area – BC848



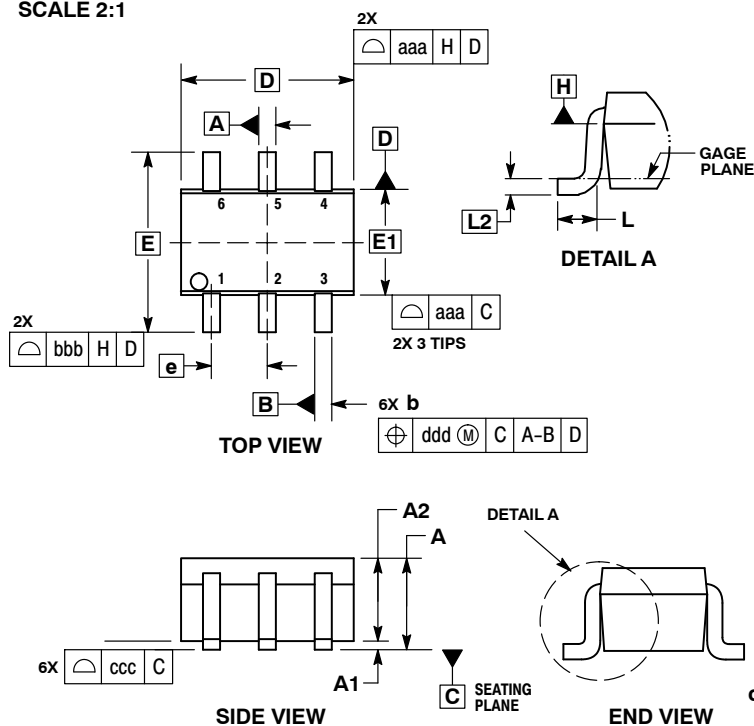
# MECHANICAL CASE OUTLINE PACKAGE DIMENSIONS



1  
SCALE 2:1

SC-88/SC70-6/SOT-363  
CASE 419B-02  
ISSUE Y

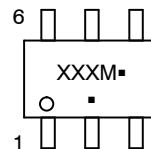
DATE 11 DEC 2012



- NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
  2. CONTROLLING DIMENSION: MILLIMETERS.
  3. DIMENSIONS D AND E1 DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.20 PER END.
  4. DIMENSIONS D AND E1 AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY AND DATUM H.
  5. DATUMS A AND B ARE DETERMINED AT DATUM H.
  6. DIMENSIONS b AND c APPLY TO THE FLAT SECTION OF THE LEAD BETWEEN 0.08 AND 0.15 FROM THE TIP.
  7. DIMENSION b DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.08 TOTAL IN EXCESS OF DIMENSION b AT MAXIMUM MATERIAL CONDITION. THE DAMBAR CANNOT BE LOCATED ON THE LOWER RADIUS OF THE FOOT.

| DIM | MILLIMETERS |      |      | INCHES    |       |       |
|-----|-------------|------|------|-----------|-------|-------|
|     | MIN         | NOM  | MAX  | MIN       | NOM   | MAX   |
| A   | ---         | ---  | 1.10 | ---       | ---   | 0.043 |
| A1  | 0.00        | ---  | 0.10 | 0.000     | ---   | 0.004 |
| A2  | 0.70        | 0.90 | 1.00 | 0.027     | 0.035 | 0.039 |
| b   | 0.15        | 0.20 | 0.25 | 0.006     | 0.008 | 0.010 |
| C   | 0.08        | 0.15 | 0.22 | 0.003     | 0.006 | 0.009 |
| D   | 1.80        | 2.00 | 2.20 | 0.070     | 0.078 | 0.086 |
| E   | 2.00        | 2.10 | 2.20 | 0.078     | 0.082 | 0.086 |
| E1  | 1.15        | 1.25 | 1.35 | 0.045     | 0.049 | 0.053 |
| e   | 0.65 BSC    |      |      | 0.026 BSC |       |       |
| L   | 0.26        | 0.36 | 0.46 | 0.010     | 0.014 | 0.018 |
| L2  | 0.15 BSC    |      |      | 0.006 BSC |       |       |
| aaa | 0.15        |      |      | 0.006     |       |       |
| bbb | 0.30        |      |      | 0.012     |       |       |
| ccc | 0.10        |      |      | 0.004     |       |       |
| ddd | 0.10        |      |      | 0.004     |       |       |

### GENERIC MARKING DIAGRAM\*



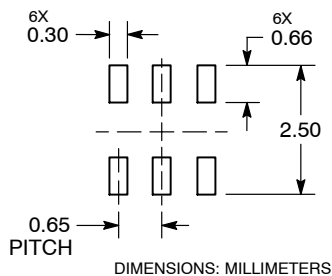
- XXX = Specific Device Code
- M = Date Code\*
- = Pb-Free Package

(Note: Microdot may be in either location)

\*Date Code orientation and/or position may vary depending upon manufacturing location.

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.

### RECOMMENDED SOLDERING FOOTPRINT\*



\*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

### STYLES ON PAGE 2

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**SC-88/SC70-6/SOT-363**  
**CASE 419B-02**  
**ISSUE Y**

DATE 11 DEC 2012

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>STYLE 1:</b><br>PIN 1. EMITTER 2<br>2. BASE 2<br>3. COLLECTOR 1<br>4. EMITTER 1<br>5. BASE 1<br>6. COLLECTOR 2 | <b>STYLE 2:</b><br>CANCELLED  | <b>STYLE 3:</b><br>CANCELLED   | <b>STYLE 4:</b><br>PIN 1. CATHODE<br>2. CATHODE<br>3. COLLECTOR<br>4. EMITTER<br>5. BASE<br>6. ANODE               | <b>STYLE 5:</b><br>PIN 1. ANODE<br>2. ANODE<br>3. COLLECTOR<br>4. EMITTER<br>5. BASE<br>6. CATHODE                 | <b>STYLE 6:</b><br>PIN 1. ANODE 2<br>2. N/C<br>3. CATHODE 1<br>4. ANODE 1<br>5. N/C<br>6. CATHODE 2          |
| <b>STYLE 7:</b><br>PIN 1. SOURCE 2<br>2. DRAIN 2<br>3. GATE 1<br>4. SOURCE 1<br>5. DRAIN 1<br>6. GATE 2           | <b>STYLE 8:</b><br>CANCELLED  | <b>STYLE 9:</b><br>PIN 1. EMITTER 2<br>2. EMITTER 1<br>3. COLLECTOR 1<br>4. BASE 1<br>5. BASE 2<br>6. COLLECTOR 2  | <b>STYLE 10:</b><br>PIN 1. SOURCE 2<br>2. SOURCE 1<br>3. GATE 1<br>4. DRAIN 1<br>5. DRAIN 2<br>6. GATE 2           | <b>STYLE 11:</b><br>PIN 1. CATHODE 2<br>2. CATHODE 2<br>3. ANODE 1<br>4. CATHODE 1<br>5. CATHODE 1<br>6. ANODE 2   | <b>STYLE 12:</b><br>PIN 1. ANODE 2<br>2. ANODE 2<br>3. CATHODE 1<br>4. ANODE 1<br>5. ANODE 1<br>6. CATHODE 2 |
| <b>STYLE 13:</b><br>PIN 1. ANODE<br>2. N/C<br>3. COLLECTOR<br>4. EMITTER<br>5. BASE<br>6. CATHODE                 | <b>STYLE 14:</b><br>PIN 1. VREF<br>2. GND<br>3. GND<br>4. IOUT<br>5. VEN<br>6. VCC                            | <b>STYLE 15:</b><br>PIN 1. ANODE 1<br>2. ANODE 2<br>3. ANODE 3<br>4. CATHODE 3<br>5. CATHODE 2<br>6. CATHODE 1     | <b>STYLE 16:</b><br>PIN 1. BASE 1<br>2. EMITTER 2<br>3. COLLECTOR 2<br>4. BASE 2<br>5. EMITTER 1<br>6. COLLECTOR 1 | <b>STYLE 17:</b><br>PIN 1. BASE 1<br>2. EMITTER 1<br>3. COLLECTOR 2<br>4. BASE 2<br>5. EMITTER 2<br>6. COLLECTOR 1 | <b>STYLE 18:</b><br>PIN 1. VIN1<br>2. VCC<br>3. VOUT2<br>4. VIN2<br>5. GND<br>6. VOUT1                       |
| <b>STYLE 19:</b><br>PIN 1. IOUT<br>2. GND<br>3. GND<br>4. V CC<br>5. V EN<br>6. V REF                             | <b>STYLE 20:</b><br>PIN 1. COLLECTOR<br>2. COLLECTOR<br>3. BASE<br>4. EMITTER<br>5. COLLECTOR<br>6. COLLECTOR | <b>STYLE 21:</b><br>PIN 1. ANODE 1<br>2. N/C<br>3. ANODE 2<br>4. CATHODE 2<br>5. N/C<br>6. CATHODE 1               | <b>STYLE 22:</b><br>PIN 1. D1 (i)<br>2. GND<br>3. D2 (j)<br>4. D2 (c)<br>5. VBUS<br>6. D1 (c)                      | <b>STYLE 23:</b><br>PIN 1. Vn<br>2. CH1<br>3. Vp<br>4. N/C<br>5. CH2<br>6. N/C                                     | <b>STYLE 24:</b><br>PIN 1. CATHODE<br>2. ANODE<br>3. CATHODE<br>4. CATHODE<br>5. CATHODE<br>6. CATHODE       |
| <b>STYLE 25:</b><br>PIN 1. BASE 1<br>2. CATHODE<br>3. COLLECTOR 2<br>4. BASE 2<br>5. EMITTER<br>6. COLLECTOR 1    | <b>STYLE 26:</b><br>PIN 1. SOURCE 1<br>2. GATE 1<br>3. DRAIN 2<br>4. SOURCE 2<br>5. GATE 2<br>6. DRAIN 1      | <b>STYLE 27:</b><br>PIN 1. BASE 2<br>2. BASE 1<br>3. COLLECTOR 1<br>4. EMITTER 1<br>5. EMITTER 2<br>6. COLLECTOR 2 | <b>STYLE 28:</b><br>PIN 1. DRAIN<br>2. DRAIN<br>3. GATE<br>4. SOURCE<br>5. DRAIN<br>6. DRAIN                       | <b>STYLE 29:</b><br>PIN 1. ANODE<br>2. ANODE<br>3. COLLECTOR<br>4. EMITTER<br>5. BASE/ANODE<br>6. CATHODE          | <b>STYLE 30:</b><br>PIN 1. SOURCE 1<br>2. DRAIN 2<br>3. DRAIN 2<br>4. SOURCE 2<br>5. GATE 1<br>6. DRAIN 1    |

Note: Please refer to datasheet for style callout. If style type is not called out in the datasheet refer to the device datasheet pinout or pin assignment.

|                         |                             |  |
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