



Small Signal Transistors U.S Specifications (Preferred Series) SOT-23 Case, 350mW (Continued on next page)

| TYPE NO. | BV _{CB0} | BV _{CEO} | BV _{EBO} | I _{CBO} @ V _{CB} | I _{CEV} @ V _{CE} | h _{FE} | | @ V _{CE} | @ I _C | V _{CE} (SAT) @ I _C | | C _{ob} | f _T | NF | t _{off} |
|----------|-------------------|-------------------|-------------------|------------------------------------|------------------------------------|-----------------|-----|-------------------|------------------|--|------|-----------------|----------------|------|------------------|
| | (V) | (V) | (V) | (nA) | (V) | MIN | MAX | (V) | (mA) | (V) | (mA) | (pF) | (MHz) | (dB) | (ns) |
| | MIN | MIN | MIN | MAX | | | | | | MAX | | MAX | MIN | MAX | MAX |

General Purpose Amplifiers/Switches

Devices are listed in order of descending breakdown voltage.
NPN

| | | | | | | | | | | | | | | | | |
|---|------------|------------|-----------|-----|------|----|-----|-----|-----|-----|------------|-----|-----|-----|-----|-----|
| | CMPT8099 | 80 | 80 | 6.0 | 100 | 80 | 100 | 300 | 5.0 | 1.0 | 0.4 | 100 | 6.0 | 150 | - | - |
| | CMPT2222A | 75 | 40 | 6.0 | 10 | 60 | 100 | 300 | 10 | 150 | 1.0 | 500 | 8.0 | 300 | 4.0 | 285 |
| E | CMPT2222AE | 100 | 45 | 6.0 | 10 | 60 | 100 | 300 | 10 | 150 | 0.5 | 500 | 8.0 | 300 | 4.0 | 285 |
| | CMPT3904 | 60 | 40 | 6.0 | 50* | 30 | 100 | 300 | 1.0 | 10 | 0.3 | 50 | 4.0 | 300 | 5.0 | 250 |
| E | CMPT3904E | 60 | 40 | 6.0 | 50* | 30 | 100 | 300 | 1.0 | | 0.2 | 50 | 4.0 | 300 | 4.0 | 250 |
| | CMPT4401 | 60 | 40 | 6.0 | 100* | 35 | 100 | 300 | 1.0 | 150 | 0.75 | 500 | 6.5 | 250 | - | 255 |

PNP

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|---|------------|-----------|----|------------|------|----|-----|-----|-----|-----|------------|-----|-----|-----|-----|-----|
| | CMPT8599 | 80 | 80 | 5.0 | 100 | 80 | 100 | 300 | 5.0 | 1.0 | 0.4 | 100 | 4.5 | 150 | - | - |
| | CMPT2907A | 60 | 60 | 5.0 | 10 | 50 | 100 | 300 | 10 | 150 | 1.6 | 500 | 8.0 | 200 | - | 100 |
| E | CMPT2907AE | 90 | 60 | 5.0 | 10 | 50 | 100 | 300 | 10 | 150 | 0.7 | 500 | 8.0 | 200 | - | 100 |
| | CMPT3906 | 40 | 40 | 5.0 | 50* | 30 | 100 | 300 | 1.0 | 10 | 0.4 | 50 | 4.5 | 250 | 4.0 | 300 |
| E | CMPT3906E | 60 | 40 | 6.0 | 50* | 30 | 100 | 300 | 1.0 | 10 | 0.2 | 50 | 4.0 | 300 | 4.0 | 250 |
| | CMPT4403 | 40 | 40 | 5.0 | 100* | 35 | 100 | 300 | 2.0 | 150 | 0.75 | 500 | 8.5 | 200 | - | 255 |

Saturated Switches

Devices are listed in order of descending f_T.

NPN

| | | | | | | | | | | | | | | | | |
|--|----------|----|----|-----|-------|----|----|-----|-----|-----|------|-----|-----|-----|---|----|
| | CMPT2369 | 40 | 15 | 4.5 | 400 | 20 | 40 | 120 | 1.0 | 10 | 0.25 | 10 | 4.0 | 500 | - | 18 |
| | CMPT3646 | 40 | 15 | 5.0 | 500** | 20 | 15 | - | 1.0 | 300 | 0.5 | 300 | 5.0 | 350 | - | 28 |

PNP

| | | | | | | | | | | | | | | | | |
|--|----------|----|----|-----|------|-----|----|-----|-----|----|-----|----|-----|-----|---|----|
| | CMPT3640 | 12 | 12 | 4.0 | 10** | 6.0 | 30 | 120 | 0.3 | 10 | 0.6 | 50 | 3.5 | 500 | - | 35 |
|--|----------|----|----|-----|------|-----|----|-----|-----|----|-----|----|-----|-----|---|----|

Low Noise Amplifiers

Devices are listed in order of ascending NF.

NPN

| | | | | | | | | | | | | | | | | |
|--|----------|-----|-----|-----|----|----|-----|-------|-----|------|------|-----|-----|-----|-----|---|
| | CMPT5089 | 30 | 25 | 4.5 | 50 | 15 | 400 | 1,200 | 5.0 | 0.1 | 0.5 | 10 | 4.0 | 50 | 2.0 | - |
| | CMPT930 | 45 | 45 | 5.0 | 10 | 45 | 100 | 300 | 5.0 | 0.01 | 1.0 | 10 | 8.0 | 30 | 3.0 | - |
| | CMPT992 | 120 | 120 | 5.0 | - | - | 200 | 800 | 6.0 | 1.0 | 0.3 | 10 | 3.0 | 50 | 3.0 | - |
| | CMPT2484 | 60 | 60 | 6.0 | 10 | 45 | 250 | - | 5.0 | 1.0 | 0.35 | 1.0 | 6.0 | - | 3.0 | - |
| | CMPT5088 | 35 | 30 | 4.5 | 50 | 20 | 300 | 900 | 5.0 | 0.1 | 0.5 | 10 | 4.0 | 50 | 3.0 | - |
| | CMPT6428 | 60 | 50 | 6.0 | 10 | 30 | 250 | 650 | 5.0 | 0.1 | 0.6 | 100 | 3.0 | 100 | 3.0 | - |
| | CMPT6429 | 55 | 45 | 6.0 | 10 | 30 | 500 | 1,250 | 5.0 | 0.1 | 0.6 | 100 | 3.0 | 100 | 3.0 | - |

PNP

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|--|----------|----|----|-----|----|----|-----|-----|-----|-----|-----|----|-----|----|-----|---|
| | CMPT5087 | 50 | 50 | 3.0 | 50 | 35 | 250 | 800 | 5.0 | 0.1 | 0.3 | 10 | 4.0 | 40 | 2.0 | - |
| | CMPT5086 | 50 | 50 | 3.0 | 50 | 35 | 150 | 500 | 5.0 | 0.1 | 0.3 | 10 | 4.0 | 40 | 3.0 | - |

E indicates Enhanced Specification Device

BOLD data indicates Enhanced Specification

CentralTM
Semiconductor Corp.

www.centalsemi.com



Small Signal Transistors U.S Specifications (Preferred Series) SOT-23 Case, 350mW (Continued on next page)

| TYPE NO. | BV _{CB0} | BV _{CEO} *BV _{CES} | BV _{EBO} | I _{CB0} @ *I _{CEV} @ | V _{CB} V _{CE} | hFE | | @ V _{CE} | @ I _c | V _{CE} (SAT) | @ I _c | C _{ob} | f _T | NF | t _{off} |
|----------|-------------------|---|-------------------|---|------------------------------------|-----|-----|-------------------|------------------|-----------------------|------------------|-----------------|----------------|------|------------------|
| | (V) | (V) | (V) | (nA) | (V) | MIN | MAX | (V) | (mA) | (V) | (mA) | (pF) | (MHz) | (dB) | (ns) |
| | MIN | MIN | MIN | MAX | | | | | | MAX | | MAX | MIN | MAX | MAX |

High Current Devices are listed in order of descending breakdown voltage.

NPN

| | | | | | | | | | | | | | | | |
|---------------------|-----|----|-----|-----|----|-----|-----|-----|-----|------|-----|----|-----|-----|---|
| E ▶ CMPT3019 | 120 | 80 | 7.0 | 10 | 90 | 100 | 300 | 10 | 150 | 0.5 | 500 | 12 | 100 | 4.0 | - |
| CMPTA06 | 80 | 80 | 4.0 | 100 | 80 | 100 | - | 1.0 | 100 | 0.25 | 100 | - | 100 | - | - |
| E ▶ CMPT491E | 80 | 60 | 5.0 | 100 | 60 | 200 | 600 | 5.0 | 500 | 0.2 | 500 | 10 | 150 | - | - |

PNP

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|---------------------|----|----|-----|-----|----|-----|-----|-----|-----|------|-----|----|-----|---|---|
| E ▶ CMPT4033 | 80 | 80 | 5.0 | 50 | 60 | 100 | 300 | 5.0 | 100 | 0.5 | 500 | 20 | 100 | - | - |
| CMPTA56 | 80 | 80 | 4.0 | 100 | 80 | 100 | - | 1.0 | 100 | 0.25 | 100 | - | 50 | - | - |
| E ▶ CMPT591E | 80 | 60 | 5.0 | 100 | 60 | 200 | 600 | 5.0 | 500 | 0.2 | 500 | 10 | 150 | - | - |

High Voltage Devices are listed in order of descending breakdown voltage.

NPN

| | | | | | | | | | | | | | | | |
|---------------------|------------|------------|-----|-----|-----|-----------|-----|-----|----|-------------|----|-----|------------|-----|---|
| E ▶ CMPTA46 | 450 | 450 | 6.0 | 100 | 400 | 50 | 200 | 10 | 10 | 0.5 | 50 | 7.0 | 20 | - | - |
| CMPTA44 | 450 | 400 | 6.0 | 100 | 400 | 50 | 200 | 10 | 10 | 0.75 | 50 | 7.0 | 20 | - | - |
| CMPT6517 | 350 | 350 | 5.0 | 50 | 250 | 30 | 200 | 10 | 30 | 1.0 | 50 | - | 40 | - | - |
| CMPTA42 | 300 | 300 | 6.0 | 100 | 200 | 40 | - | 10 | 30 | 0.5 | 20 | 3.0 | 50 | - | - |
| E ▶ CMPTA42E | 350 | 350 | 6.0 | 250 | 200 | 50 | - | 10 | 30 | 0.35 | 50 | 6.0 | 100 | - | - |
| CMPT5551 | 180 | 160 | 6.0 | 50 | 120 | 80 | 250 | 5.0 | 10 | 0.2 | 50 | 6.0 | 100 | 8.0 | - |

PNP

| | | | | | | | | | | | | | | | |
|---------------------|------------|------------|------------|-----|-----|-----------|-----|-----|----|-------------|----|-----|------------|-----|---|
| E ▶ CMPTA96 | 450 | 450 | 6.0 | 100 | 400 | 50 | 200 | 10 | 10 | 0.5 | 50 | 7.0 | 20 | - | - |
| CMPTA94 | 400 | 400 | 6.0 | 100 | 350 | 50 | 200 | 10 | 10 | 0.75 | 50 | 7.0 | 20 | - | - |
| CMPT6520 | 350 | 350 | 5.0 | 50 | 250 | 30 | 200 | 10 | 30 | 1.0 | 50 | - | 40 | - | - |
| CMPTA92 | 300 | 300 | 5.0 | 250 | 200 | 25 | - | 10 | 30 | 0.5 | 20 | 6.0 | 50 | - | - |
| E ▶ CMPTA92E | 350 | 350 | 6.0 | 250 | 200 | 50 | - | 10 | 30 | 0.35 | 50 | 6.0 | 100 | - | - |
| CMPT5401 | 160 | 150 | 5.0 | 50 | 100 | 60 | 240 | 5.0 | 10 | 0.5 | 50 | 6.0 | 100 | 8.0 | - |

E ▶ Indicates Enhanced Specification Device

BOLD data indicates Enhanced Specification



Small Signal Transistors U.S Specifications (Preferred Series) SOT-23 Case, 350mW

| TYPE NO. | BV _{CB0} | BV _{CEO} *BV _{CES} | BV _{EBO} | I _{CBO} @ *I _{CEV} @ | V _{CB} V _{CE} | h _{FE} | | @ V _{CE} | @ I _C | V _{CE} (SAT) @ I _C | | C _{ob} | f _T | NF | t _{off} |
|----------|-------------------|---|-------------------|---|------------------------------------|-----------------|-----|-------------------|------------------|--|------|-----------------|----------------|-------------|------------------|
| | (V) MIN | (V) MIN | (V) MIN | (nA) MAX | (V) MAX | MIN | MAX | (V) | (mA) | (V) MAX | (mA) | (pF) MAX | (MHz) MIN | (dB) MAX | (ns) MAX |

RF Oscillator Devices are listed in order of descending f_T.

| NPN | | | | | | | | | | | | | | | |
|----------|----|----|-----|-----|----|----|---|-----|-----|-----|-----|-----|-----|-----|---|
| CMPT5179 | 20 | 12 | 2.5 | 20 | 15 | 25 | - | 1.0 | 3.0 | 0.4 | 10 | 1.0 | 900 | 4.5 | - |
| CMPTH10 | 30 | 25 | 3.0 | 100 | 25 | 60 | - | 10 | 4.0 | 0.5 | 4.0 | 0.7 | 650 | - | - |
| CMPT918 | 30 | 15 | 3.0 | 10 | 15 | 20 | - | 1.0 | 3.0 | 0.4 | 10 | 1.7 | 600 | 6.0 | - |

PNP

| | | | | | | | | | | | | | | | |
|---------|----|----|-----|-----|----|----|---|----|-----|-----|-----|------|-----|---|---|
| CMPTH81 | 20 | 20 | 3.0 | 100 | 10 | 60 | - | 10 | 5.0 | 0.5 | 5.0 | 0.85 | 600 | - | - |
|---------|----|----|-----|-----|----|----|---|----|-----|-----|-----|------|-----|---|---|

Darlington Devices are listed in order of descending h_{FE}.

| NPN | | | | | | | | | | | | | | | |
|---------------------|-----------|------------|----|------------|----|---------------|---------|-----|-----|------------|-----|-----|-----|----|---|
| CMPT6427 | 40 | 40 | 12 | 50 | 30 | 20,000 | 200,000 | 5.0 | 100 | 1.5 | 500 | 7.0 | 130 | 10 | - |
| CMPTA14 | 30 | 30* | 10 | 100 | 30 | 20,000 | - | 5.0 | 100 | 1.5 | 100 | - | 125 | - | - |
| E > CMPTA14E | 40 | 40* | 10 | 100 | 40 | 40,000 | - | 5.0 | 100 | 1.0 | 100 | - | 125 | - | - |
| CMPTA13 | 30 | 30* | 10 | 100 | 30 | 10,000 | - | 5.0 | 100 | 1.5 | 100 | - | 125 | - | - |
| CMPTA27 | 60 | 60* | 10 | 100 | 50 | 10,000 | - | 5.0 | 100 | 1.5 | 100 | - | 125 | - | - |
| CMPTA29 | 100 | 100* | 12 | 100 | 80 | 10,000 | - | 5.0 | 100 | 1.5 | 100 | 8.0 | 125 | - | - |

PNP

| | | | | | | | | | | | | | | | |
|---------|----|-----|----|-----|----|--------|---|-----|-----|-----|-----|---|-----|---|---|
| CMPTA64 | 30 | 30* | 10 | 100 | 30 | 20,000 | - | 5.0 | 100 | 1.5 | 100 | - | 125 | - | - |
| CMPTA63 | 30 | 30* | 10 | 100 | 30 | 10,000 | - | 5.0 | 100 | 1.5 | 100 | - | 125 | - | - |
| CMPTA77 | 60 | 60* | 10 | 100 | 50 | 10,000 | - | 5.0 | 100 | 1.5 | 100 | - | 125 | - | - |

Chopper Transistor

| PNP | | | | | | | | | | | | | | | |
|----------|----|----|----|-----|----|-----|-----|------|----|------|----|-----|---|---|---|
| CMPT404A | 40 | 35 | 25 | 100 | 10 | 100 | 400 | 0.15 | 12 | 0.20 | 24 | 40† | - | - | - |

E > Indicates Enhanced Specification Device

BOLD data indicates Enhanced Specification

Shaded areas indicate Darlington.



Transistors

SOT-23 Case Proelectron Series 350mW

| TYPE NO. | DESCRIPTION | BV _{CBO} | BV _{CEO} | BV _{EBO} | I _{CB0} @ V _{CB} | | h _{FE} @ V _{CE} @ I _C | | V _{CE(SAT)} @ I _C | C _{ob} (pF) TYP | f _T (MHz) TYP | NF (dB) MAX | t _{off} (ns) MAX | MARK. CODE | SIMILAR LEADED DEVICES | | |
|----------|------------------|-------------------|-------------------|-------------------|------------------------------------|---------|--|-----|---------------------------------------|--------------------------|--------------------------|-------------|---------------------------|------------|------------------------|---|----------|
| | | (V) MIN | (V) MIN | (V) MIN | (nA) MAX | (V) MAX | MIN | MAX | (V) MAX | | (mA) MAX | | | | | | |
| BC807 | PNP High Current | 50* | 45 | 5.0 | 100 | 20 | 100 | 600 | 1.0 | 100 | 0.70 | 500 | 8.0 | 100 | - | - | BC327 |
| BC807.16 | PNP High Current | 50* | 45 | 5.0 | 100 | 20 | 100 | 250 | 1.0 | 100 | 0.70 | 500 | 8.0 | 100 | - | - | BC327.16 |
| BC807.25 | PNP High Current | 50* | 45 | 5.0 | 100 | 20 | 160 | 400 | 1.0 | 100 | 0.70 | 500 | 8.0 | 100 | - | - | BC327.25 |
| BC807.40 | PNP High Current | 50* | 45 | 5.0 | 100 | 20 | 250 | 600 | 1.0 | 100 | 0.70 | 500 | 8.0 | 100 | - | - | BC327.40 |
| BC808 | PNP High Current | 30* | 25 | 5.0 | 100 | 20 | 100 | 600 | 1.0 | 100 | 0.70 | 500 | 8.0 | 100 | - | - | BC328 |
| BC808.16 | PNP High Current | 30* | 25 | 5.0 | 100 | 20 | 100 | 250 | 1.0 | 100 | 0.70 | 500 | 8.0 | 100 | - | - | BC328.16 |
| BC808.25 | PNP High Current | 30* | 25 | 5.0 | 100 | 20 | 160 | 400 | 1.0 | 100 | 0.70 | 500 | 8.0 | 100 | - | - | BC328.25 |
| BC808.40 | PNP High Current | 30* | 25 | 5.0 | 100 | 20 | 250 | 600 | 1.0 | 100 | 0.70 | 500 | 8.0 | 100 | - | - | BC328.40 |
| BC817 | NPN High Current | 50* | 45 | 5.0 | 100 | 20 | 100 | 600 | 1.0 | 100 | 0.70 | 500 | 5.0 | 200 | - | - | BC337 |
| BC817.16 | NPN High Current | 50* | 45 | 5.0 | 100 | 20 | 100 | 250 | 1.0 | 100 | 0.70 | 500 | 5.0 | 200 | - | - | BC337.16 |
| BC817.25 | NPN High Current | 50* | 45 | 5.0 | 100 | 20 | 160 | 400 | 1.0 | 100 | 0.70 | 500 | 5.0 | 200 | - | - | BC337.25 |
| BC817.40 | NPN High Current | 50* | 45 | 5.0 | 100 | 20 | 250 | 600 | 1.0 | 100 | 0.70 | 500 | 5.0 | 200 | - | - | BC337.40 |
| BC818 | NPN High Current | 30* | 25 | 5.0 | 100 | 20 | 100 | 600 | 1.0 | 100 | 0.70 | 500 | 5.0 | 200 | - | - | BC338 |
| BC818.16 | NPN High Current | 30* | 25 | 5.0 | 100 | 20 | 100 | 250 | 1.0 | 100 | 0.70 | 500 | 5.0 | 200 | - | - | BC338.16 |
| BC818.25 | NPN High Current | 30* | 25 | 5.0 | 100 | 20 | 160 | 400 | 1.0 | 100 | 0.70 | 500 | 5.0 | 200 | - | - | BC338.25 |
| BC818.40 | NPN High Current | 30* | 25 | 5.0 | 100 | 20 | 250 | 600 | 1.0 | 100 | 0.70 | 500 | 5.0 | 200 | - | - | BC338.40 |
| BC846 | NPN Low Noise | 80 | 65 | 6.0 | 15 | 30 | 110 | 450 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC546 |
| BC846A | NPN Low Noise | 80 | 65 | 6.0 | 15 | 30 | 110 | 220 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC546A |
| BC846B | NPN Low Noise | 80 | 65 | 6.0 | 15 | 30 | 200 | 450 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC546B |
| BC847 | NPN Low Noise | 50 | 45 | 6.0 | 15 | 30 | 110 | 800 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC547 |
| BC847A | NPN Low Noise | 50 | 45 | 6.0 | 15 | 30 | 110 | 220 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC547A |
| BC847B | NPN Low Noise | 50 | 45 | 6.0 | 15 | 30 | 200 | 450 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC547B |
| BC847C | NPN Low Noise | 50 | 45 | 6.0 | 15 | 30 | 420 | 800 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC547C |
| BC848 | NPN Low Noise | 30 | 30 | 5.0 | 15 | 30 | 110 | 800 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC548 |
| BC848A | NPN Low Noise | 30 | 30 | 5.0 | 15 | 30 | 110 | 220 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC548A |
| BC848B | NPN Low Noise | 30 | 30 | 5.0 | 15 | 30 | 200 | 450 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC548B |
| BC848C | NPN Low Noise | 30 | 30 | 5.0 | 15 | 30 | 420 | 800 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 10 | - | BC548C |
| BC849 | NPN Low Noise | 30 | 30 | 5.0 | 15 | 30 | 200 | 800 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 4.0 | - | BC549 |
| BC849B | NPN Low Noise | 30 | 30 | 5.0 | 15 | 30 | 200 | 450 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 4.0 | - | BC549B |
| BC849C | NPN Low Noise | 30 | 30 | 5.0 | 15 | 30 | 420 | 800 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 4.0 | - | BC549C |
| BC850 | NPN Low Noise | 50 | 45 | 5.0 | 15 | 30 | 200 | 800 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 3.0 | - | BC550 |
| BC850B | NPN Low Noise | 50 | 45 | 5.0 | 15 | 30 | 200 | 450 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 3.0 | - | BC550B |
| BC850C | NPN Low Noise | 50 | 45 | 5.0 | 15 | 30 | 420 | 800 | 5.0 | 2.0 | 0.60 | 100 | 2.5 | 300 | 3.0 | - | BC550C |
| BC856 | PNP Low Noise | 80 | 65 | 5.0 | 15 | 30 | 75 | 800 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC556 |
| BC856A | PNP Low Noise | 80 | 65 | 5.0 | 15 | 30 | 125 | 250 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC556A |
| BC856B | PNP Low Noise | 80 | 65 | 5.0 | 15 | 30 | 220 | 475 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC556B |
| BC857 | PNP Low Noise | 50 | 45 | 5.0 | 15 | 30 | 75 | 800 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC557 |
| BC857A | PNP Low Noise | 50 | 45 | 5.0 | 15 | 30 | 125 | 250 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC557A |
| BC857B | PNP Low Noise | 50 | 45 | 5.0 | 15 | 30 | 220 | 475 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC557B |
| BC857C | PNP Low Noise | 50 | 45 | 5.0 | 15 | 30 | 420 | 800 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC557C |
| BC858 | PNP Low Noise | 30 | 30 | 5.0 | 15 | 30 | 75 | 800 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC558 |
| BC858A | PNP Low Noise | 30 | 30 | 5.0 | 15 | 30 | 125 | 250 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC558A |
| BC858B | PNP Low Noise | 30 | 30 | 5.0 | 15 | 30 | 220 | 475 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC558B |
| BC858C | PNP Low Noise | 30 | 30 | 5.0 | 15 | 30 | 420 | 800 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 10 | - | BC558C |
| BC859 | PNP Low Noise | 30 | 30 | 5.0 | 15 | 30 | 125 | 800 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 4.0 | - | BC559 |
| BC859A | PNP Low Noise | 30 | 30 | 5.0 | 15 | 30 | 125 | 250 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 4.0 | - | BC559A |
| BC859B | PNP Low Noise | 30 | 30 | 5.0 | 15 | 30 | 220 | 475 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 4.0 | - | BC559B |
| BC859C | PNP Low Noise | 30 | 30 | 5.0 | 15 | 30 | 420 | 800 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 4.0 | - | BC559C |
| BC860 | PNP Low Noise | 50 | 45 | 5.0 | 15 | 30 | 125 | 800 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 3.0 | - | BC560 |
| BC860A | PNP Low Noise | 50 | 45 | 5.0 | 15 | 30 | 125 | 250 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 3.0 | - | BC560A |
| BC860B | PNP Low Noise | 50 | 45 | 5.0 | 15 | 30 | 220 | 475 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 3.0 | - | BC560B |
| BC860C | PNP Low Noise | 50 | 45 | 5.0 | 15 | 30 | 420 | 800 | 5.0 | 2.0 | 0.65 | 100 | 4.5 | 150 | 3.0 | - | BC560C |
| BCF29 | PNP Low Noise | 32 | 32 | 5.0 | 100 | 32 | 120 | 260 | 5.0 | 2.0 | 0.30 | 10 | 4.5 | 150 | 4.0 | - | C7 |
| BCF30 | PNP Low Noise | 32 | 32 | 5.0 | 100 | 32 | 215 | 500 | 5.0 | 2.0 | 0.30 | 10 | 4.5 | 150 | 4.0 | - | C8 |
| BCF32 | NPN Low Noise | 32 | 32 | 5.0 | 100 | 32 | 200 | 450 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 4.0 | - | D7 |
| BCF33 | NPN Low Noise | 32 | 32 | 5.0 | 100 | 32 | 420 | 800 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 4.0 | - | D8 |
| BCF70 | PNP Low Noise | 50 | 45 | 5.0 | 100 | 20 | 215 | 500 | 5.0 | 2.0 | 0.30 | 10 | 4.5 | 150 | 4.0 | - | H7 |
| BCF81 | NPN Low Noise | 50 | 45 | 5.0 | 100 | 20 | 420 | 800 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 4.0 | - | K9 |
| BCV26 | PNP Darlington | 40 | 30 | 10 | 100 | 30 | 20000 | - | 5.0 | 100 | 1.0 | 100 | 3.5 | 220 | - | - | FD |
| BCV27 | NPN Darlington | 40 | 30 | 10 | 100 | 30 | 20000 | - | 5.0 | 100 | 1.0 | 100 | 3.5 | 220 | - | - | FF |
| BCV46 | PNP Darlington | 80 | 60 | 10 | 100 | 30 | 10000 | - | 5.0 | 100 | 1.0 | 100 | 3.5 | 220 | - | - | FE |
| BCV47 | NPN Darlington | 80 | 60 | 10 | 100 | 30 | 10000 | - | 5.0 | 100 | 1.0 | 100 | 3.5 | 220 | - | - | FG |
| BCV71 | NPN Low Noise | 80 | 60 | 5.0 | 100 | 20 | 110 | 220 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 10 | - | K7 |
| BCV72 | NPN Low Noise | 80 | 60 | 5.0 | 100 | 20 | 200 | 450 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 10 | - | K8 |
| BCW29 | PNP Low Noise | 32 | 32 | 5.0 | 100 | 32 | 120 | 260 | 5.0 | 2.0 | 0.30 | 10 | 4.5 | 150 | 10 | - | C1 |
| BCW30 | PNP Low Noise | 32 | 32 | 5.0 | 100 | 32 | 215 | 500 | 5.0 | 2.0 | 0.30 | 10 | 4.5 | 150 | 10 | - | C2 |
| BCW31 | NPN Low Noise | 32 | 32 | 5.0 | 100 | 32 | 110 | 220 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 10 | - | D1 |
| BCW32 | NPN Low Noise | 32 | 32 | 5.0 | 100 | 32 | 200 | 450 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 10 | - | D2 |
| BCW33 | NPN Low Noise | 32 | 32 | 5.0 | 100 | 32 | 420 | 800 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 10 | - | D3 |

*BV_{CEs}

Shaded areas indicate Darlington.



Transistors

SOT-23 Case Proelectron Series 350mW (Continued)

| TYPE NO. | DESCRIPTION | BV _{CBO} | BV _{CEO} | BV _{EBO} | I _{CBO} @ V _{CB} | | h _{FE} | | @ V _{CE} | | I _C | | V _{CE(SAT)} @I _C | C _{ob} | f _T | NF | t _{off} | MARK. CODE | SIMILAR LEADED DEVICES |
|----------|------------------|-------------------|-------------------|-------------------|------------------------------------|------------|-----------------|-----|-------------------|-------------|----------------|-------------|--------------------------------------|-----------------|----------------|-------------|------------------|------------|------------------------|
| | | (V) MIN | (V) MIN | (V) MIN | (nA) MAX | (V) MAX | MIN | MAX | (V) MIN | (mA) MAX | (V) MIN | (mA) MAX | (V) MAX | (pF) TYP | (MHz) TYP | (dB) MAX | (ns) MAX | | |
| BCW60 | NPN Low Noise | 32* | 32 | 5.0 | 20* | 32 | 120 | 630 | 5.0 | 2.0 | 0.55 | 50 | 2.5 | 250 | 6.0 | - | - | - | - |
| BCW60A | NPN Low Noise | 32* | 32 | 5.0 | 20* | 32 | 120 | 220 | 5.0 | 2.0 | 0.55 | 50 | 2.5 | 250 | 6.0 | - | - | AA | - |
| BCW60B | NPN Low Noise | 32* | 32 | 5.0 | 20* | 32 | 180 | 310 | 5.0 | 2.0 | 0.55 | 50 | 2.5 | 250 | 6.0 | - | - | AB | - |
| BCW60C | NPN Low Noise | 32* | 32 | 5.0 | 20* | 32 | 250 | 460 | 5.0 | 2.0 | 0.55 | 50 | 2.5 | 250 | 6.0 | - | - | AC | - |
| BCW60D | NPN Low Noise | 32* | 32 | 5.0 | 20* | 32 | 380 | 630 | 5.0 | 2.0 | 0.55 | 50 | 2.5 | 250 | 6.0 | - | - | AD | - |
| BCW61 | PNP Low Noise | 32* | 32 | 5.0 | 20* | 32 | 120 | 630 | 5.0 | 2.0 | 0.55 | 50 | 4.5 | 180 | 6.0 | - | - | - | - |
| BCW61A | PNP Low Noise | 32* | 32 | 5.0 | 20* | 32 | 120 | 220 | 5.0 | 2.0 | 0.55 | 50 | 4.5 | 180 | 6.0 | - | - | BA | - |
| BCW61B | PNP Low Noise | 32* | 32 | 5.0 | 20* | 32 | 180 | 310 | 5.0 | 2.0 | 0.55 | 50 | 4.5 | 180 | 6.0 | - | - | BB | - |
| BCW61C | PNP Low Noise | 32* | 32 | 5.0 | 20* | 32 | 250 | 460 | 5.0 | 2.0 | 0.55 | 50 | 4.5 | 180 | 6.0 | - | - | BC | - |
| BCW61D | PNP Low Noise | 32* | 32 | 5.0 | 20* | 32 | 380 | 630 | 5.0 | 2.0 | 0.55 | 50 | 4.5 | 180 | 6.0 | - | - | BD | - |
| BCW65 | NPN High Current | 60 | 32 | 5.0 | 20 | 32 | 100 | 630 | 1.0 | 100 | 0.70 | 500 | 6.0 | 170 | - | - | - | - | - |
| BCW65A | NPN High Current | 60 | 32 | 5.0 | 20 | 32 | 100 | 250 | 1.0 | 100 | 0.70 | 500 | 6.0 | 170 | - | - | - | EA | - |
| BCW65B | NPN High Current | 60 | 32 | 5.0 | 20 | 32 | 160 | 400 | 1.0 | 100 | 0.70 | 500 | 6.0 | 170 | - | - | - | EB | - |
| BCW65C | NPN High Current | 60 | 32 | 5.0 | 20 | 32 | 250 | 630 | 1.0 | 100 | 0.70 | 500 | 6.0 | 170 | - | - | - | EC | - |
| BCW66 | NPN High Current | 75 | 45 | 5.0 | 20 | 45 | 100 | 630 | 1.0 | 100 | 0.70 | 500 | 6.0 | 170 | - | - | - | - | - |
| BCW66F | NPN High Current | 75 | 45 | 5.0 | 20 | 45 | 100 | 250 | 1.0 | 100 | 0.70 | 500 | 6.0 | 170 | - | - | - | EF | - |
| BCW66G | NPN High Current | 75 | 45 | 5.0 | 20 | 45 | 160 | 400 | 1.0 | 100 | 0.70 | 500 | 6.0 | 170 | - | - | - | EG | - |
| BCW66H | NPN High Current | 75 | 45 | 5.0 | 20 | 45 | 250 | 630 | 1.0 | 100 | 0.70 | 500 | 6.0 | 170 | - | - | - | EH | - |
| BCW67 | PNP High Current | 45 | 32 | 5.0 | 20 | 32 | 100 | 630 | 1.0 | 100 | 0.70 | 500 | 6.0 | 200 | - | - | - | - | - |
| BCW67A | PNP High Current | 45 | 32 | 5.0 | 20 | 32 | 100 | 250 | 1.0 | 100 | 0.70 | 500 | 6.0 | 200 | - | - | - | DA | - |
| BCW67B | PNP High Current | 45 | 32 | 5.0 | 20 | 32 | 160 | 400 | 1.0 | 100 | 0.70 | 500 | 6.0 | 200 | - | - | - | DB | - |
| BCW67C | PNP High Current | 45 | 32 | 5.0 | 20 | 32 | 250 | 630 | 1.0 | 100 | 0.70 | 500 | 6.0 | 200 | - | - | - | DC | - |
| BCW68 | PNP High Current | 60 | 45 | 5.0 | 20 | 45 | 100 | 630 | 1.0 | 100 | 0.70 | 500 | 6.0 | 200 | - | - | - | - | - |
| BCW68F | PNP High Current | 60 | 45 | 5.0 | 20 | 45 | 100 | 250 | 1.0 | 100 | 0.70 | 500 | 6.0 | 200 | - | - | - | DF | - |
| BCW68G | PNP High Current | 60 | 45 | 5.0 | 20 | 45 | 160 | 400 | 1.0 | 100 | 0.70 | 500 | 6.0 | 200 | - | - | - | DG | - |
| BCW68H | PNP High Current | 60 | 45 | 5.0 | 20 | 45 | 250 | 630 | 1.0 | 100 | 0.70 | 500 | 6.0 | 200 | - | - | - | DH | - |
| BCW69 | PNP Low Noise | 50 | 45 | 5.0 | 100 | 20 | 120 | 260 | 5.0 | 2.0 | 0.30 | 10 | 4.5 | 150 | 10 | - | - | H1 | - |
| BCW70 | PNP Low Noise | 50 | 45 | 5.0 | 100 | 20 | 215 | 500 | 5.0 | 2.0 | 0.30 | 10 | 4.5 | 150 | 10 | - | - | H2 | - |
| BCW71 | NPN Low Noise | 50 | 45 | 5.0 | 100 | 20 | 110 | 220 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 10 | - | - | K1 | - |
| BCW72 | NPN Low Noise | 50 | 45 | 5.0 | 100 | 20 | 200 | 450 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 10 | - | - | K2 | - |
| BCW81 | NPN Low Noise | 50 | 45 | 5.0 | 100 | 20 | 420 | 800 | 5.0 | 2.0 | 0.25 | 10 | 2.5 | 300 | 10 | - | - | K3 | - |
| BCW89 | PNP Low Noise | 80 | 60 | 5.0 | 100 | 20 | 120 | 260 | 5.0 | 2.0 | 0.30 | 10 | 4.5 | 150 | 10 | - | - | H3 | - |
| BCX17 | PNP High Current | 50* | 45 | 5.0 | 100 | 20 | 100 | 600 | 1.0 | 100 | 0.62 | 500 | 8.0 | 100 | - | - | - | T1 | - |
| BCX18 | PNP High Current | 30* | 25 | 5.0 | 100 | 20 | 100 | 600 | 1.0 | 100 | 0.62 | 500 | 8.0 | 100 | - | - | - | T2 | - |
| BCX19 | NPN High Current | 50* | 45 | 5.0 | 100 | 20 | 100 | 600 | 1.0 | 100 | 0.62 | 500 | 5.0 | 200 | - | - | - | U1 | - |
| BCX20 | NPN High Current | 30* | 25 | 5.0 | 100 | 20 | 100 | 600 | 1.0 | 100 | 0.62 | 500 | 5.0 | 200 | - | - | - | U2 | - |
| BCX70 | NPN Low Noise | 45* | 45 | 5.0 | 20* | 45 | 120 | 630 | 5.0 | 2.0 | 0.55 | 50 | 2.5 | 250 | 6.0 | - | - | - | - |
| BCX70G | NPN Low Noise | 45* | 45 | 5.0 | 20* | 45 | 120 | 220 | 5.0 | 2.0 | 0.55 | 50 | 2.5 | 250 | 6.0 | - | - | AG | - |
| BCX70H | NPN Low Noise | 45* | 45 | 5.0 | 20* | 45 | 180 | 310 | 5.0 | 2.0 | 0.55 | 50 | 2.5 | 250 | 6.0 | - | - | AH | - |
| BCX70J | NPN Low Noise | 45* | 45 | 5.0 | 20* | 45 | 250 | 460 | 5.0 | 2.0 | 0.55 | 50 | 2.5 | 250 | 6.0 | - | - | AJ | - |
| BCX70K | NPN Low Noise | 45* | 45 | 5.0 | 20* | 45 | 380 | 630 | 5.0 | 2.0 | 0.55 | 50 | 2.5 | 250 | 6.0 | - | - | AK | - |
| BCX71 | PNP Low Noise | 45* | 45 | 5.0 | 20* | 45 | 120 | 630 | 5.0 | 2.0 | 0.55 | 50 | 4.5 | 180 | 6.0 | - | - | - | - |
| BCX71G | PNP Low Noise | 45* | 45 | 5.0 | 20* | 45 | 120 | 220 | 5.0 | 2.0 | 0.55 | 50 | 4.5 | 180 | 6.0 | - | - | BG | - |
| BCX71H | PNP Low Noise | 45* | 45 | 5.0 | 20* | 45 | 180 | 310 | 5.0 | 2.0 | 0.55 | 50 | 4.5 | 180 | 6.0 | - | - | BH | - |
| BCX71J | PNP Low Noise | 45* | 45 | 5.0 | 20* | 45 | 250 | 460 | 5.0 | 2.0 | 0.55 | 50 | 4.5 | 180 | 6.0 | - | - | BJ | - |
| BCX71K | PNP Low Noise | 45* | 45 | 5.0 | 20* | 45 | 380 | 630 | 5.0 | 2.0 | 0.55 | 50 | 4.5 | 180 | 6.0 | - | - | BK | - |
| BSR13 | NPN AMPL/Switch | 60 | 30 | 5.0 | 30 | 50 | 100 | 300 | 10 | 150 | 1.60 | 500 | 80* | 250* | - | 285 | - | U7 | 2N2222A |
| BSR14 | NPN AMPL/Switch | 75 | 40 | 6.0 | 10 | 60 | 100 | 300 | 10 | 150 | 1.00 | 500 | 80* | 300* | - | 285 | - | U8 | 2N2222A |
| BSR15 | PNP AMPL/Switch | 60 | 40 | 5.0 | 20 | 50 | 100 | 300 | 10 | 150 | 1.60 | 500 | 80* | 200* | - | 100 | - | T7 | 2N2907A |
| BSR16 | PNP AMPL/Switch | 60 | 60 | 5.0 | 10 | 50 | 100 | 300 | 10 | 150 | 1.60 | 500 | 80* | 200* | - | 100 | - | T8 | 2N2907A |
| BSR17 | NPN AMPL/Switch | 60 | 40 | 6.0 | 50† | 30 | 50 | 150 | 1.0 | 10 | 0.30 | 50 | 40* | 250* | - | 225 | - | U9 | - |
| BSR17A | NPN AMPL/Switch | 60 | 40 | 6.0 | 50† | 30 | 100 | 300 | 1.0 | 10 | 0.30 | 50 | 40* | 300* | - | 250 | - | U92 | - |
| BSV52 | NPN Sat Switch | 20 | 12 | 5.0 | 100 | 10 | 40 | 120 | 1.0 | 10 | 0.40 | 50 | 40* | 500 | - | 18 | - | B2 | 2N2369A |

*BV_{CES}

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