



2SC1815-O
2SC1815-Y
2SC1815-GR
2SC1815-BL

Features

- 2SC1815 is NPN Silicon Epitaxial Transistor Designed for RF, AF Amplifier and General Purpose Applications.
- Capable of 0.4Watts of Power Dissipation.
- Collector-current 0.15A
- Collector-base Voltage 60V
- Marking : C1815
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Operating and storage junction temperature range:-55°C to +125°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Units |
|--------|-----------|-----|-----|-------|
|--------|-----------|-----|-----|-------|

OFF CHARACTERISTICS

| | | | | |
|---------------|---|----|-----|---------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage* ($I_C=0.1mA$, $I_E=0$) | 50 | | Vdc |
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage ($I_C=100\mu A$, $I_E=0$) | 60 | | Vdc |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage ($I_E=100\mu A$, $I_C=0$) | 5 | | Vdc |
| I_{CBO} | Collector Cutoff Current ($V_{CB}=60Vdc$, $I_E=0Adc$) | | 0.1 | μA |
| I_{CEO} | Collector Cutoff Current ($V_{CB}=50Vdc$, $I_E=0Adc$) | | 0.1 | μA |
| I_{EBO} | Emitter Cutoff Current ($V_{EB}=5.0Vdc$, $I_C=0Adc$) | | 0.1 | μA |

ON CHARACTERISTICS

| | | | | |
|---------------|--|-----|------|-----|
| $h_{FE(1)}$ | DC Current Gain* ($I_C=2.0mA$, $V_{CE}=6.0Vdc$) | 70 | 700 | |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage ($I_C=100mA$, $I_E=10mA$) | | 0.25 | Vdc |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage ($I_C=100mA$, $I_E=10mA$) | | 1.0 | Vdc |
| V_{BE} | Base-Emitter Voltage ($I_E=310mA$) | --- | 1.45 | Vdc |

SMALL-SIGNAL CHARACTERISTICS

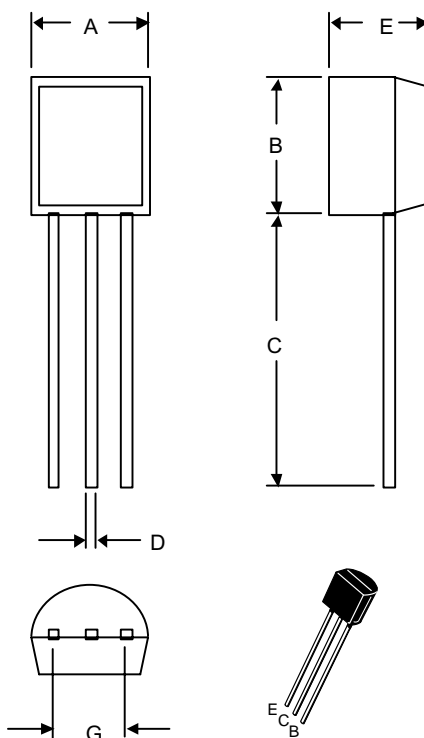
| | | | | |
|-------|--|----|--|-----|
| f_T | Transistor Frequency ($I_C=1.0mA$, $V_{CE}=10Vdc$, $f=30MHz$) | 80 | | MHz |
|-------|--|----|--|-----|

CLASSIFICATION OF $h_{FE(1)}$

| | | | | |
|-------|--------|---------|---------|---------|
| Rank | O | Y | GR | BL |
| Range | 70-140 | 120-240 | 200-400 | 350-700 |

NPN Silicon Epitaxial Transistor

TO-92



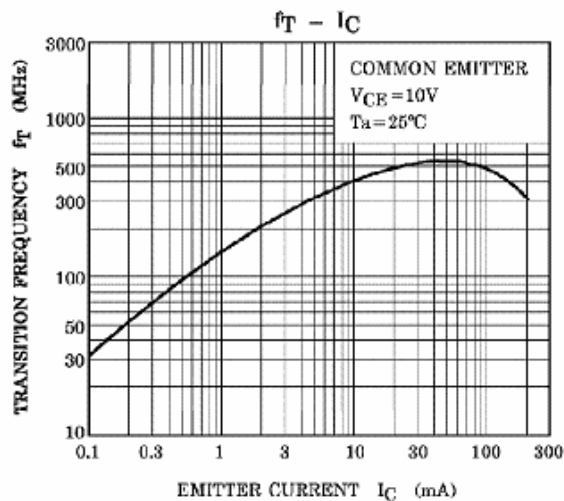
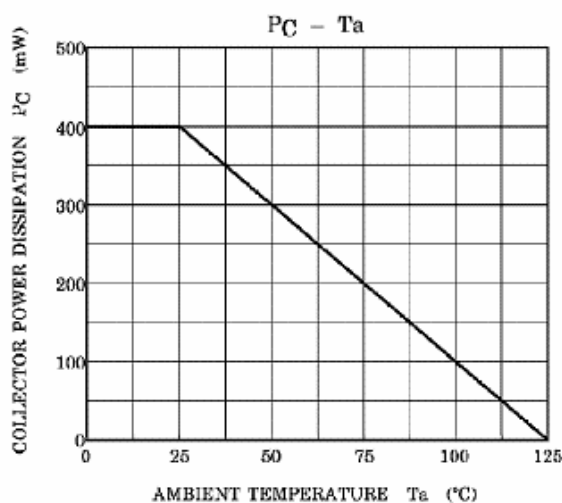
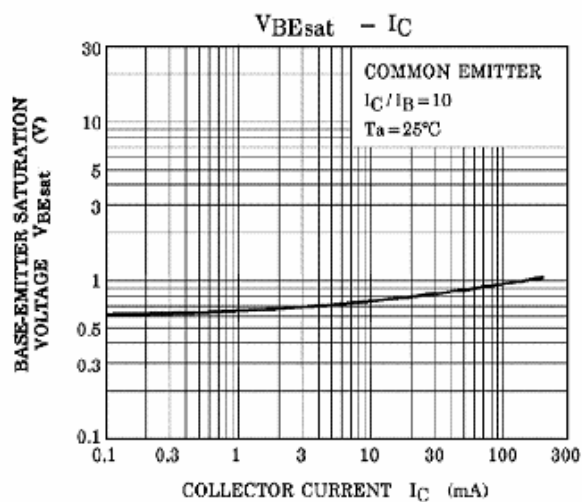
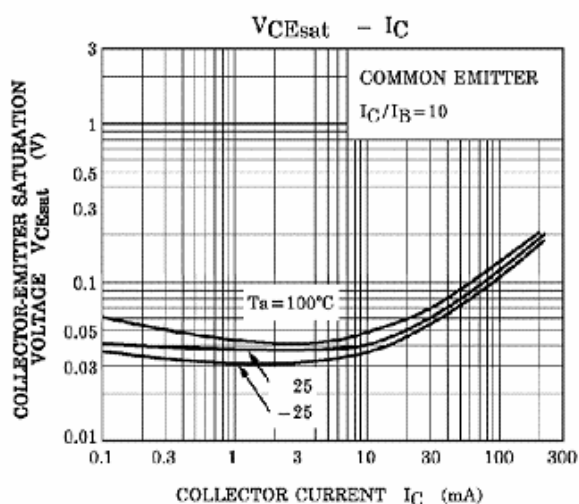
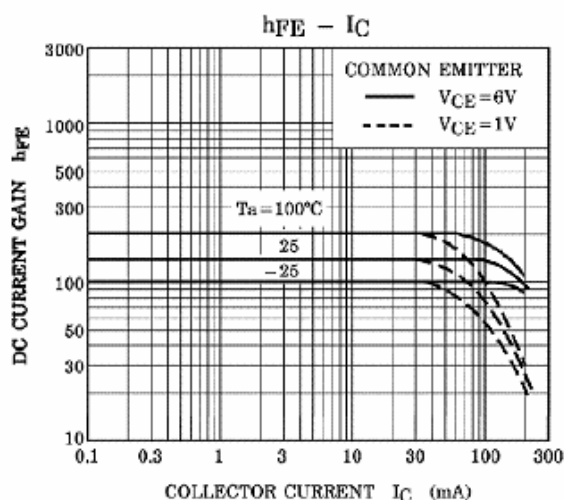
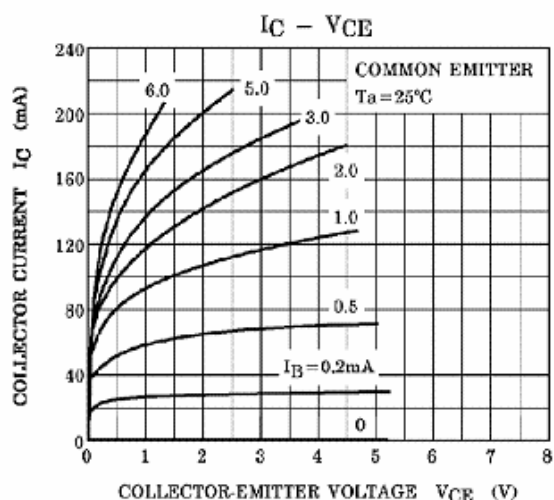
| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | .170 | .190 | 4.33 | 4.83 | |
| B | .170 | .190 | 4.30 | 4.83 | |
| C | .550 | .590 | 13.97 | 14.97 | |
| D | .010 | .020 | 0.36 | 0.56 | |
| E | .130 | .160 | 3.30 | 3.96 | |
| G | .010 | .104 | 2.44 | 2.64 | |

2SC1815

Typical Characteristics

M.C.C.

Micro Commercial Components



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Ordering Information :

| Device | Packing |
|----------------|------------------------------|
| Part Number-AP | Ammo Packing: 2Kpcs/Ammo Box |
| Part Number-BP | Bulk: 100Kpcs/Carton |

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