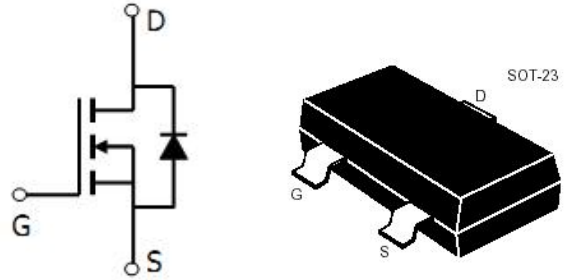




GM2304D

SOT-23 場效應晶體管(SOT-23 Field Effect Transistors)



N-Channel Enhancement-Mode MOS FETs

N 溝道增強型 MOS 場效應管

■MAXIMUM RATINGS 最大額定值

| Characteristic 特性參數 | Symbol 符號 | Rat 額定值 | Unit 單位 |
|--|--------------|------------|------------------|
| Drain-Source Voltage 漏極 - 源極電壓 | BV_{DSS} | 30 | V |
| Gate- Source Voltage 柵極 - 源極電壓 | V_{GS} | ± 20 | V |
| Drain Current (continuous) 漏極電流 - 連續 | I_D | 2.5 | A |
| Drain Current (pulsed) 漏極電流 - 脈沖 | I_{DM} | 10 | A |
| Total Device Dissipation 總耗散功率 $T_A=25^\circ\text{C}$ 環境溫度為 25°C | P_D | 1250 | mW |
| Junction 結溫 | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature 儲存溫度 | T_{stg} | -55to+150 | $^\circ\text{C}$ |

■DEVICE MARKING 打標

GM2304D=B6

GM2304D

■ELECTRICAL CHARACTERISTICS 電特性

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如無特殊說明，溫度為 25°C)

| Characteristic 特性參數 | Symbol 符號 | Min 最小值 | Typ 典型值 | Max 最大值 | Unit 單位 |
|---|--------------|------------|------------|------------|------------------|
| Drain-Source Breakdown Voltage 漏極-源極擊穿電壓($I_D=250\mu\text{A}, V_{GS}=0\text{V}$) | BV_{DSS} | 30 | — | — | V |
| Gate Threshold Voltage 柵極開啓電壓($I_D=250\mu\text{A}, V_{GS}=V_{DS}$) | $V_{GS(th)}$ | 1.5 | — | 3 | V |
| Diode Forward Voltage Drop 內附二極管正向壓降($I_S=1.25\text{A}, V_{GS}=0\text{V}$) | V_{SD} | — | — | 1.2 | V |
| Zero Gate Voltage Drain Current 零柵壓漏極電流($V_{GS}=0\text{V}, V_{DS}=30\text{V}$) | I_{DSS} | — | — | 1 | μA |
| Gate Body Leakage 柵極漏電流($V_{GS}=\pm 20\text{V}, V_{DS}=0\text{V}$) | I_{GSS} | — | — | ± 100 | nA |
| Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D=2.5\text{A}, V_{GS}=10\text{V}$) | $R_{DS(ON)}$ | — | 92 | 117 | $\text{m}\Omega$ |
| Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D=2\text{A}, V_{GS}=4.5\text{V}$) | $R_{DS(ON)}$ | — | 142 | 190 | $\text{m}\Omega$ |
| Input Capacitance 輸入電容 ($V_{GS}=0\text{V}, V_{DS}=15\text{V}, f=1\text{MHz}$) | C_{ISS} | — | 240 | — | pF |
| Output Capacitance 輸出電容 ($V_{GS}=0\text{V}, V_{DS}=15\text{V}, f=1\text{MHz}$) | C_{OSS} | — | 110 | — | pF |
| Turn-ON Time 開啓時間 ($V_{DS}=15\text{V}, I_D=1\text{A}, R_{GEN}=6\Omega$) | $t_{(on)}$ | — | 8 | — | ns |
| Turn-OFF Time 關斷時間 ($V_{DS}=15\text{V}, I_D=1\text{A}, R_{GEN}=6\Omega$) | $t_{(off)}$ | — | 17 | — | ns |

Pulse Width $\leq 300\mu\text{s}$; Duty Cycle $\leq 2.0\%$