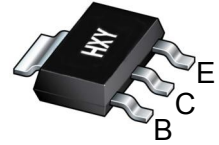




FEATURES

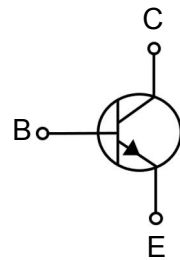
- Collector Current: $I_C=1A$
- Power Dissipation of 1.5w



SOT-223

Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|---------|---------|----------|
| BCP54 | SOT-223 | BCP54 | 1000 |
| BCP55 | SOT-223 | BCP55 | 1000 |
| BCP56 | SOT-223 | BCP56 | 1000 |



MAXIMUM RATINGS (Ta=25 unless otherwise noted)

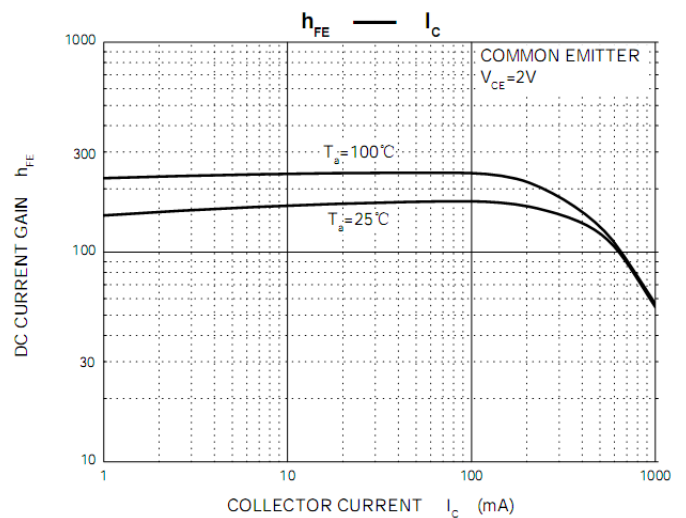
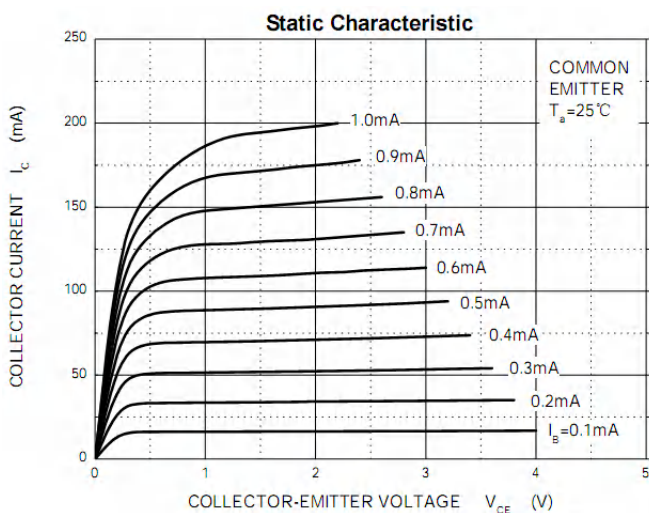
| Parameter | Symbol | Limit | Unit |
|---|-----------------|--------------|---------------|
| Collector-Base Voltage | V_{CBO} | BCP54 45 | V |
| | | BCP55 60 | |
| | | BCP56 100 | |
| Collector-Emitter Voltage | V_{CEO} | BCP54 45 | V |
| | | BCP55 60 | |
| | | BCP56 80 | |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 1 | A |
| Collector Power Dissipation | P_C | 1.5 | W |
| Thermal Resistance From Junction To Ambient | $R_{\theta JA}$ | 83.3 | $^{\circ}C/W$ |
| Junction Temperature | T_j | 150 | $^{\circ}C$ |
| Storage Temperature | T_{stg} | -55~+150 | $^{\circ}C$ |

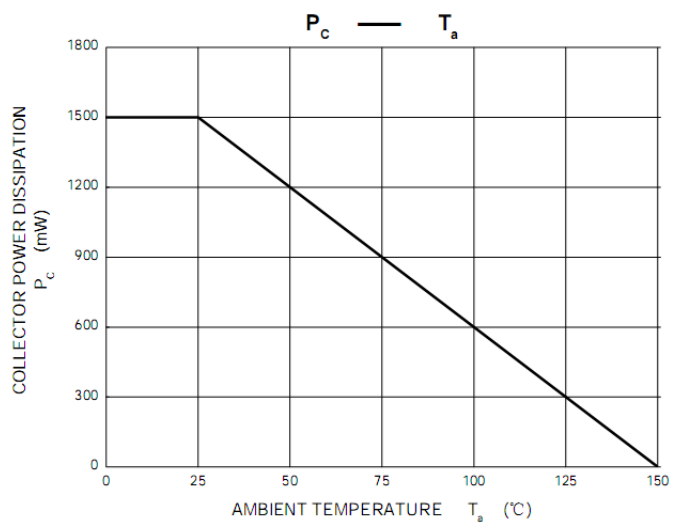
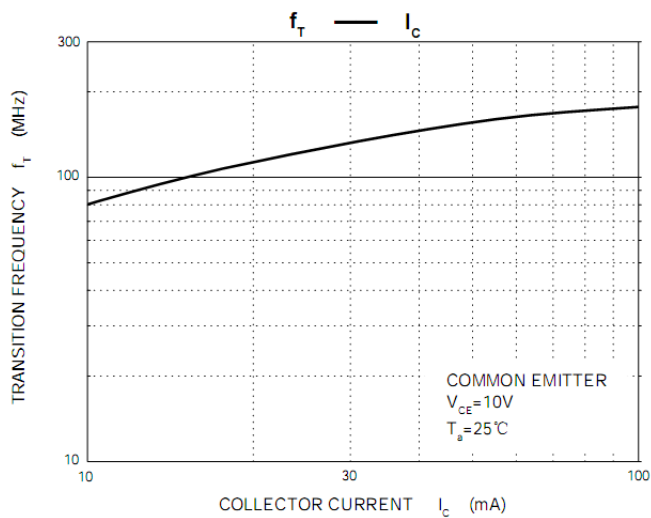
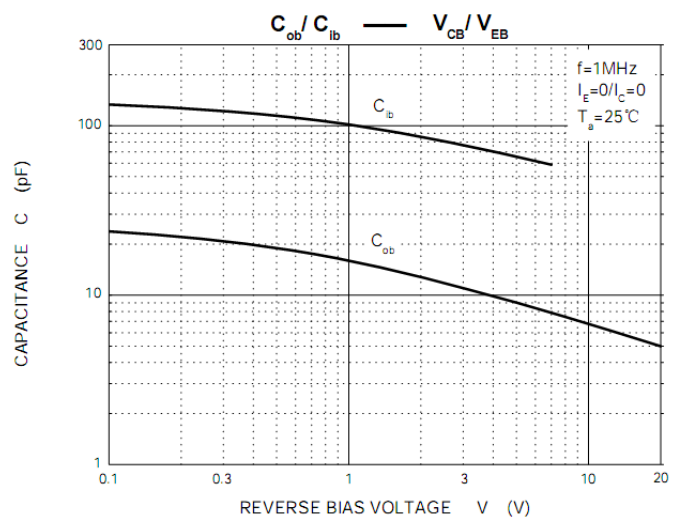
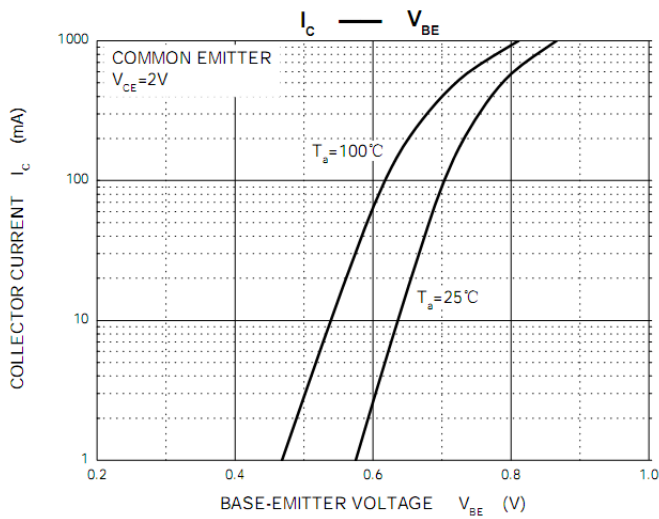
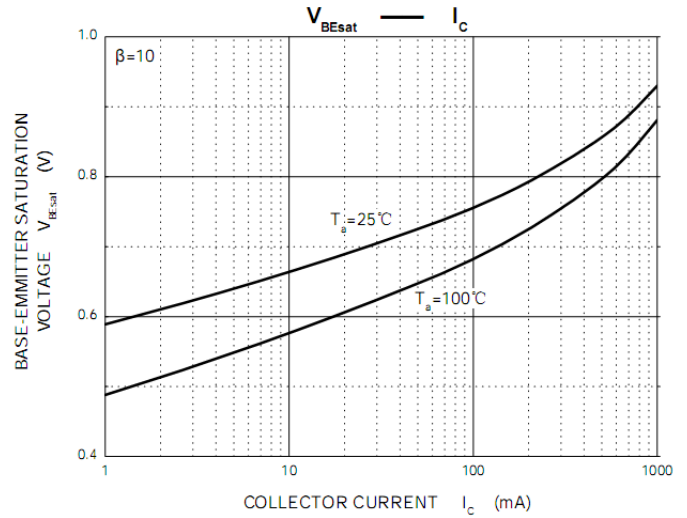
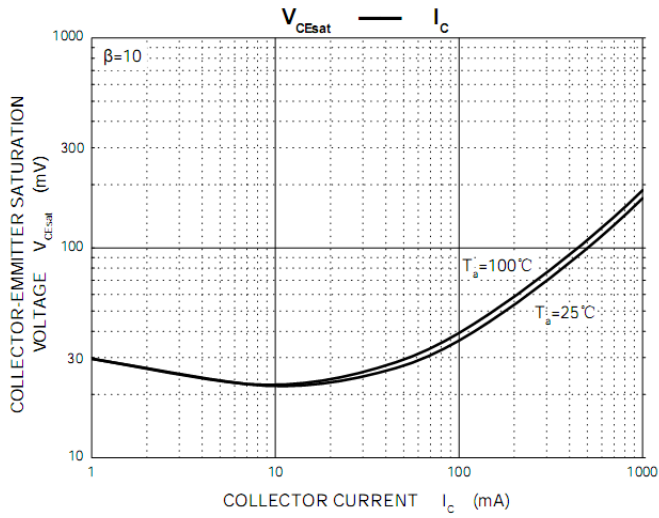


ELECTRICAL CHARACTERISTICS $T_a=25^\circ\text{C}$ unless otherwise specified

| Parameter | Symbol | Test conditions | Min | Max | Unit |
|--------------------------------------|---------------|---|-----|-----|------|
| Collector-base breakdown voltage | BCP54 | $I_C=0.1\text{mA}, I_E=0$ | 45 | | V |
| | BCP55 | | 60 | | |
| | BCP56 | | 100 | | |
| Collector-emitter breakdown voltage | BCP54 | $I_C=10\text{mA}, I_B=0$ | 45 | | V |
| | BCP55 | | 60 | | |
| | BCP56 | | 80 | | |
| Base-emitter breakdown voltage | $V_{(BR)EBO}$ | $I_E=10\mu\text{A}, I_C=0$ | 5 | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=30\text{V}, I_E=0$ | | 100 | nA |
| DC current gain | $h_{FE(1)}$ | $V_{CE}=2\text{V}, I_C=5\text{mA}$ | 25 | | |
| | $h_{FE(2)}$ | $V_{CE}=2\text{V}, I_C=150\text{mA}$ | 63 | 250 | |
| | $h_{FE(3)}$ | $V_{CE}=2\text{V}, I_C=500\text{mA}$ | 25 | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=500\text{mA}, I_B=50\text{mA}$ | | 0.5 | V |
| Base-emitter voltage | V_{BE} | $V_{CE}=2\text{V}, I_C=500\text{mA}$ | | 1 | V |
| Transition frequency | f_T | $V_{CE}=10\text{V}, I_C=50\text{mA}, f=100\text{MHz}$ | 100 | | MHz |

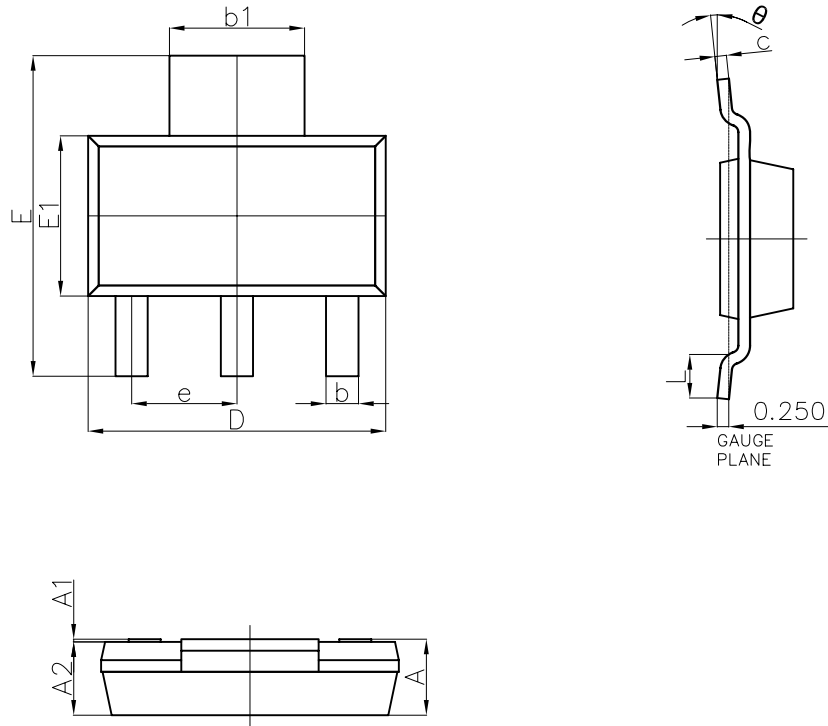
Typical Characteristics







SOT-223 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | — | 1.800 | — | 0.071 |
| A1 | 0.020 | 0.100 | 0.001 | 0.004 |
| A2 | 1.500 | 1.700 | 0.059 | 0.067 |
| b | 0.660 | 0.840 | 0.026 | 0.033 |
| b1 | 2.900 | 3.100 | 0.114 | 0.122 |
| c | 0.230 | 0.350 | 0.009 | 0.014 |
| D | 6.300 | 6.700 | 0.248 | 0.264 |
| E | 6.700 | 7.300 | 0.264 | 0.287 |
| E1 | 3.300 | 3.700 | 0.130 | 0.146 |
| e | 2.300(BSC) | | 0.091(BSC) | |
| L | 0.750 | — | 0.030 | — |
| theta | 0° | 10° | 0° | 10° |



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