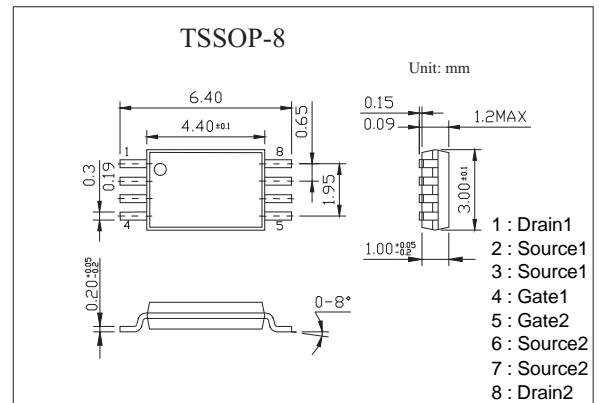
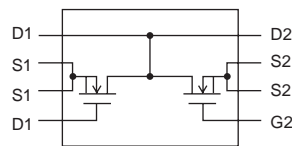


Dual N-Channel Enhancement Mode MOSFET

FTD2019

■ Features

- $R_{DS(ON)}=28m\ \Omega$ Max. @ $V_{GS}=4V$
- $R_{DS(ON)}=35m\ \Omega$ Max. @ $V_{GS}=2.5V$



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit | |
|--|------------------|------------|---------------------------|---|
| Drain-Source Voltage | V_{DS} | 30 | V | |
| Gate-Source Voltage | V_{GS} | ± 10 | V | |
| Drain-Current | -Continuous | I_D | 5 | A |
| | -Pulsed (NOTE 1) | I_{DM} | 20 | A |
| Power Dissipation (NOTE 2) | P_D | 1.3 | W | |
| Thermal Resistance, Junction- to-Ambient | $R_{\theta JA}$ | 96 | $^\circ\text{C}/\text{W}$ | |
| Operating Junction and Storage Temperature Range | T_j, T_{stg} | -55 to 150 | $^\circ\text{C}$ | |

Note: 1. $PW \leq 10\mu\text{s}$, duty cycle $\leq 1\%$

2. Mounted on a ceramic board ($1000\text{mm}^2 \times 0.8\text{mm}$)

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■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|-----------------------------------|----------------------|---|-----|------|-----|------|
| Drain-Source Breakdown Voltage | V _{DSS} | V _{GS} =0V, I _D =1mA | 30 | | | V |
| Zero Gate Voltage Drain Current | I _{DSS} | V _{DS} =30V, V _{GS} =0V | | | 1 | μA |
| Gate-Body Leakage | I _{GSS} | V _{GS} =±8V, V _{DS} =0V | | | ±10 | μA |
| Cutoff Voltage | V _{GS(off)} | V _{DS} =10V, I _D =1mA | 0.4 | | 1.3 | V |
| Drain- Source on-state Resistance | R _{DS(ON)} | V _{GS} =4V, I _D =5A | | | 28 | mΩ |
| | | V _{GS} =2.5V, I _D =2A | | | 35 | mΩ |
| Input Capacitance | C _{iss} | V _{DS} = 10V, V _{GS} = 0V, f = 1.0MHz | | 1300 | | pF |
| Output Capacitance | C _{oss} | | | 280 | | pF |
| Reverse Transfer Capacitance | C _{rss} | | | 160 | | pF |
| Turn-On Delay Time | t _{D(on)} | V _{DD} =15V, I _D =5A, V _{GS} =4V, R _L =3Ω, R _{GEN} =50Ω | | 18 | | ns |
| Rise Time | t _r | | | 115 | | ns |
| Turn-Off Delay Time | t _{D(off)} | | | 130 | | ns |
| Fall Time | t _f | | | 145 | | ns |
| Total Gate Charge | Q _g | V _{DS} = 10V, I _D = 5A, V _{GS} = 10V | | 50 | | nC |
| Gate-Source Charge | Q _{gs} | | | 2.5 | | nC |
| Gate-Drain Charge | Q _{gd} | | | 5 | | nC |
| Diode Forward Voltage | V _{SD} | I _S =5A, V _{GS} =0 | | | 1.2 | V |

■ Marking

| | |
|---------|------|
| Marking | 2019 |
|---------|------|