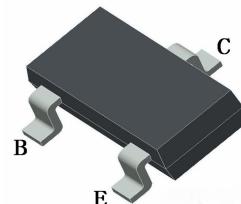
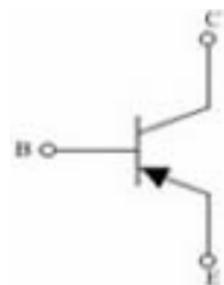


**FEATURE**

- Complementary to S9014

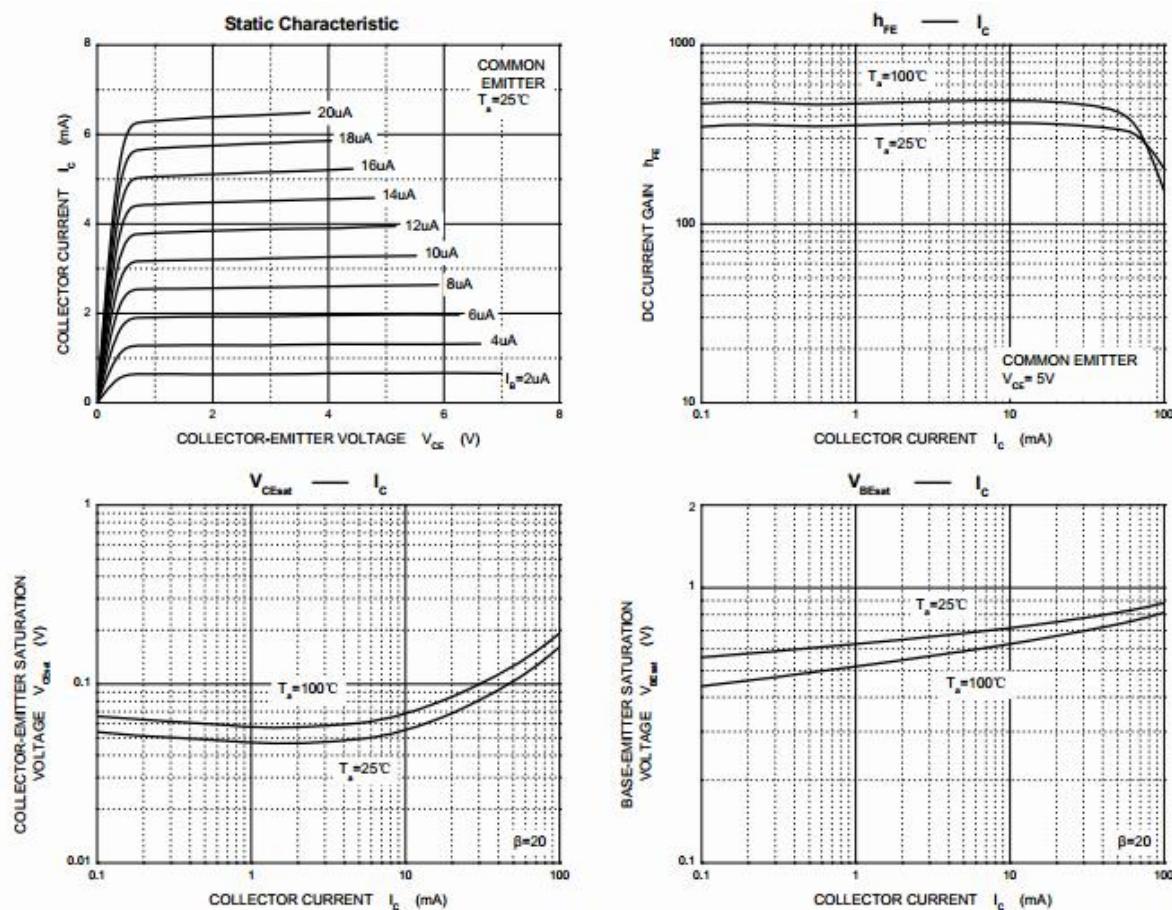
**SOT-23****MARKING: M6****Equivalent Circuit****MAXIMUM RATINGS (TA=25°C unless otherwise noted)**

| Symbol           | Parameter                 | Value   | Unit |
|------------------|---------------------------|---------|------|
| V <sub>CBO</sub> | Collector-Base Voltage    | -50     | V    |
| V <sub>CEO</sub> | Collector-Emitter Voltage | -45     | V    |
| V <sub>EBO</sub> | Emitter-Base Voltage      | -5      | V    |
| I <sub>CM</sub>  | Collector Current         | -0.1    | A    |
| P <sub>D</sub>   | Power Dissipation         | 0.45    | W    |
| T <sub>J</sub>   | Junction Temperature      | 150     | °C   |
| T <sub>stg</sub> | Storage Temperature       | -55~150 | °C   |

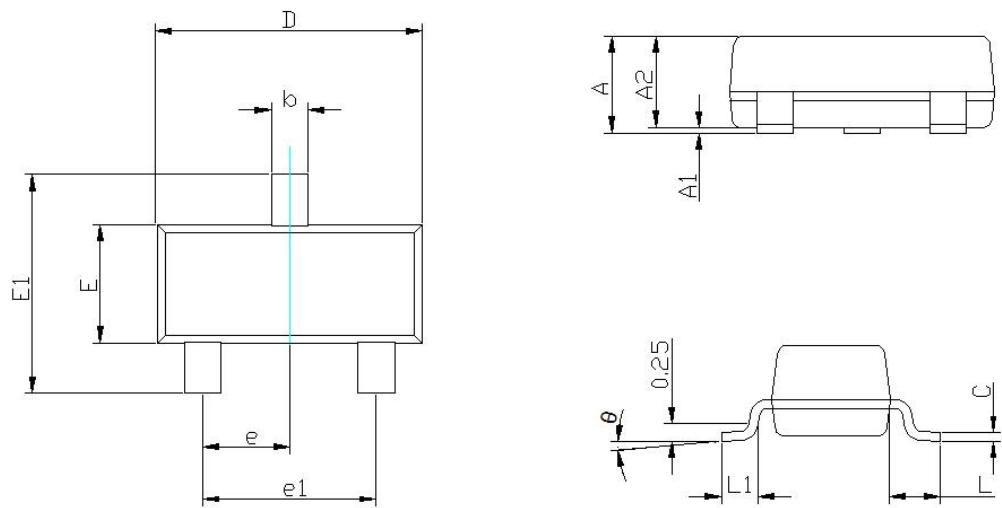
ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$  unless otherwise specified)

| Symbol                       | Parameter                            | Test conditions  | Min | Max  | Unit          |
|------------------------------|--------------------------------------|--|-----|------|---------------|
| $\text{BV}_{\text{EBO}}$     | Emitter-base breakdown voltage       | $I_E=-100\mu\text{A}, I_C=0$                                     | -5  |      | V             |
| $\text{BV}_{\text{CBO}}$     | Collector-base breakdown voltage     | $I_C=-100\mu\text{A}, I_E=0$                                     | -50 |      | V             |
| $\text{BV}_{\text{CEO}}$     | Collector-emitter breakdown voltage  | $I_C=-100\mu\text{A}, I_B=0$                                     | -45 |      | V             |
| $I_{\text{EBO}}$             | Emitter cut-off current              | $V_{\text{EB}}=-5\text{V}, I_C=0$                                |     | -0.1 | $\mu\text{A}$ |
| $I_{\text{CBO}}$             | Collector cut-off current            | $V_{\text{CB}}=-50\text{V}, I_E=0$                               |     | -0.1 | $\mu\text{A}$ |
| $I_{\text{CEO}}$             | Collector cut-off current            | $V_{\text{CE}}=-45\text{V}, I_B=0$                               |     | -0.1 | $\mu\text{A}$ |
| $V_{\text{CE}_{\text{SAT}}}$ | Collector-emitter saturation voltage | $I_C=-100\text{mA}, I_B=-5\text{mA}$                             |     | -0.3 | V             |
| $V_{\text{BE}_{\text{SAT}}}$ | Base-emitter saturation voltage      | $I_C=-100\text{mA}, I_B=-5\text{mA}$                             |     | -1.1 | V             |
| $h_{\text{fe}}$              | DC current gain                      | $V_{\text{CE}}=-5\text{V}, I_C=-1\text{mA}$                      | 300 | 400  |               |
| $f_T$                        | Transition frequency                 | $V_{\text{CE}}=-5\text{V}, I_C=-10\text{mA}$<br>$F=30\text{MHz}$ | 150 |      | MHZ           |

## Typical Characteristics



## SOT-23 Package Outline Dimensions



| SYMBOL | MILLIMETERTS       |       | INCHES                 |       |
|--------|--------------------|-------|------------------------|-------|
|        | MIN                | MAX   | MIN                    | MAX   |
| A      | 0.900              | 1.15  | 0.035                  | 0.045 |
| A1     | 0.000              | 0.125 | 0.000                  | 0.005 |
| A2     | 0.900              | 1.050 | 0.035                  | 0.041 |
| b      | 0.300              | 0.500 | 0.012                  | 0.020 |
| c      | 0.080              | 0.150 | 0.003                  | 0.006 |
| D      | 2.800              | 3.000 | 0.110                  | 0.118 |
| E      | 1.200              | 1.400 | 0.047                  | 0.055 |
| E1     | 2.250              | 2.550 | 0.089                  | 0.100 |
| e      | 0.950TYP           |       | 0.037TYP               |       |
| e1     | 1.800              | 2.000 | 0.071                  | 0.079 |
| L      | 0.550REF (0.4-0.6) |       | 0.022REF (0.016-0.024) |       |
| L1     | 0.300              | 0.500 | 0.012                  | 0.020 |
| θ      | 0°                 | 8°    | 0°                     | 8°    |