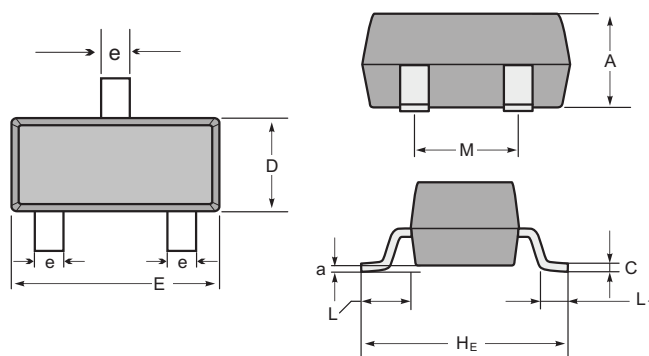
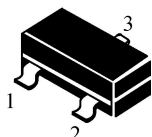


■ Features 特点

**NPN Low equivalent on-resistance 低等效电阻**

**SOT-23**

1. BASE
2. EMITTER
3. COLLECTOR



SOT-23 mechanical data

| UNIT |     | A   | C    | D   | E   | H <sub>E</sub> | e   | M    | L          | L <sub>1</sub> | a    |
|------|-----|-----|------|-----|-----|----------------|-----|------|------------|----------------|------|
| mm   | max | 1.1 | 0.15 | 1.4 | 3.0 | 2.6            | 0.5 | 1.95 | 0.55 (ref) | 0.36 (ref)     | 0.0  |
|      | min | 0.9 | 0.08 | 1.2 | 2.8 | 2.2            | 0.3 | 1.7  |            |                | 0.15 |
| mil  | max | 43  | 6    | 55  | 118 | 102            | 20  | 77   | 22 (ref)   | 14 (ref)       | 0.0  |
|      | min | 35  | 3    | 47  | 110 | 87             | 12  | 67   |            |                | 6    |

■ Absolute Maximum Ratings 最大额定值

| Characteristic 特性参数                      | Symbol 符号                             | Rat 额定值     | Unit 单位 |
|------------------------------------------|---------------------------------------|-------------|---------|
| Collector-Base Voltage 集电极基极电压           | V <sub>CBO</sub>                      | 50          | V       |
| Collector-Emitter Voltage 集电极发射极电压       | V <sub>CEO</sub>                      | 50          | V       |
| Emitter-Base Voltage 发射极基极电压             | V <sub>EBO</sub>                      | 5           | V       |
| Collector Current 集电极电流                  | I <sub>C</sub>                        | 2000        | mA      |
| Power dissipation 耗散功率                   | P <sub>C</sub> (T <sub>a</sub> =25°C) | 250         | mW      |
| Thermal Resistance Junction-Ambient 热阻   | R <sub>θJA</sub>                      | 500         | °C/W    |
| Junction and Storage Temperature 结温和储藏温度 | T <sub>J</sub> , T <sub>stg</sub>     | -55to+150°C |         |

# FMMT619

## ■Electrical Characteristics 电特性

( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

| Characteristic<br>特性参数                                                                                                                            | Symbol<br>符号  | Min<br>最小值 | Type<br>典型值 | Max<br>最大值   | Unit<br>单位    |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|-------------|--------------|---------------|
| Collector-Base Breakdown Voltage<br>集电极基极击穿电压( $I_C=100\mu\text{A}$ , $I_E=0$ )                                                                   | $BV_{CBO}$    | 50         | —           | —            | V             |
| Collector-Emitter Breakdown Voltage<br>集电极发射极击穿电压( $I_C=10\text{mA}$ , $I_B=0$ )                                                                  | $BV_{CEO}$    | 50         | —           | —            | V             |
| Emitter-Base Breakdown Voltage<br>发射极基极击穿电压( $I_E=100\mu\text{A}$ , $I_C=0$ )                                                                     | $BV_{EBO}$    | 5          | —           | —            | V             |
| Collector-Base Leakage Current<br>集电极基极漏电流( $V_{CB}=30\text{V}$ , $I_E=0$ )                                                                       | $I_{CBO}$     | —          | —           | 1            | $\mu\text{A}$ |
| Collector-Emitter Leakage Current<br>集电极发射极漏电流( $V_{CE}=30\text{V}$ , $V_{BE}=-0.5\text{V}$ )                                                     | $I_{CEX}$     | —          | —           | 1            | $\mu\text{A}$ |
| Emitter-Base Leakage Current<br>发射极基极漏电流( $V_{EB}=5\text{V}$ , $I_C=0$ )                                                                          | $I_{EBO}$     | —          | —           | 1            | $\mu\text{A}$ |
| DC Current Gain( $V_{CE}=2\text{V}$ , $I_C=200\text{mA}$ )<br>直流电流增益( $V_{CE}=2\text{V}$ , $I_C=2000\text{mA}$ )                                  | $H_{FE}$      | 300<br>150 | —           | 500          |               |
| Collector-Emitter Saturation Voltage<br>集电极发射极饱和压降<br>( $I_C=1500\text{mA}$ , $I_B=50\text{mA}$ )<br>( $I_C=2500\text{mA}$ , $I_B=150\text{mA}$ ) | $V_{CE(sat)}$ | —          | —           | 0.25<br>0.35 | V             |
| Base-Emitter Saturation Voltage<br>基极发射极饱和压降<br>( $I_C=2000\text{mA}$ , $I_B=100\text{mA}$ )                                                      | $V_{BE(sat)}$ | —          | —           | 1.1          | V             |
| Transition Frequency<br>特征频率( $V_{CE}=10\text{V}$ , $I_C=50\text{mA}$ )                                                                           | $f_T$         | 150        | —           | —            | MHz           |

## RATING AND CHARACTERISTIC CURVES (FMMT619)

