

SOT23 NPN SILICON PLANAR MEDIUM POWER DARLINGTON TRANSISTORS

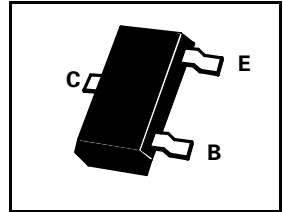
FMMT38A
FMMT38B
FMMT38C

ISSUE 3 – AUGUST 1996

FEATURES

- * 60 Volt V_{CEO}
- * Gain of 10K at $I_C=0.5$ Amp

PARTMARKING DETAILS – FMMT38A – 4J
 FMMT38B – 5J
 FMMT38C – 7J



ABSOLUTE MAXIMUM RATINGS.

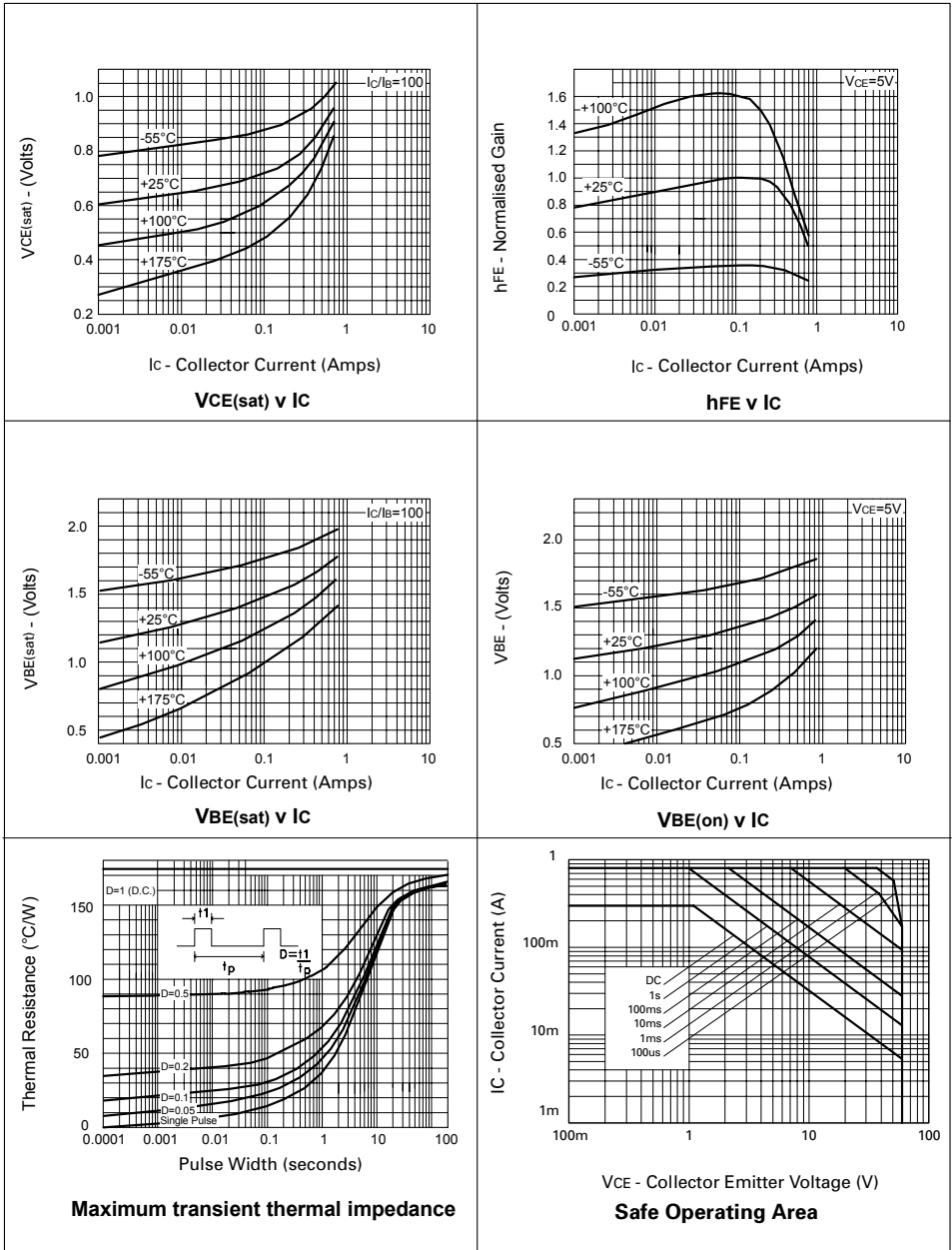
| PARAMETER | SYMBOL | VALUE | UNIT |
|--|----------------|-------------|-------------|
| Collector-Base Voltage | V_{CBO} | 80 | V |
| Collector-Emitter Voltage | V_{CEO} | 60 | V |
| Emitter-Base Voltage | V_{EBO} | 10 | V |
| Peak Pulse Current | I_{CM} | 800 | mA |
| Continuous Collector Current | I_C | 300 | mA |
| Power Dissipation at $T_{amb}=25^{\circ}C$ | P_{tot} | 330 | mW |
| Operating and Storage Temperature Range | $T_j; T_{stg}$ | -55 to +150 | $^{\circ}C$ |

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

| PARAMETER | SYMBOL | MIN. | MAX. | UNIT | CONDITIONS. |
|---------------------------------------|----------------|----------|---------------|------|--|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | 80 | | V | $I_C=10\mu A, I_E=0$ |
| Collector-Emitter Sustaining Voltage | $V_{CEO(sus)}$ | 60 | | V | $I_C=10mA, I_B=0$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | 10 | | V | $I_E=10\mu A, I_C=0$ |
| Collector Cut-Off Current | I_{CBO} | | 100 | nA | $V_{CB}=60V, I_E=0$ |
| Emitter Cut-Off Current | I_{EBO} | | 100 | nA | $V_{EB}=8V, I_C=0$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | 1.25 | V | $I_C=800mA, I_B=8mA^*$ |
| Base-Emitter Turn-on Voltage | $V_{BE(on)}$ | | 1.8 | V | $I_C=800mA, V_{CE}=5V^*$ |
| Static Forward Current Transfer Ratio | FMMT38A | h_{FE} | 500 1000 | | $I_C=100mA, V_{CE}=5V^*$ $I_C=500mA, V_{CE}=5V^*$ |
| | FMMT38B | | 2000 4000 | | $I_C=100mA, V_{CE}=5V^*$ $I_C=500mA, V_{CE}=5V^*$ |
| | FMMT38C | | 5000 10000 | | $I_C=100mA, V_{CE}=5V^*$ $I_C=500mA, V_{CE}=5V^*$ |

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

TYPICAL CHARACTERISTICS



This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.