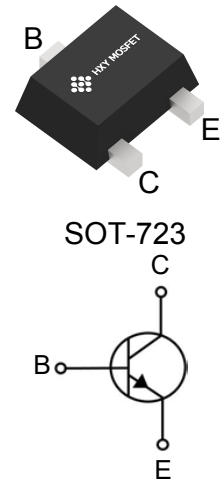




Features

Collector Power Dissipation: 100mW

Collector Current: $I_C = 150\text{mA}$



Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|------------|---------|----------|----------|
| H2SC5658 | SOT-723 | BQ/BR/BS | 8000 |

Maximum Ratings ($T_a=25^\circ\text{C}$ unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|----------------|--|-----------------|------------------|
| V_{CBO} | Collector-Base Voltage | 60 | V |
| V_{CEO} | Collector-Emitter Voltage | 50 | V |
| V_{EBO} | Emitter-Base Voltage | 7 | V |
| I_C | Collector Current | 150 | mA |
| P_C | Collector Power Dissipation | 100 | mW |
| T_J, T_{stg} | Operation Junction And Storage Temperature Range | $-55 \sim +150$ | $^\circ\text{C}$ |

Electrical Characteristics ($T_a=25^\circ\text{C}$ unless otherwise specified)

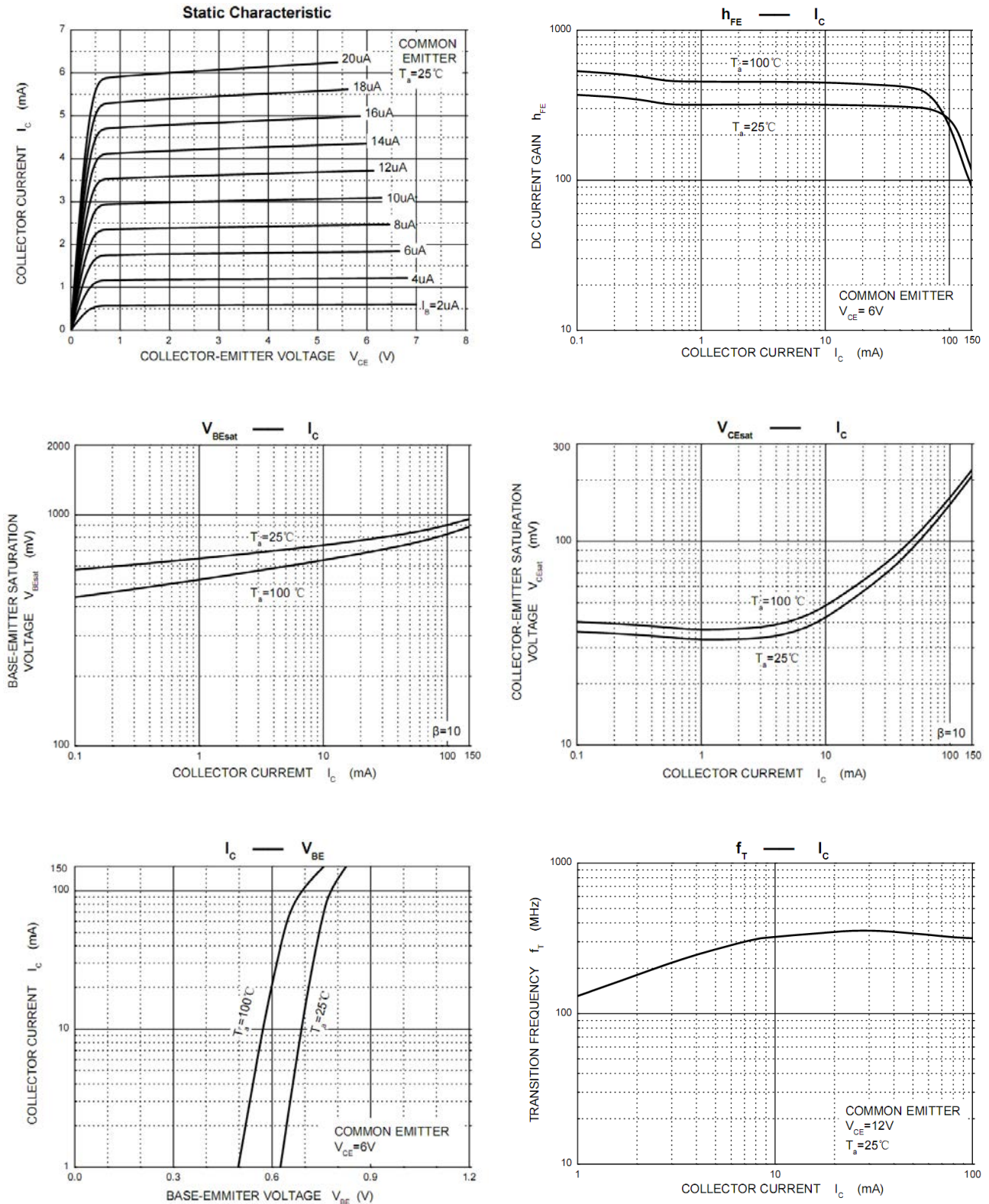
| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|-----|-----|-----|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=50\mu\text{A}, I_E=0$ | 60 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=1\text{mA}, I_B=0$ | 50 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=50\mu\text{A}, I_C=0$ | 7 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=60\text{V}, I_E=0$ | | | 0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=7\text{V}, I_C=0$ | | | 0.1 | μA |
| DC current transfer ratio | h_{FE} | $V_{CE}=6\text{V}, I_C=1\text{mA}$ | 120 | | 560 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=50\text{mA}, I_B=5\text{mA}$ | | | 0.4 | V |
| Transition frequency | f_T | $V_{CE}=12\text{V}, I_C=2\text{mA}, f=100\text{MHz}$ | | 180 | | MHz |
| Output capacitance | C_{ob} | $V_{CB}=12\text{V}, I_E=0, f=1\text{MHz}$ | | | 3.5 | pF |

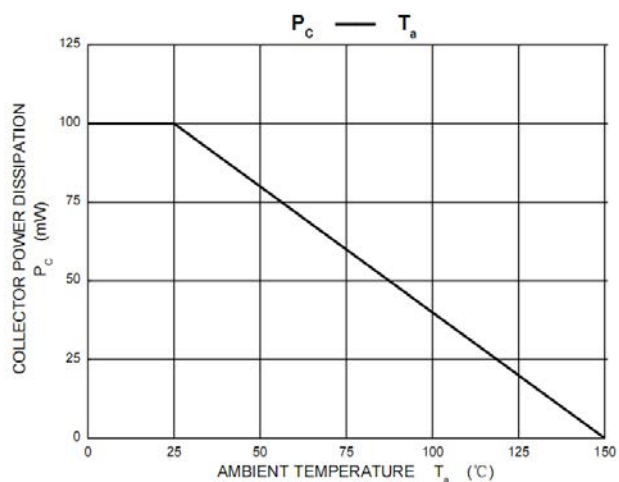
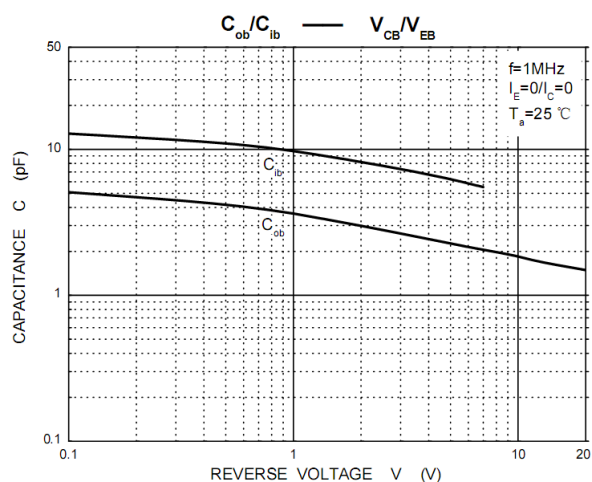
Classification Of h_{FE}

| Rank | H2SC5658T2LQ | H2SC5658T2LR | H2SC5658T2LS |
|---------|--------------|--------------|--------------|
| Range | 120-270 | 180-390 | 270-560 |
| Marking | BQ | BR | BS |

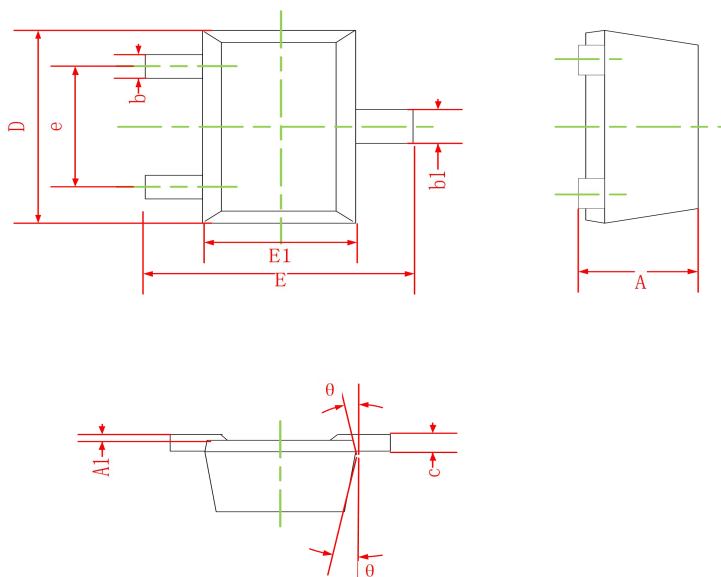


Typical Characteristics





SOT-23 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | |
|----------|---------------------------|-------|
| | Min. | Max. |
| A | 0.430 | 0.500 |
| A1 | 0.000 | 0.050 |
| b | 0.170 | 0.270 |
| b1 | 0.270 | 0.370 |
| c | 0.080 | 0.150 |
| D | 1.150 | 1.250 |
| E | 1.150 | 1.250 |
| E1 | 0.750 | 0.850 |
| e | 0.800TYP. | |
| θ | 7° REF. | |



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