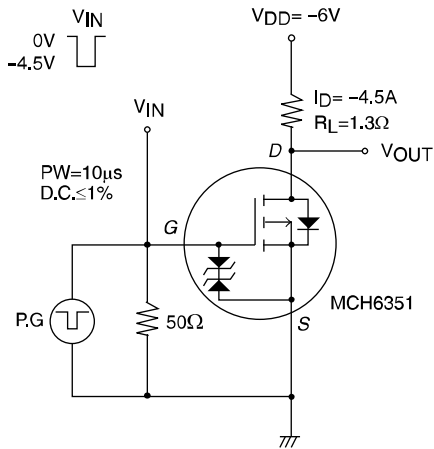


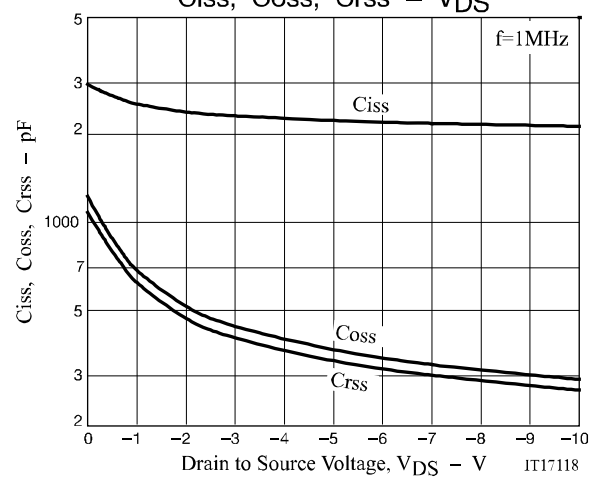
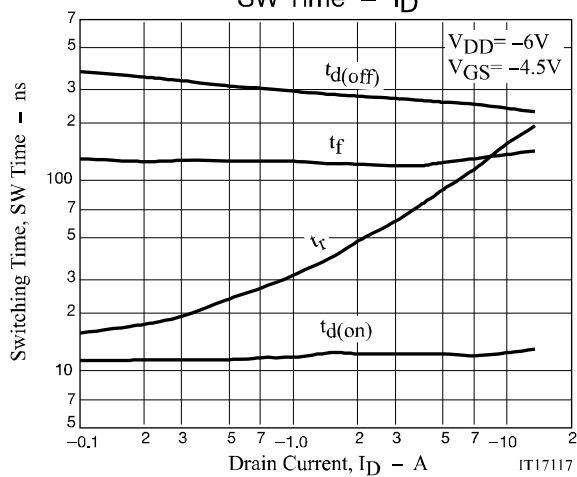
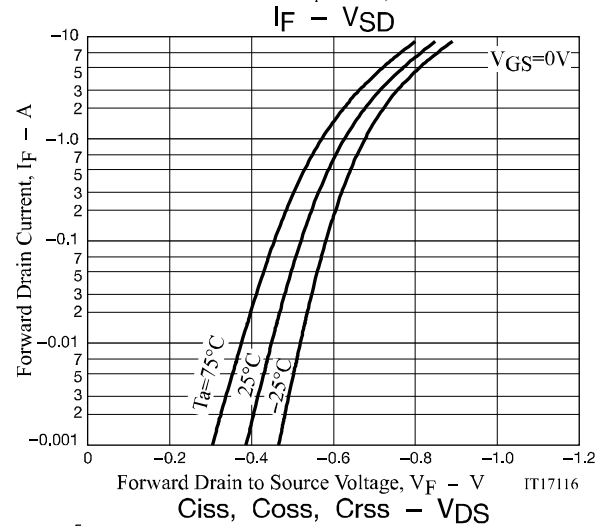
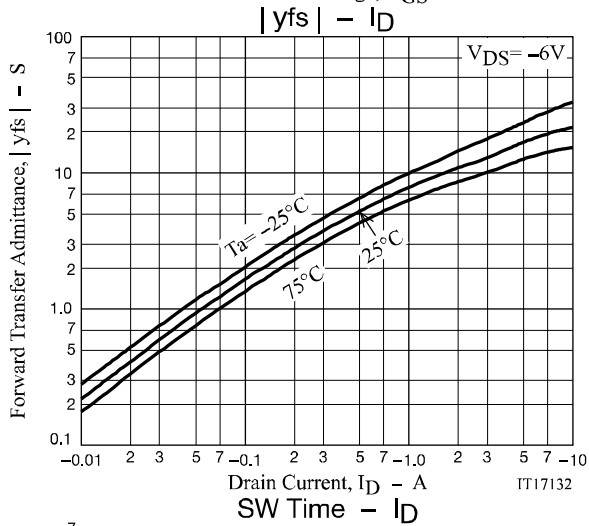
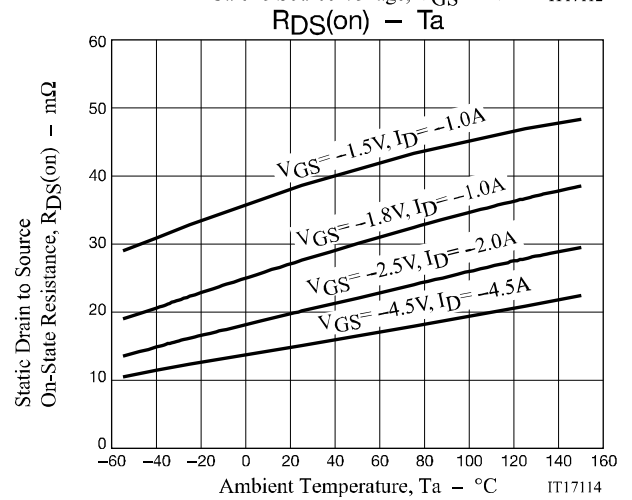
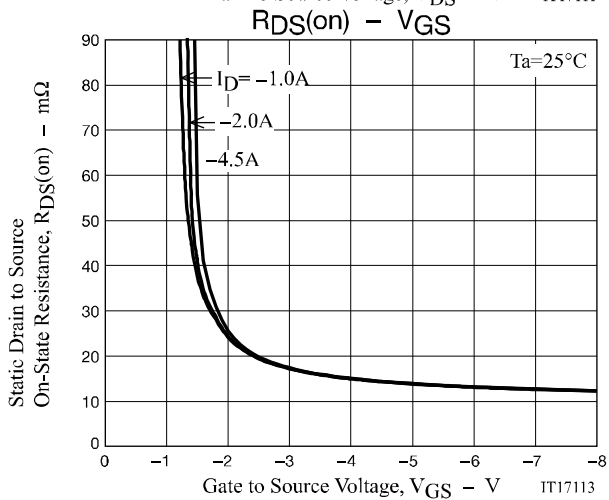
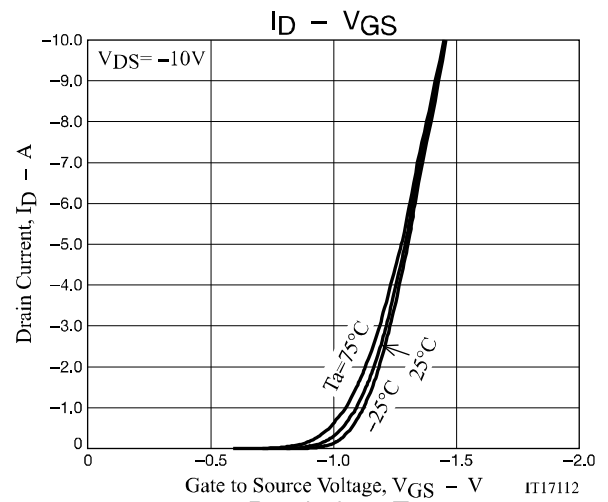
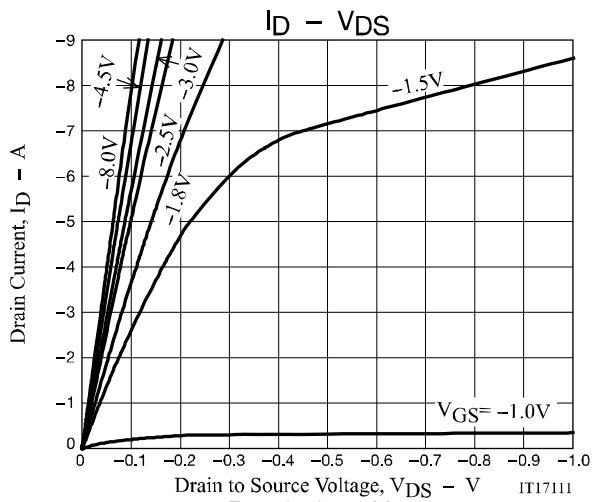
MCH6351

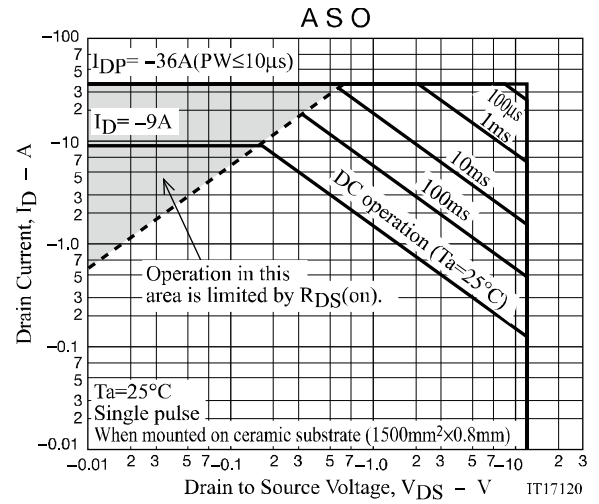
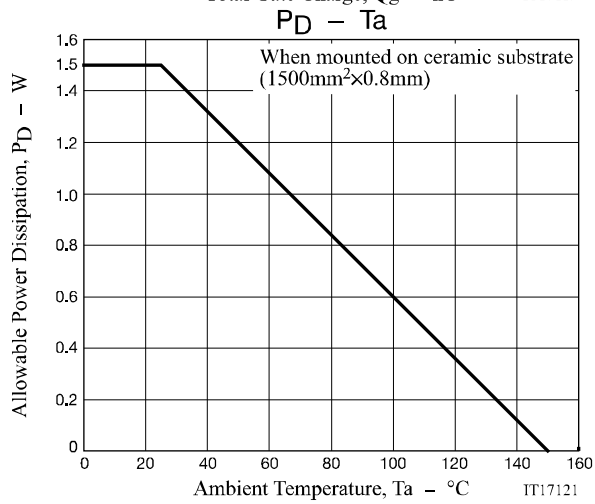
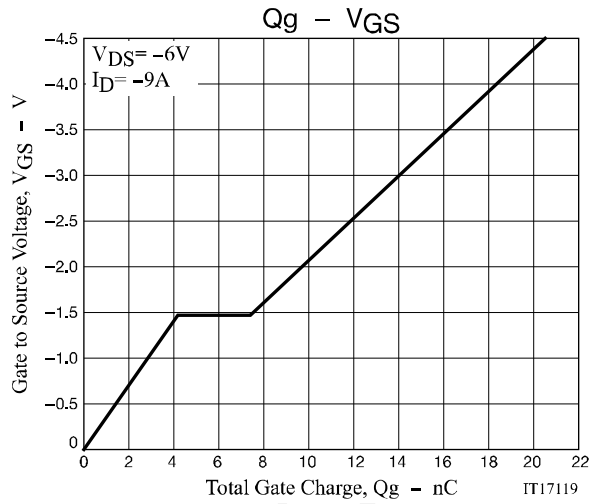
Electrical Characteristics at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--|---------------|--|---------|-------|----------|------------------|
| | | | min | typ | max | |
| Drain to Source Breakdown Voltage | $V_{(BR)DSS}$ | $I_D = -1\text{mA}$, $V_{GS} = 0\text{V}$ | -12 | | | V |
| Zero-Gate Voltage Drain Current | I_{DSS} | $V_{DS} = -12\text{V}$, $V_{GS} = 0\text{V}$ | | | -1 | μA |
| Gate to Source Leakage Current | I_{GSS} | $V_{GS} = \pm 8\text{V}$, $V_{DS} = 0\text{V}$ | | | ± 10 | μA |
| Cutoff Voltage | $V_{GS(off)}$ | $V_{DS} = -6\text{V}$, $I_D = -1\text{mA}$ | -0.4 | | -1.3 | V |
| Forward Transfer Admittance | $ y_{fs} $ | $V_{DS} = -6\text{V}$, $I_D = -4.5\text{A}$ | | 16.5 | | S |
| Static Drain to Source On-State Resistance | $R_{DS(on)1}$ | $I_D = -4.5\text{A}$, $V_{GS} = -4.5\text{V}$ | | 14 | 16.9 | $\text{m}\Omega$ |
| | $R_{DS(on)2}$ | $I_D = -2.0\text{A}$, $V_{GS} = -2.5\text{V}$ | | 19 | 24 | $\text{m}\Omega$ |
| | $R_{DS(on)3}$ | $I_D = -1.0\text{A}$, $V_{GS} = -1.8\text{V}$ | | 28 | 40 | $\text{m}\Omega$ |
| | $R_{DS(on)4}$ | $I_D = -1.0\text{A}$, $V_{GS} = -1.5\text{V}$ | | 37 | 74 | $\text{m}\Omega$ |
| Input Capacitance | C_{iss} | $V_{DS} = -6\text{V}$, $f = 1\text{MHz}$ | | 2200 | | pF |
| Output Capacitance | C_{oss} | | | 350 | | pF |
| Reverse Transfer Capacitance | C_{rss} | | | 320 | | pF |
| Turn-ON Delay Time | $t_{d(on)}$ | See specified Test Circuit. | | 12.3 | | ns |
| Rise Time | t_r | | | 89 | | ns |
| Turn-OFF Delay Time | $t_{d(off)}$ | | | 260 | | ns |
| Fall Time | t_f | | | 122 | | ns |
| Total Gate Charge | Q_g | $V_{DS} = -6\text{V}$, $V_{GS} = -4.5\text{V}$, $I_D = -9\text{A}$ | | 20.5 | | nC |
| Gate to Source Charge | Q_{gs} | | | 4.2 | | nC |
| Gate to Drain "Miller" Charge | Q_{gd} | | | 3.2 | | nC |
| Diode Forward Voltage | V_{SD} | $I_S = -9\text{A}$, $V_{GS} = 0\text{V}$ | | -0.83 | -1.2 | V |

Switching Time Test Circuit





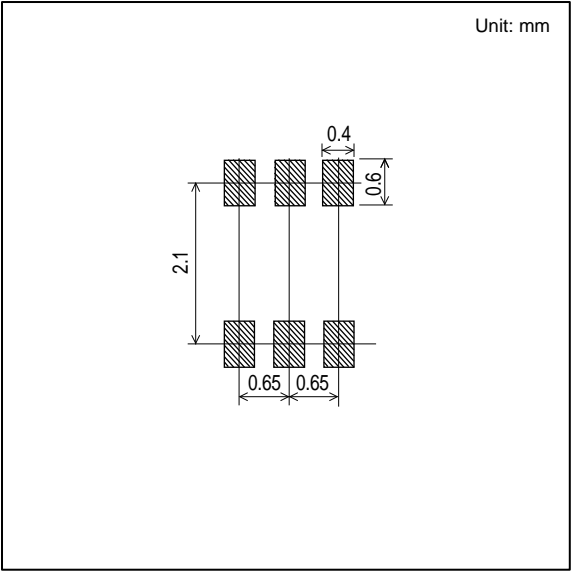
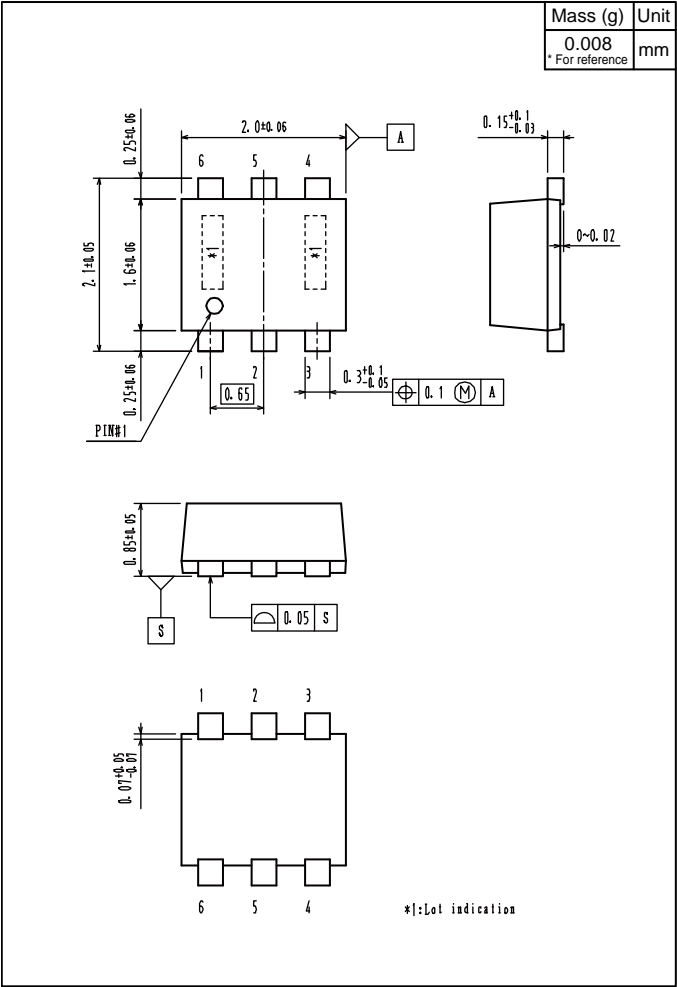


MCH6351

Outline Drawing

MCH6351-TL-W

Land Pattern Example



Note on usage : Since the MCH6351 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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