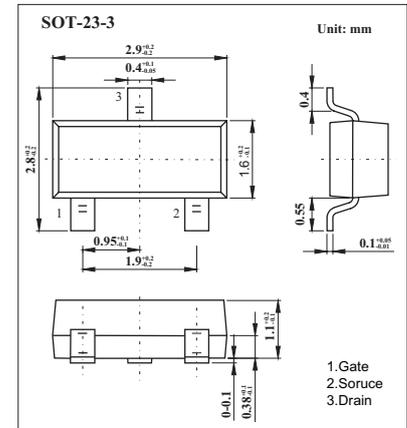


# MTB080P06N3

## P-Channel Enhancement Mode MOSFET

|   |                               |               |
|---|-------------------------------|---------------|
| $BV_{DSS}$                              |                               | -60V          |
| $I_D @ V_{GS} = -10V, T_A = 25^\circ C$ |                               | -3.0A         |
| $R_{DS(ON)(TYP)}$                       | $V_{GS} = -10V, I_D = -3A$    | 155m $\Omega$ |
|   | $V_{GS} = -4.5V, I_D = -2.7A$ | 208m $\Omega$ |



### Absolute Maximum Ratings (Ta=25°C)

| Parameter                                  | Symbol              | Limits   | Unit |
|--|---------------------|----------|------|
| Drain-Source Voltage                       | $V_{DS}$            | -60      | V    |
| Gate-Source Voltage                        | $V_{GS}$            | $\pm 20$ |      |
| Continuous Drain Current @ $V_{GS} = -10V$ | $T_A = 25^\circ C$  | -3.0     | A    |
|  | $T_A = 70^\circ C$  | -2.5     |      |
| Pulsed Drain Current                       | (Note 1&2) $I_{DM}$ | -10      |      |
| Maximum Power Dissipation                  | $T_A = 25^\circ C$  | 1.25     | W    |
|  | $T_A = 70^\circ C$  | 0.8      |      |
| Operating Junction and Storage Temperature | $T_j, T_{stg}$      | -55~+150 | °C   |

### Electrical Characteristics (Tj=25°C, unless otherwise specified)

| Symbol         | Min. | Typ. | Max.      | Unit       | Test Conditions  |
|----------------|------|------|-----------|------------|--|
| <b>Static</b>  |      |      |           |            |  |
| $BV_{DSS}$     | -60  | -    | -         | V          | $V_{GS} = 0V, I_D = -250\mu A$                           |
| $V_{GS(th)}$   | -1.0 | -    | -2.5      |            | $V_{DS} = V_{GS}, I_D = -250\mu A$                       |
| $I_{GSS}$      | -    | -    | $\pm 100$ | nA         | $V_{GS} = \pm 20V, V_{DS} = 0V$                          |
| $I_{DSS}$      | -    | -    | -1        | $\mu A$    | $V_{DS} = -48V, V_{GS} = 0V$                             |
|                | -    | -    | -10       |            | $V_{DS} = -48V, V_{GS} = 0V, T_j = 55^\circ C$           |
| * $R_{DS(ON)}$ | -    | 155  | 204       | m $\Omega$ | $V_{GS} = -10V, I_D = -3A$                               |
|                | -    | 159  | 250       |            | $V_{GS} = -4.5V, I_D = -2.7A$                            |
| * $G_{FS}$     | -    | 5    | -         | S          | $V_{DS} = -10V, I_D = -2A$                               |
| <b>Dynamic</b> |      |      |           |            |  |
| $C_{iss}$      | -    | 511  | -         | pF         | $V_{DS} = -25V, V_{GS} = 0V, f = 1MHz$                   |
| $C_{oss}$      | -    | 57   | -         |            |  |
| $C_{rss}$      | -    | 40   | -         |            |  |
| * $t_{d(ON)}$  | -    | 6.8  | -         | ns         | $V_{DS} = -30V, I_D = -2A, V_{GS} = -10V, R_G = 3\Omega$ |
| * $t_r$        | -    | 18.2 | -         |            |  |
| * $t_{d(OFF)}$ | -    | 26.4 | -         |            |  |
| * $t_f$        | -    | 7.6  | -         |            |  |
| * $Q_g$        | -    | 12   | -         | nC         | $V_{DS} = -48V, I_D = -2A, V_{GS} = -10V$                |
| * $Q_{gs}$     | -    | 1.7  | -         |            |  |
| * $Q_{gd}$     | -    | 3    | -         |            |  |

■ Marking

|         |      |
|---------|------|
| Marking | B8P6 |
|---------|------|