



#### Product Summary

|               |                 |       |
|---------------|-----------------|-------|
| $V_{(BR)DSS}$ | $R_{DS(on)TYP}$ | $I_D$ |
| -60V          | 26mΩ@-10V       | -35A  |

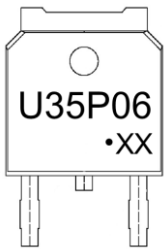
#### Feature

- High density cell design for ultra low  $R_{DS(ON)}$
- Excellent package for good heat dissipation

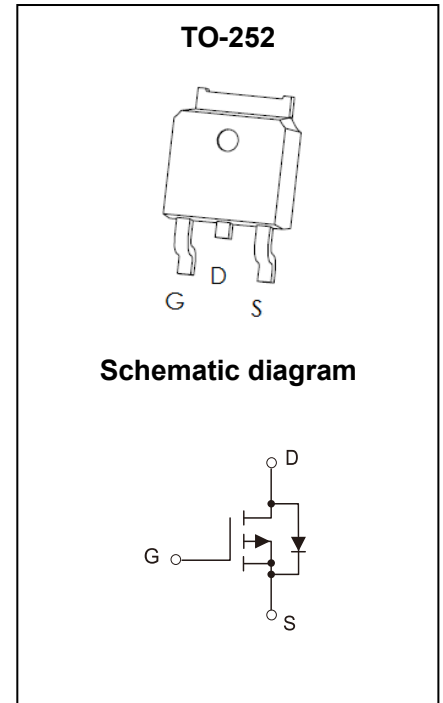
#### Application

- Power switching application
- Hard switched and high frequency circuits
- Uninterruptible Power Supply

#### MARKING:



U35P06= Device code  
 Solid dot = Green molding compound device,  
 if none, the normal device  
 XX=Date Code



#### ABSOLUTE MAXIMUM RATINGS (TC=25°C unless otherwise noted)

| Parameter                                | Symbol          | Value     | Unit |
|--|-----------------|-----------|------|
| Drain-Source Voltage                     | $V_{DS}$        | -60       | V    |
| Gate-Source Voltage                      | $V_{GS}$        | ±20       | V    |
| Continuous Drain Current                 | $I_D$           | -35       | A    |
| Pulsed Drain Current                     | $I_{DM}$        | -140      | A    |
| Power Dissipation                        | $P_D$           | 80        | W    |
| Thermal Resistance from Junction to Case | $R_{\theta JC}$ | 1.5       | °C/W |
| Junction Temperature                     | $T_J$           | 150       | °C   |
| Storage Temperature                      | $T_{STG}$       | -55~ +150 | °C   |

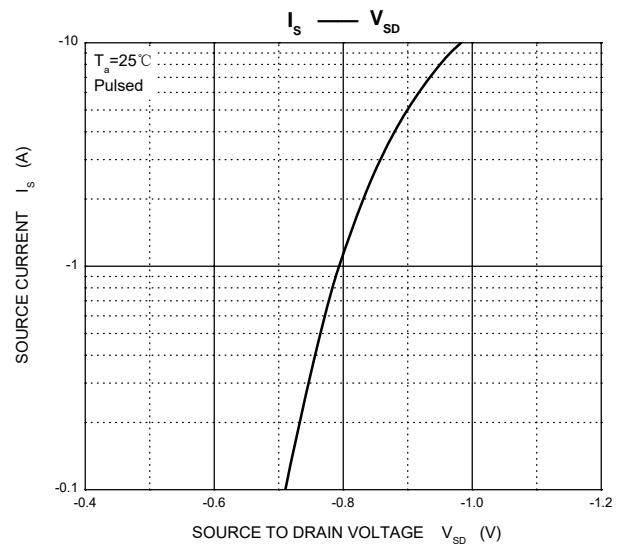
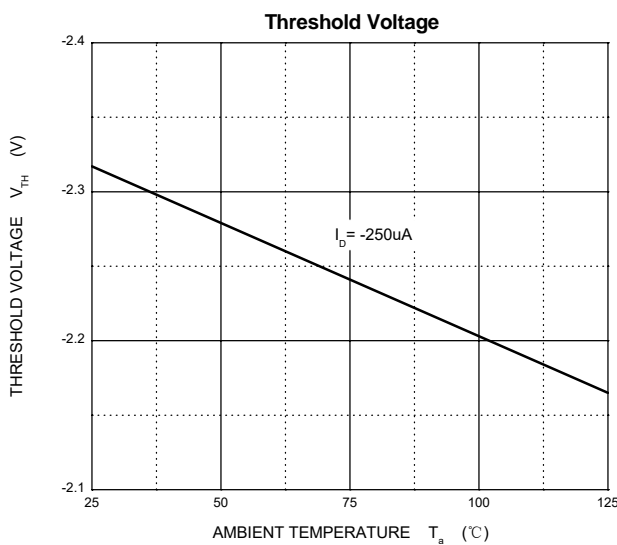
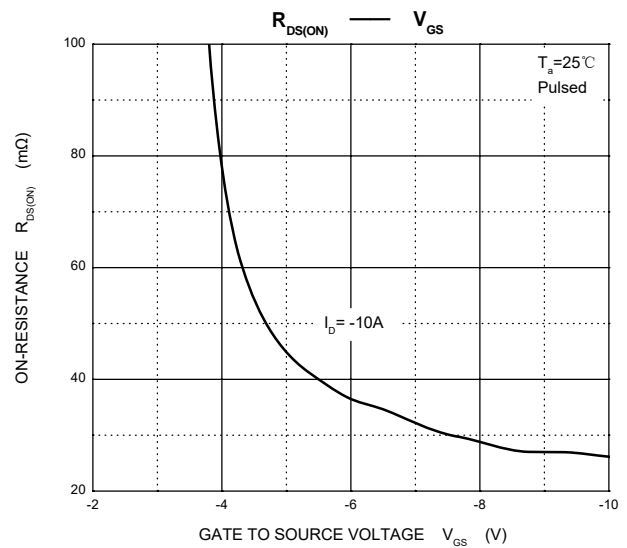
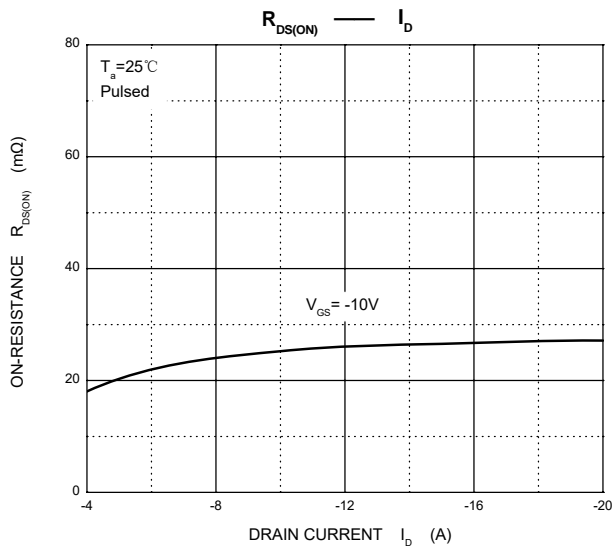
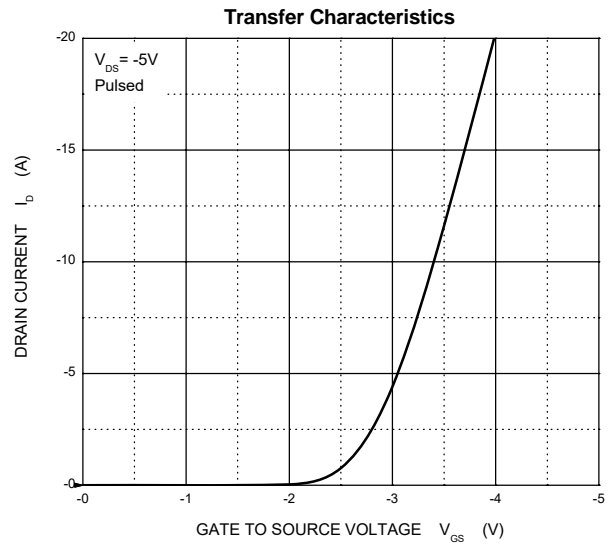
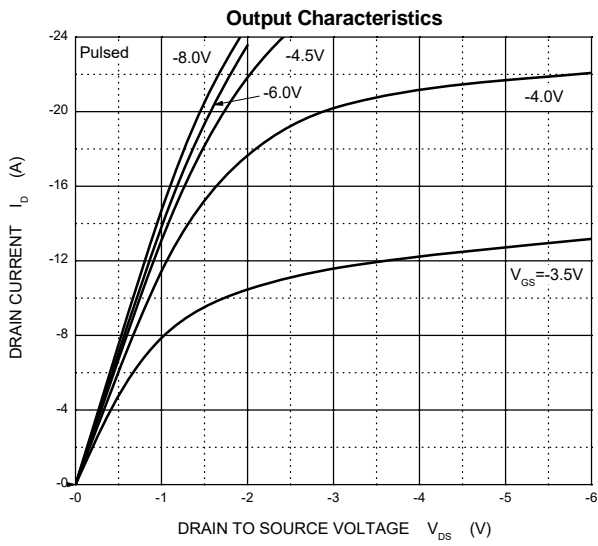
**MOSFET ELECTRICAL CHARACTERISTICS(TC=25°C unless otherwise noted)**

| Parameter                        | Symbol        | Test Condition   | Min | Type | Max       | Unit       |
|----------------------------------|---------------|--|-----|------|-----------|------------|
| <b>Off Characteristics</b>       |               |  |     |      |           |            |
| Drain-source breakdown voltage   | $V_{(BR)DSS}$ | $V_{GS} = 0V, I_D = -250\mu A$                                       | -60 |      |           | V          |
| Zero gate voltage drain current  | $I_{DSS}$     | $V_{DS} = -48V, V_{GS} = 0V$   |     |      | -1        | $\mu A$    |
| Gate-body leakage current        | $I_{GSS}$     | $V_{GS} = \pm 20V, V_{DS} = 0V$                                      |     |      | $\pm 100$ | nA         |
| <b>On Characteristics</b>        |               |  |     |      |           |            |
| Gate threshold voltage*          | $V_{GS(th)}$  | $V_{DS} = V_{GS}, I_D = -250\mu A$                                   | -1  | -2.3 | -3        | V          |
| Drain-source on-resistance*      | $R_{DS(on)}$  | $V_{GS} = -10V, I_D = -15A$  |     | 26   | 35        | m $\Omega$ |
| Forward transconductance*        | $g_{FS}$      | $V_{DS} = -10V, I_D = -10A$  | 15  |      |           | S          |
| <b>Dynamic characteristics</b>   |               |  |     |      |           |            |
| Input Capacitance                | $C_{iss}$     | $V_{DS} = -30V, V_{GS} = 0V, f = 1MHz$                               |     | 3900 |           | pF         |
| Output Capacitance               | $C_{oss}$     |  |     | 452  |           |            |
| Reverse Transfer Capacitance     | $C_{rss}$     |  |     | 331  |           |            |
| <b>Switching Characteristics</b> |               |  |     |      |           |            |
| Total Gate Charge                | $Q_g$         | $V_{DS} = -30V, V_{GS} = -10V, I_D = -15A$                           |     | 53   |           | nC         |
| Gate-Source Charge               | $Q_{gs}$      |  |     | 15   |           |            |
| Gate-Drain Charge                | $Q_{gd}$      |  |     | 13   |           |            |
| Turn-on delay time               | $t_{d(on)}$   | $V_{DD} = -30V, R_G = 1.5\Omega,$<br>$V_{GS} = -10V, R_G = 3\Omega,$ |     | 13   |           | ns         |
| Turn-on rise time                | $t_r$         |  |     | 17   |           |            |
| Turn-off delay time              | $t_{d(off)}$  |  |     | 50   |           |            |
| Turn-off fall time               | $t_f$         |  |     | 20   |           |            |
| <b>Diode Characteristics</b>     |               |  |     |      |           |            |
| Diode Forward Voltage            | $V_{SD}$      | $V_{GS} = 0V, I_S = -15A$  |     |      | -1.2      | V          |

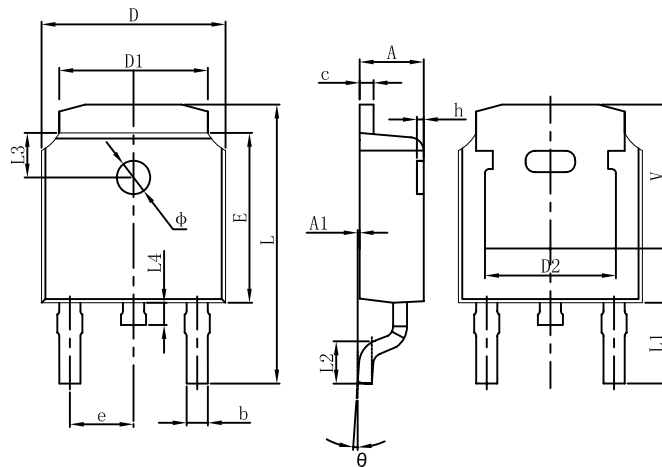
Note :

 \*: Pulse test : Pulse width  $\leq 380\mu s$ , duty cycle  $\leq 2\%$ .

**Typical Characteristics**



## TO-252 Package Information



| Symbol | Dimensions In Millimeters |        | Dimensions In Inches |       |
|--------|---------------------------|--------|----------------------|-------|
|        | Min.                      | Max.   | Min.                 | Max.  |
| A      | 2.200                     | 2.400  | 0.087                | 0.094 |
| A1     | 0.000                     | 0.127  | 0.000                | 0.005 |
| b      | 0.635                     | 0.770  | 0.025                | 0.030 |
| c      | 0.460                     | 0.580  | 0.018                | 0.023 |
| D      | 6.500                     | 6.700  | 0.256                | 0.264 |
| D1     | 5.100                     | 5.460  | 0.201                | 0.215 |
| D2     | 4.830 REF.                |        | 0.190 REF.           |       |
| E      | 6.000                     | 6.200  | 0.236                | 0.244 |
| e      | 2.186                     | 2.386  | 0.086                | 0.094 |
| L      | 9.712                     | 10.312 | 0.382                | 0.406 |
| L1     | 2.900 REF.                |        | 0.114 REF.           |       |
| L2     | 1.400                     | 1.700  | 0.055                | 0.067 |
| L3     | 1.600 REF.                |        | 0.063 REF.           |       |
| L4     | 0.600                     | 1.000  | 0.024                | 0.039 |
| φ      | 1.100                     | 1.300  | 0.043                | 0.051 |
| θ      | 0°                        | 8°     | 0°                   | 8°    |
| h      | 0.000                     | 0.300  | 0.000                | 0.012 |
| V      | 5.250 REF.                |        | 0.207 REF.           |       |

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)