



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SOT23 NPN SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

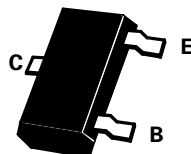
FMMT455

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FEATURES

- * 140 Volt V_{CE0}
- * 1 Amp continuous current
- * P_{tot} = 500 mW

PARTMARKING DETAIL – 455



SOT23

ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|----------------|-------------|------------------|
| Collector-Base Voltage | V_{CBO} | 160 | V |
| Collector-Emitter Voltage | V_{CEO} | 140 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Peak Pulse Current | I_{CM} | 2 | A |
| Continuous Collector Current | I_C | 1 | A |
| Base Current | I_B | 200 | mA |
| Power Dissipation at $T_{amb}=25^\circ\text{C}$ | P_{tot} | 500 | mW |
| Operating and Storage Temperature Range | $T_j; T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$).

| PARAMETER | SYMBOL | MIN. | MAX. | UNIT | CONDITIONS. |
|---------------------------------------|----------------|---------------|------|---------------|---|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | 160 | | V | $I_C=100\mu\text{A}$ |
| Collector-Emitter Sustaining Voltage | $V_{CEO(sus)}$ | 140 | | V | $I_C=10\text{mA}^*$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | 5 | | V | $I_E=100\mu\text{A}$ |
| Collector Cut-Off Current | I_{CBO} | | 0.1 | μA | $V_{CB}=140\text{V}$ |
| Emitter Cut-Off Current | I_{EBO} | | 0.1 | μA | $V_{EB}=4\text{V}$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | 0.7 | V | $I_C=150\text{mA}$, $I_B=15\text{mA}$ |
| Static Forward Current Transfer Ratio | h_{FE} | 100 10 Typ | 300 | | $I_C=150\text{mA}$, $V_{CE}=10\text{V}^*$ $I_C=1\text{A}$, $V_{CE}=10\text{V}^*$ |
| Transition Frequency | f_T | 100 | | MHz | $I_C=50\text{mA}$, $V_{CE}=10\text{V}$ $f=100\text{MHz}$ |
| Output Capacitance | C_{obo} | | 15 | pF | $V_{CB}=10\text{V}$, $f=1\text{MHz}$ |

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
Spice parameter data is available upon request for this device

TYPICAL CHARACTERISTICS

