

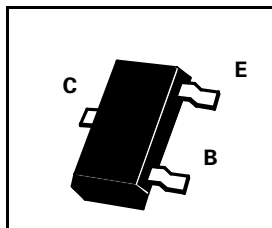
SOT23 NPN SILICON PLANAR HIGH VOLTAGE TRANSISTORS

FMMT5550 FMMT5551

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PARTMARKING DETAILS - FMMT5550 – 1FZ
FMMT5551 – ZG1

COMPLEMENTARY TYPES - FMMT5550 – FMMT5400
FMMT5551 – FMMT5401



ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | FMMT5550 | FMMT5551 | UNIT |
|--|----------------|-------------|----------|-------------|
| Collector-Base Voltage | V_{CBO} | 160 | 180 | V |
| Collector-Emitter Voltage | V_{CEO} | 140 | 160 | V |
| Emitter-Base Voltage | V_{EBO} | 6 | 6 | V |
| Continuous Collector Current | I_C | 600 | 600 | mA |
| Power Dissipation at $T_{amb}=25^{\circ}C$ | P_{tot} | 330 | 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 | FMMT5550 | | FMMT5551 | | UNIT | CONDITIONS. |
|---------------------------------------|---------------|----------------|--------------|----------------|--------------|---------------------------|--|
| | | MIN. | MAX. | MIN. | MAX. | | |
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | 160 | | 180 | | V | $I_C=100\mu A$ |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | 140 | | 160 | | V | $I_C=1mA$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | 6 | | 6 | | V | $I_E=10\mu A^*$ |
| Collector Cut-Off Current | I_{CBO} | | 100 100 | | | nA μA 50 50 | $V_{CB}=100V$ $V_{CB}=100V, T_A=100^{\circ}C$ $V_{CB}=120V$ $V_{CB}=120V, T_A=100^{\circ}C$ |
| Static Forward Current Transfer Ratio | h_{FE} | 60 60 20 | 250 | 80 80 30 | 250 | | $I_C=1mA, V_{CE}=5V$ $I_C=10mA, V_{CE}=5V$ $I_C=50mA, V_{CE}=5V$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | 0.15 0.25 | | 0.15 0.20 | V V | $I_C=10mA, I_B=1mA$ $I_C=50mA, I_B=5mA$ |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | | 1.0 1.2 | | 1.0 1.2 | V V | $I_C=10mA, I_B=1mA$ $I_C=50mA, I_B=5mA$ |
| Transition Frequency | f_T | 100 | 300 | 100 | 300 | MHz | $I_C=10mA, V_{CE}=10V$ $f=100MHz$ |
| Output Capacitance | C_{obo} | | 6.0 | | 6.0 | pF | $V_{CB}=10V, f=1MHz$ |
| Small Signal | h_{fe} | 50 | 200 | 50 | 260 | | $I_C=1mA, V_{CE}=10V$ $f=1KHz$ † |
| Noise Figure | NF | | 10 | | 8 | dB | $I_C=250\mu A, V_{CE}=5V,$ $R_S=1K\Omega$ $f=10Hz$ to $15.7KHz$ |

† Periodic Sample Test Only