

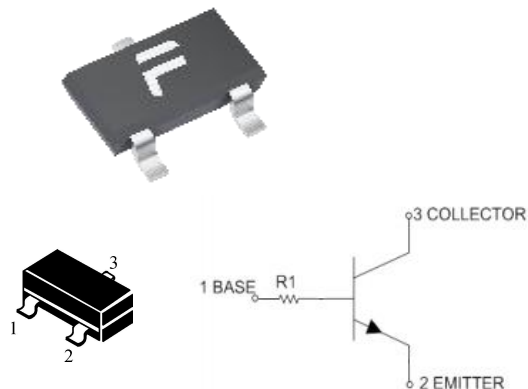
## SOT-23 Digital Transistor 数字晶体管

### ■ Features 特点

NPN With Bias Resistor Network  
带偏置电阻

SOT-23

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



### ■ 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              | $V_{CBO}$                     | 50                           | V                           |
| Collector-Emitter Voltage 集电极发射极电压          | $V_{CEO}$                     | 50                           | V                           |
| Collector Current 集电极电流                     | $I_C$                         | 100                          | mA                          |
| Power dissipation 耗散功率                      | $P_C(T_a=25^{\circ}\text{C})$ | 246                          | mW                          |
| Thermal Resistance Junction-Ambient 热阻      | $R_{\theta JA}$               | 508                          | $^{\circ}\text{C}/\text{W}$ |
| Junction and Storage Temperature<br>结温和储藏温度 | $T_J, T_{stg}$                | -55to+150 $^{\circ}\text{C}$ |                             |

### ■ Device Marking 产品打标

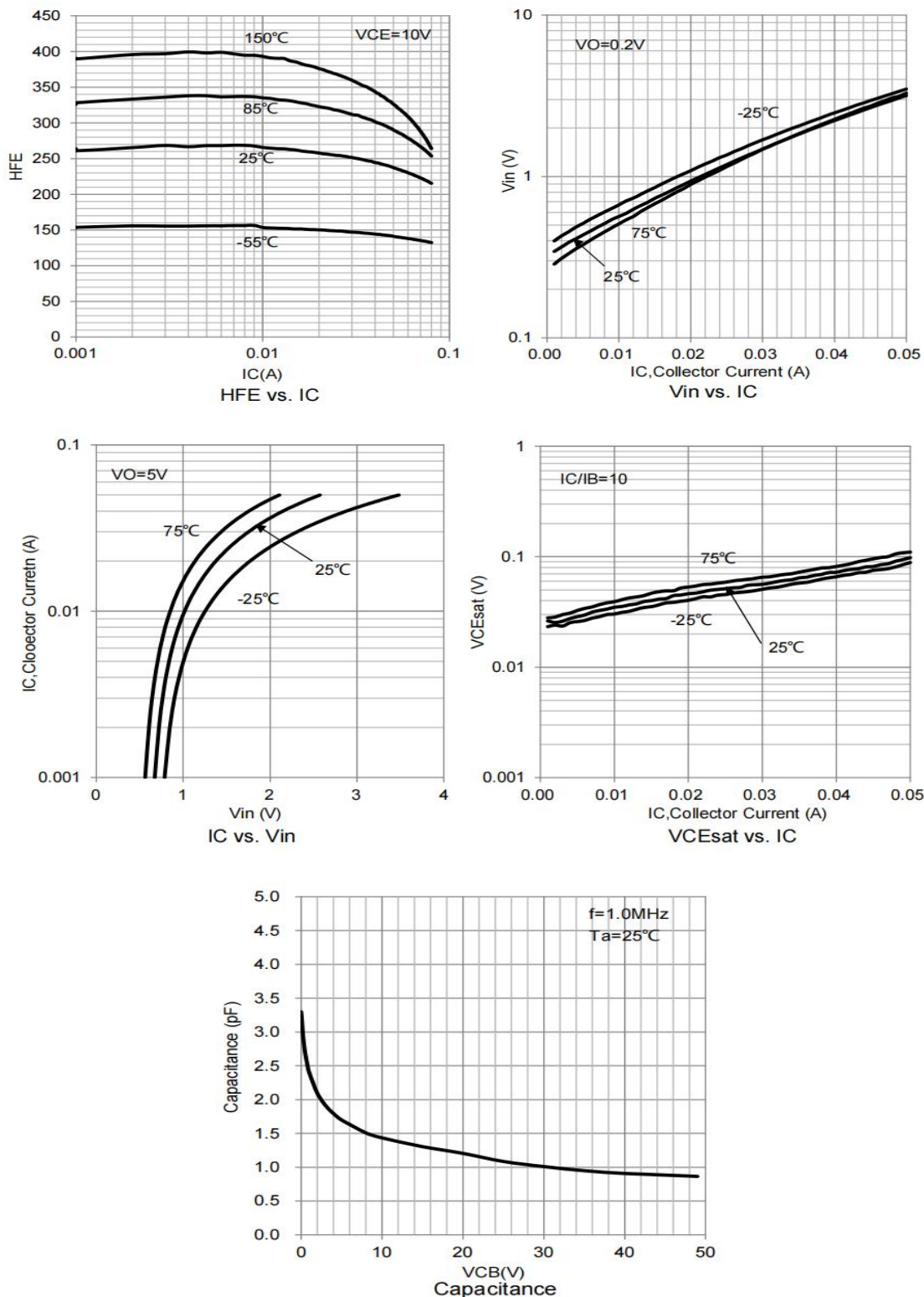
MMUN2215L=A8E

**■Electrical Characteristics 电特性**

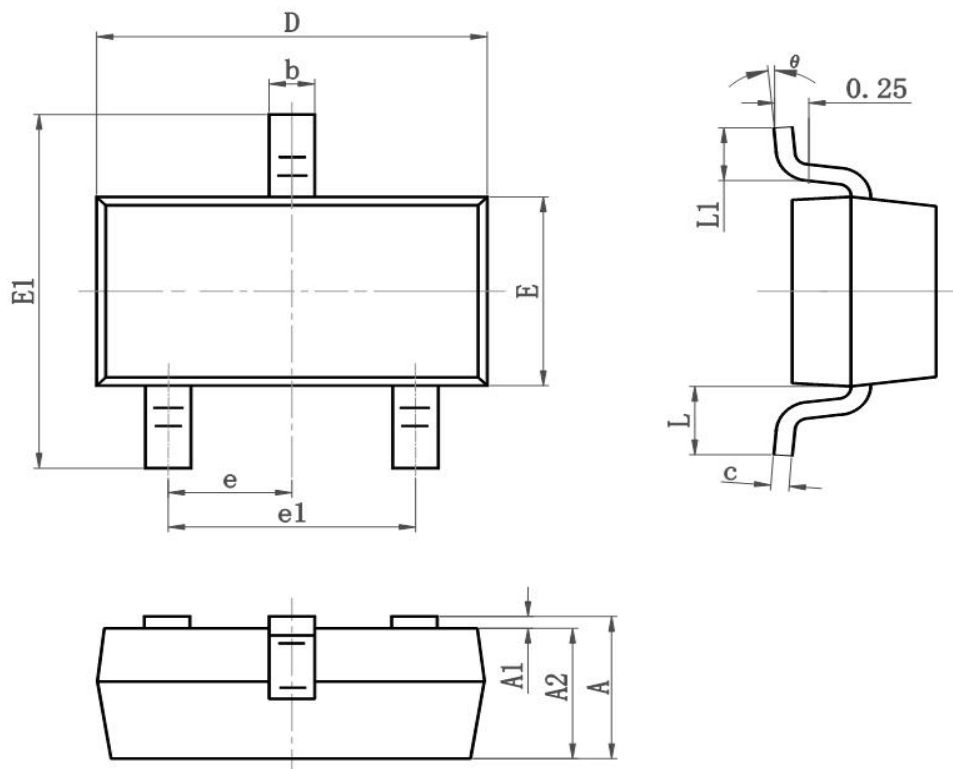
(TA=25℃ unless otherwise noted 如无特殊说明, 温度为 25℃)

| 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<br>(IC=10uA, IE=0)                                             | BV <sub>CBO</sub>    | 50         | —           | —          | V          |
| Collector-Emitter Breakdown Voltage<br>集电极发射极击穿电压<br>(IC=2mA, IB=0)                                          | BV <sub>CEO</sub>    | 50         | —           | —          | V          |
| Collector-Base Leakage Current<br>集电极基极漏电流<br>(V <sub>CB</sub> =50V, IE=0)                                   | IC <sub>B0</sub>     | —          | —           | 50         | nA         |
| Collector-Emitter Leakage Current<br>集电极发射极漏电流<br>(V <sub>CE</sub> =50V, IE=0)                               | IC <sub>EO</sub>     | —          | —           | 50         | nA         |
| Emitter-Base Leakage Current<br>发射极基极漏电流<br>(V <sub>EB</sub> =6V, IC=0)                                      | IE <sub>B0</sub>     | —          | —           | 0.9        | mA         |
| DC Current Gain<br>直流电流增益<br>(V <sub>CE</sub> =10V, IC=5mA)                                                  | H <sub>FE</sub>      | 160        | 350         | —          |            |
| Collector-Emitter Saturation Voltage<br>集电极发射极饱和压降<br>(IC=10mA, IB=1mA)                                      | V <sub>CE(sat)</sub> | —          | —           | 0.25       | V          |
| Output Voltage (on)<br>输出电压(导通)<br>(V <sub>CC</sub> = 5.0 V, V <sub>B</sub> = 2.5 V, R <sub>L</sub> =1.0KΩ)  | V <sub>OL</sub>      | —          | —           | 0.2        | V          |
| Output Voltage (on)<br>输出电压(导通)<br>(V <sub>CC</sub> = 5.0 V, V <sub>B</sub> = 0.25 V, R <sub>L</sub> =1.0KΩ) | V <sub>OH</sub>      | 4.9        | —           | —          | V          |
| Input Resistor<br>输入电阻                                                                                       | R1                   | 7          | 10          | 13         | KΩ         |
| Resistor Ratio<br>电阻比率                                                                                       | R1/R 2               | —          | —           | —          |            |

■ Typical Characteristic Curve 典型特性曲线



■Dimension 外形封装尺寸



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.900                     | 1.150 | 0.035                | 0.045 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| 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 | 0.050                | 0.055 |
| E1     | 2.250                     | 2.550 | 0.089                | 0.100 |
| e      | 0.900                     | 1.00  | 0.035                | 0.039 |
| e1     | 1.800                     | 2.000 | 0.071                | 0.079 |
| L      | 0.500                     | 0.600 | 0.020                | 0.024 |
| L1     | 0.300                     | 0.500 | 0.012                | 0.020 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |