

# 60 Volt MOSFETs

A series of mid-voltage MOSFETs containing small signal products for low current switching applications and trench MOSFETs. The trench MOSFETs enable much higher current handling capability in the packages on offer.

Typical applications include:-

- Motor control
- Relay driving
- Audio output stages
- Low and high side switching

## N-Channel

| Part Number     | Package | Polarity | BV <sub>DSS</sub> | I <sub>D</sub> | P <sub>D</sub> | R <sub>DS(on)</sub> Max @   |                            | C <sub>iss</sub> (typ) @<br>V <sub>DS</sub> = 30V | Q <sub>g</sub> (typ) @<br>V <sub>GS</sub> = 10V |
|-----------------|---------|----------|-------------------|----------------|----------------|-----------------------------|----------------------------|---|---|
|                 |         |          |                   |                |                | V <sub>GS</sub> = 4.5V<br>Ω | V <sub>GS</sub> = 10V<br>Ω |   |   |
|                 |         |          | V                 | A              | W              |                             |                            | pF  | nC  |
| ZXMN6A09DN8 (1) | SO8     | 2 x N    | 60                | 5.0            | 2.1            | 0.070                       | 0.045                      | 1410  | 24  |
| ZXMN6A11G (1)   | SOT223  | N        | 60                | 3.8            | 3.9            | 0.250                       | 0.140                      | 330   | 5.7   |
| ZXMN6A08E6 (1)  | SOT23-6 | N        | 60                | 3.0            | 1.7            | 0.180                       | 0.100                      | 459   | 5.8   |
| ZXMN6A11DN8 (1) | SO8     | 2 x N    | 60                | 2.7            | 2.1            | 0.250                       | 0.140                      | 330   | 5.7   |
| ZVN4306G (3)    | SOT223  | N        | 60                | 2.1            | 3              | 0.45 @ 5V                   | 0.33                       | 220   | 5.2   |
| ZDM4306N        | SM-8    | 2 x N    | 60                | 2              | 2.5            | 0.45 @ 5V                   | 0.33                       | 220   | 5.2   |
| ZXMN6A07Z (1)   | SOT89   | N        | 60                | 1.2            | 1.0            | 0.450                       | 0.300                      | 166   | 3.2   |
| ZVN4306A (3)    | E-Line  | N        | 60                | 1.1            | 1.1            | 0.45 @ 5V                   | 0.33                       | 220   | 5.2   |
| ZDM4206N        | SM-8    | 2 x N    | 60                | 1              | 2.25           | 1.5 @ 5V                    | 1                          | 70  | 2.4   |
| ZXMN6A07F (1)   | SOT23   | N        | 60                | 1              | 0.8            | 0.450                       | 0.300                      | 166   | 3.2   |
| ZVN4206G (3)    | SOT223  | N        | 60                | 1              | 2              | 1.5 @ 5V                    | 1                          | 70  | 2.4   |
| ZVN2106G        | SOT223  | N        | 60                | 0.71           | 2              | -                           | 2                          | 50  | 1.6   |
| ZVN4206A (3)    | E-Line  | N        | 60                | 0.6            | 0.7            | 1.5 @ 5V                    | 1                          | 70  | 2.4   |
| ZVN2106A        | E-Line  | N        | 60                | 0.45           | 0.7            | -                           | 2                          | 50  | 1.6   |
| ZVN3306A        | E-Line  | N        | 60                | 0.27           | 0.625          | -                           | 5                          | 30  | 0.95  |
| VN10LP          | E-Line  | N        | 60                | 0.27           | 0.625          | 7.5 @ 5V                    | 5                          | 30  | 0.95  |
| ZVN4106F        | SOT23   | N        | 60                | 0.2            | 0.33           | 5 @ 5V                      | 2.5                        | 27  | 1   |
| ZVN3306F        | SOT23   | N        | 60                | 0.15           | 0.33           | -                           | 5                          | 30  | 0.95  |
| 2N7002          | SOT23   | N        | 60                | 0.15           | 0.33           | -                           | 3.75                       | 27  | 1   |

## P-Channel

| Part Number     | Package | Polarity | BV <sub>DSS</sub> | I <sub>D</sub> | P <sub>D</sub> | R <sub>DS(on)</sub> Max @    |                             | C <sub>iss</sub> (typ) @<br>V <sub>DS</sub> = -30V | Q <sub>g</sub> (typ) @<br>V <sub>GS</sub> = -10V |
|-----------------|---------|----------|-------------------|----------------|----------------|------------------------------|-----------------------------|--|--|
|                 |         |          |                   |                |                | V <sub>GS</sub> = -4.5V<br>Ω | V <sub>GS</sub> = -10V<br>Ω |  |  |
|                 |         |          | V                 | A              | W              |                              |                             | pF   | nC   |
| ZXMP6A18DN8 (2) | SO8     | 2 x P    | -60               | -4.4           | 2.1            | 0.080                        | 0.065                       | 1400   | 34   |
| ZXMP6A17G (2)   | SOT223  | P        | -60               | -3.9           | 3.9            | 0.180                        | 0.15                        | 560  | 14   |
| ZXMP6A16DN8 (2) | SO8     | 2 x P    | -60               | -3.5           | 2.1            | 0.120                        | 0.100                       | 880  | 22   |
| ZXMP6A17DN8 (2) | SO8     | 2 x P    | -60               | -2.9           | 2.1            | 0.180                        | 0.150                       | 560  | 14   |
| ZXMP6A13G (2)   | SOT223  | P        | -60               | -2.6           | 3.9            | 0.55                         | 0.34                        | 160  | 4  |
| ZXMP6A17E6 (2)  | SOT23-6 | P        | -60               | -2.5           | 1.7            | 0.190                        | 0.160                       | 560  | 14   |
| ZXMP6A13F (2)   | SOT23   | P        | -60               | -1.2           | 0.8            | 0.55                         | 0.34                        | 160  | 4  |
| ZVP2106G        | SOT223  | P        | -60               | -0.45          | 2              | -                            | 5                           | 55   | 1.7  |
| ZVP2106A        | E-Line  | P        | -60               | -0.28          | 0.7            | -                            | 5                           | 55   | 1.7  |
| ZVP3306A        | E-Line  | P        | -60               | -0.16          | 0.625          | -                            | 14                          | 27   | 0.9  |
| ZVP3306F        | SOT23   | P        | -60               | -0.09          | 0.33           | -                            | 14                          | 27   | 0.9  |

## N & P-Channel

| Part Number     | Package | Polarity | BV <sub>DSS</sub> | I <sub>D</sub> | P <sub>D</sub> | R <sub>DS(on)</sub> Max @   |                            | C <sub>iss</sub> (typ) @<br>V <sub>DS</sub> = 30V | Q <sub>g</sub> (typ) @<br>V <sub>GS</sub> = 10V |
|-----------------|---------|----------|-------------------|----------------|----------------|-----------------------------|----------------------------|---|---|
|                 |         |          |                   |                |                | V <sub>GS</sub> = 4.5V<br>Ω | V <sub>GS</sub> = 10V<br>Ω |   |   |
|                 |         |          | V                 | A              | W              |                             |                            | pF  | nC  |
| ZXMC6A09DN8 (2) | SO8     | N        | 60                | 5.0            | 2.1            | 0.070                       | 0.045                      | 1410  | 24  |
|                 |         | P        | -60               | -4.4           | 2.1            | 0.080                       | 0.065                      | 1400  | 34  |
| ZXMC4559DN8 (2) | SO8     | N        | 60                | 4.6            | 2.1            | 0.065                       | 0.055                      | 980   | 17  |
|                 |         | P        | -60               | -3.5           | 2.1            | 0.120                       | 0.100                      | 880   | 22  |

## N & P-Channel H-bridge

| Part Number    | Package | Polarity | BV <sub>DSS</sub> | I <sub>D</sub> | P <sub>D</sub> | R <sub>DS(on)</sub> Max @   |                            | C <sub>iss</sub> (typ) @<br>V <sub>DS</sub> = 30V | Q <sub>g</sub> (typ) @<br>V <sub>GS</sub> = 10V |
|----------------|---------|----------|-------------------|----------------|----------------|-----------------------------|----------------------------|---|---|
|                |         |          |                   |                |                | V <sub>GS</sub> = 4.5V<br>Ω | V <sub>GS</sub> = 10V<br>Ω |   |   |
|                |         |          | V                 | A              | W              |                             |                            | pF  | nC  |
| ZXMH6A07T8 (2) | SM8     | 2xN      | 60                | 1.2            | 2              | 0.45                        | 0.30                       | 166   | 3.2   |
|                |         | 2xP      | -60               | -1.0           | 2              | 0.55                        | 0.34                       | 160   | 4   |

Notes: (1) - Provisional data (2) - Advanced information (samples Q202) (3) - Add suffix V to part-number for avalanche rated version