

# 4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION  
(2) fab & (3) TYPE No.

| LINE No. | TYPE No. | 1 MAX. COLL. DISS. @ 25°C (W) | 2 DERATE IN FREE AIR W/°C | T M A M P X | ABS MAX RATINGS @ 25°C |                |           |                | TYPICAL h PARAMETERS |                |        |                |            |                |              |      |    |      | Cob (F) | STRUC-TURE | DWG #/s/a TO200 Ser | # L C O A D E |
|----------|----------|-------------------------------|---------------------------|-------------|------------------------|----------------|-----------|----------------|----------------------|----------------|--------|----------------|------------|----------------|--------------|------|----|------|---------|------------|---------------------|---------------|
|          |          |                               |                           |             | BVcbo (V)              | BVceo (V)      | BVebo (V) | Ic (A)         | Icbo @ MAX Vcb (A)   | Vcb (V)        | Ie (A) | hfe            | hoe (mhos) | hie (Ω)        | hre (X.0001) |      |    |      |         |            |                     |               |
|          |          |                               |                           |             | BIAS                   | COMMON EMITTER | BIAS      | COMMON EMITTER | BIAS                 | COMMON EMITTER | BIAS   | COMMON EMITTER | BIAS       | COMMON EMITTER |              |      |    |      |         |            |                     |               |
| 1#       | BC178C   | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 40n                  | 5.0            | 2.0m   | 500            | 18u        | 1.6kΔ          | 1.5          | 4.5p | PE | PLT  | TO18    | A          |                     |               |
| 2#       | BC178P   | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 40n                  | 5.0            | 2.0m   | 120            | 18u        | 2.7k           | 1.5          | 4.5p | PE | PLT  | TO18    | A          |                     |               |
| 3#       | BC178PA  | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 40n                  | 5.0            | 2.0m   | 170            | 18u        | 2.7k           | 1.5          | 4.5p | PE | PLT  | B68     | A          |                     |               |
| 4#       | BC178PAK | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 170            | 18u        | 2.7k           | 1.5          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 5#       | BC178PAL | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 170            | 18u        | 2.7k           | 1.5          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 6#       | BC178PAM | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 170            | 18u        | 2.7k           | 1.5          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 7#       | BC178PB  | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 35u        | 4.5k           | 2.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 8#       | BC178PBK | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 35u        | 4.5k           | 2.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 9#       | BC178PBL | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 35u        | 4.5k           | 2.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 10#      | BC178PBM | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 35u        | 4.5k           | 2.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 11#      | BC178PC  | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 12#      | BC178PCK | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 13#      | BC178PCL | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 14#      | BC178PCM | 300m                          | 130M                      | 2.0m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 15#      | BC179B#  | 300m                          | 130M                      | 2.0m        | 30                     | 20             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 530            | 30u        | 4.5k           | 2.0          | 4.5p | PE | PLT  | TO18    | A          |                     |               |
| 16#      | BC179C   | 300m                          | 130M                      | 2.0m        | 30                     | 20             | 5.0       | 50m            | 40n                  | 5.0            | 2.0m   | 500            | 35u        | 4.5k           | 2.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 17#      | BC179PB  | 300m                          | 130M                      | 2.0m        | 30                     | 20             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 290            | 35u        | 4.5k           | 2.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 18#      | BC179PBK | 300m                          | 130M                      | 2.0m        | 30                     | 20             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 290            | 35u        | 4.5k           | 2.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 19#      | BC179PBL | 300m                          | 130M                      | 2.0m        | 30                     | 20             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 290            | 35u        | 4.5k           | 2.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 20#      | BC179PBM | 300m                          | 130M                      | 2.0m        | 30                     | 20             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 290            | 35u        | 4.5k           | 2.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 21#      | BC179PC  | 300m                          | 130M                      | 2.0m        | 30                     | 20             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 22#      | BC179PCK | 300m                          | 130M                      | 2.0m        | 30                     | 20             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 23#      | BC179PCL | 300m                          | 130M                      | 2.0m        | 30                     | 20             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 24#      | BC179PCM | 300m                          | 130M                      | 2.0m        | 30                     | 20             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 4.5p | PE | PLT  | B58     | A          |                     |               |
| 25#      | BC257    | 300m                          | 130M                      | 2.2m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 250            | 50u        | 4.5k           | 3.0          | 7.0p | PE | TO92 | B       |            |                     |               |
| 26#      | BC257A   | 300m                          | 130M                      | 2.4m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 180            | 25u        | 2.7k           | 3.0          | 7.0p | PE | TO92 | D       |            |                     |               |
| 27#      | BC257B   | 300m                          | 130M                      | 2.4m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 35u        | 4.5k           | 3.5          | 6.0p | PE | TO92 | D       |            |                     |               |
| 28#      | BC257VI  | 300m                          | 130M                      | 2.4m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 100            | 20u        | 1.2k           | 2.5          | 7.0p | PE | TO92 | B       |            |                     |               |
| 29#      | BC258    | 300m                          | 130M                      | 2.2m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 180            | 25u        | 2.7k           | 3.0          | 7.0p | PE | TO92 | B       |            |                     |               |
| 30#      | BC258A   | 300m                          | 130M                      | 2.4m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 180            | 25u        | 2.7k           | 3.0          | 7.0p | PE | TO92 | B       |            |                     |               |
| 31#      | BC258B   | 300m                          | 130M                      | 2.4m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 300            | 35u        | 4.5k           | 3.5          | 7.0p | PE | TO92 | B       |            |                     |               |
| 32#      | BC258C   | 300m                          | 130M                      | 2.4m        | 30                     | 25             | 5.0       | 100m           | 40n                  | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 7.0p | PE | TO92 | B       |            |                     |               |
| 33#      | BC258VI  | 300m                          | 130M                      | 2.4m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 100            | 20u        | 1.2k           | 2.5          | 7.0p | PE | TO92 | B       |            |                     |               |
| 34#      | BC259    | 300m                          | 130M                      | 2.2m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 500            | 70u        | 8.0k           | 3.5          | 7.0p | PE | TO92 | B       |            |                     |               |
| 35#      | BC259A   | 300m                          | 130M                      | 2.4m        | 30                     | 25             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 180            | 25u        | 2.7k           | 3.0          | 7.0p | PE | TO92 | B       |            |                     |               |
| 36#      | BC259B   | 300m                          | 130M                      | 2.4m        | 30                     | 25             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 300            | 35u        | 4.5k           | 3.5          | 7.0p | PE | TO92 | B       |            |                     |               |
| 37#      | BC262    | 300m                          | 130M                      | 2.0m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 125            | 25u        | 2.7k           | 3.0          | 7.0p | PE | TO92 | B       |            |                     |               |
| 38#      | BC307#   | 300m                          | 130M                      | 2.2m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 222            | 25u        | 2.7k           | 1.5          | 7.0p | PE | TO92 | A       |            |                     |               |
| 39#      | BC307A   | 300m                          | 130M                      | 2.4m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 180            | 18u        | 2.7k           | 1.5          | 7.0p | PE | TO92 | A       |            |                     |               |
| 40#      | BC307B   | 300m                          | 130M                      | 2.4m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 30u        | 4.5k           | 2.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 41#      | BC307C   | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 15n                  | 5.0            | 2.0m   | 600            | 110u       | 8.7k           | 3.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 42#      | BC307PA  | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 170            | 18u        | 2.7k           | 1.5          | 6.0p | PE | TO92 | A       |            |                     |               |
| 43#      | BC307PAK | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 170            | 18u        | 2.7k           | 1.5          | 6.0p | PE | TO92 | A       |            |                     |               |
| 44#      | BC307PAL | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 170            | 18u        | 2.7k           | 1.5          | 6.0p | PE | TO92 | A       |            |                     |               |
| 45#      | BC307PAM | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 170            | 18u        | 2.7k           | 1.5          | 6.0p | PE | TO92 | A       |            |                     |               |
| 46#      | BC307PB  | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 30u        | 4.5k           | 2.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 47#      | BC307PBK | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 30u        | 4.5k           | 2.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 48#      | BC307PBL | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 30u        | 4.5k           | 2.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 49#      | BC307PBM | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 30u        | 4.5k           | 2.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 50#      | BC307PC  | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 51#      | BC307VI  | 300m                          | 130M                      | 2.4m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 100            | 20u        | 1.2k           | 2.5          | 7.0p | PE | TO92 | A       |            |                     |               |
| 52#      | BC308#   | 300m                          | 130M                      | 2.2m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 222            | 25u        | 2.7k           | 3.0          | 7.0p | PE | TO92 | A       |            |                     |               |
| 53#      | BC308A   | 300m                          | 130M                      | 2.4m        | 30                     | 25             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 54#      | BC308PA  | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 170            | 18u        | 2.7k           | 1.5          | 6.0p | PE | TO92 | A       |            |                     |               |
| 55#      | BC308PB  | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 30u        | 4.5k           | 2.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 56#      | BC308PBK | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 30u        | 4.5k           | 2.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 57#      | BC308PBL | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 30u        | 4.5k           | 2.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 58#      | BC308PBM | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 290            | 30u        | 4.5k           | 2.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 59#      | BC308PC  | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 100m           | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 60#      | BC308VI  | 300m                          | 130M                      | 2.4m        | 30                     | 25             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 100            | 20u        | 1.2k           | 2.5          | 7.0p | PE | TO92 | A       |            |                     |               |
| 61#      | BC309#   | 300m                          | 130M                      | 2.4m        | 30                     | 20             | 5.0       | 50m            | 100n                 | 5.0            | 2.0m   | 500            | 60u        | 8.7k           | 3.0          | 6.0p | PE | TO92 | A       |            |                     |               |
| 62#      | BC309A   | 300m                          | 130M                      | 2.3m        | 30                     | 45             | 5.0       | 50             |                      |                |        |                |            |                |              |      |    |      |         |            |                     |               |