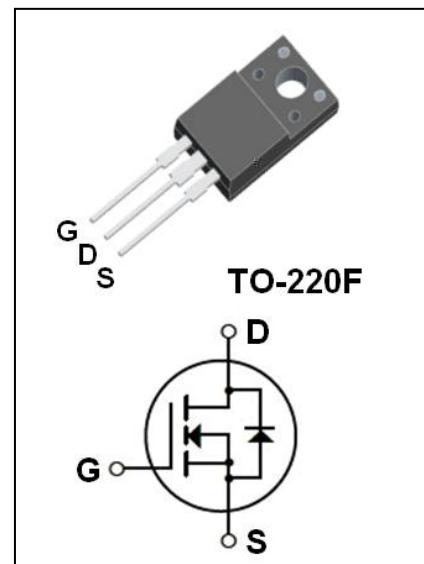


## Features:



## Application:

## Absolute Maximum Ratings

A scatter plot showing absolute maximum ratings across 10 rows. The plot includes two data series: one represented by open circles and another by a plus sign (+).

| Row | Series A (Open Circles) | Series B (+) |
|-----|-------------------------|--------------|
| 1   |                         |              |
| 2   |                         |              |
| 3   |                         |              |
| 4   |                         |              |
| 5   |                         |              |
| 6   |                         |              |
| 7   |                         |              |
| 8   | (○)                     |              |
| 9   |                         | +            |
| 10  | ○                       | ○            |

\*

# Thermal Characteristics

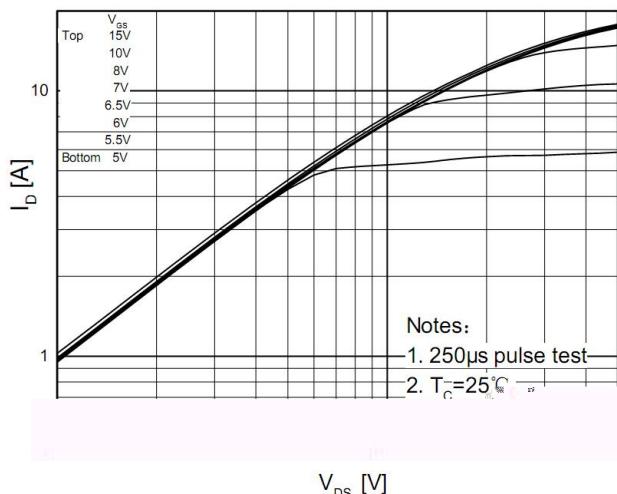
| Thermal characteristics |  |  |   |
|-------------------------|--|--|---|
|                         |  |  |   |
|                         |  |  | o |

**Electrical Characteristics**

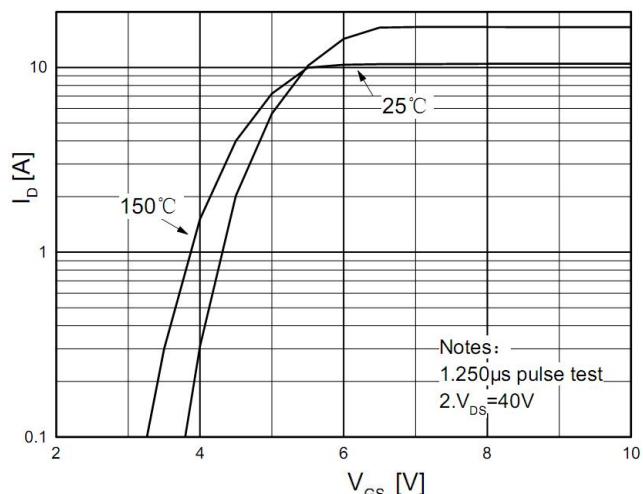
°

|   |  |  |   |  |  |   |
|---|--|--|---|--|--|---|
|   |  |  |   |  |  |   |
| <b>Off Characteristics</b>                                    |  |  |   |  |  |   |
| △   |  |  | ° |  |  | ° |
|   |  |  |   |  |  |   |
|   |  |  | ° |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
| <b>On Characteristics</b>                                     |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
| <b>Dynamic Characteristics</b>                                |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
| <b>Switching Characteristics</b>                              |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
| <b>Drain-Source Diode Characteristics and Maximum Ratings</b> |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |
|   |  |  |   |  |  |   |

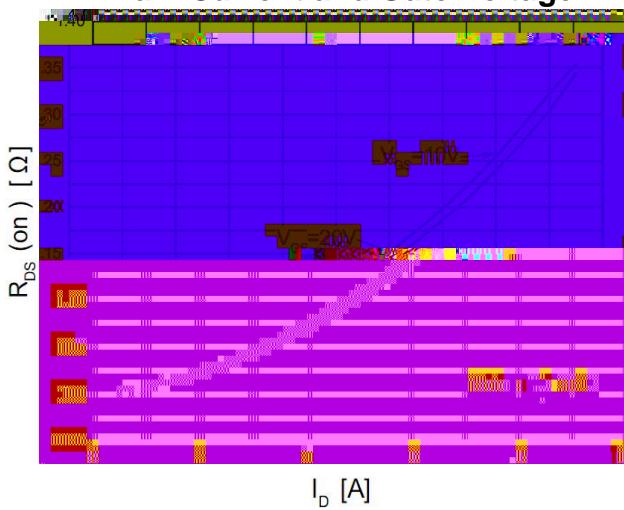
### On-Region Characteristics



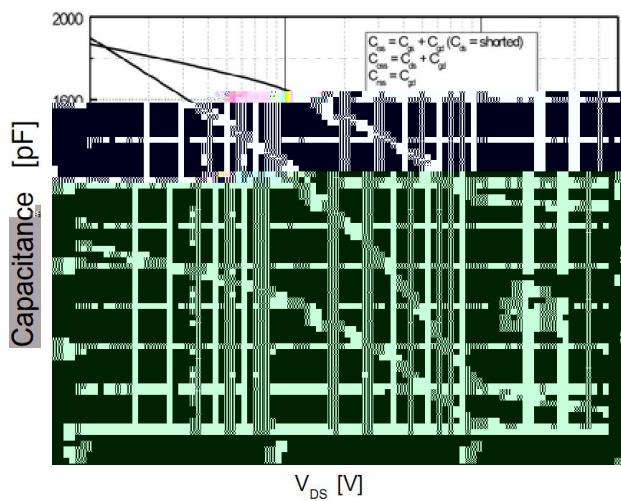
### Transfer Characteristics



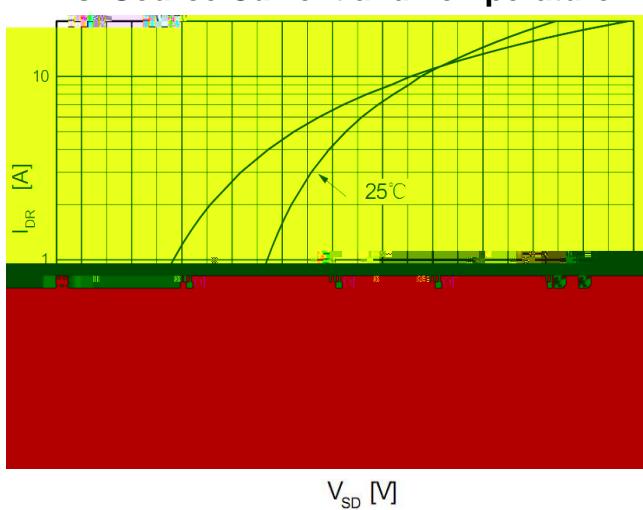
### On-Resistance Variation vs. Drain Current and Gate Voltage



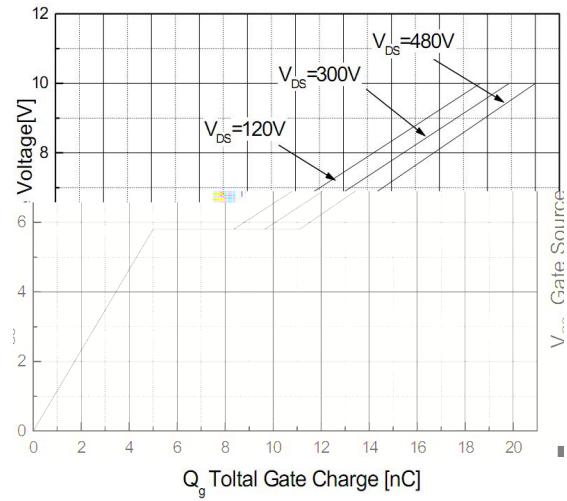
### Capacitance Characteristics



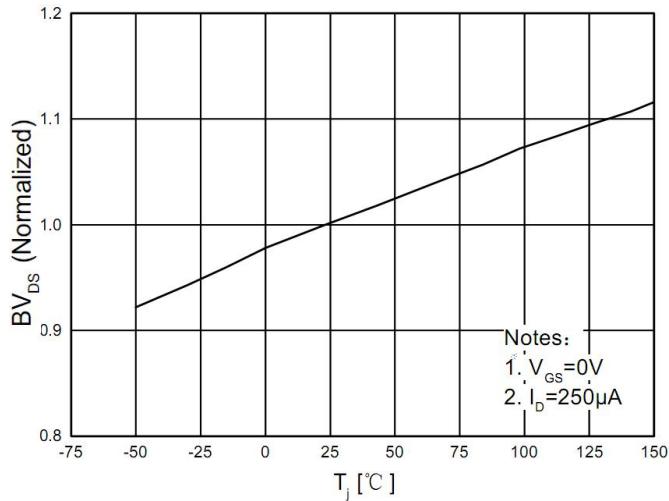
### Body Diode Forward Voltage Variation vs. Source Current and Temperature



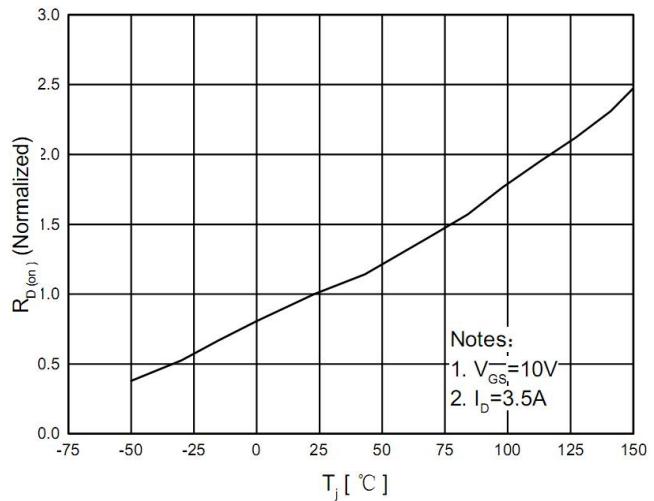
### Gate Charge Characteristics



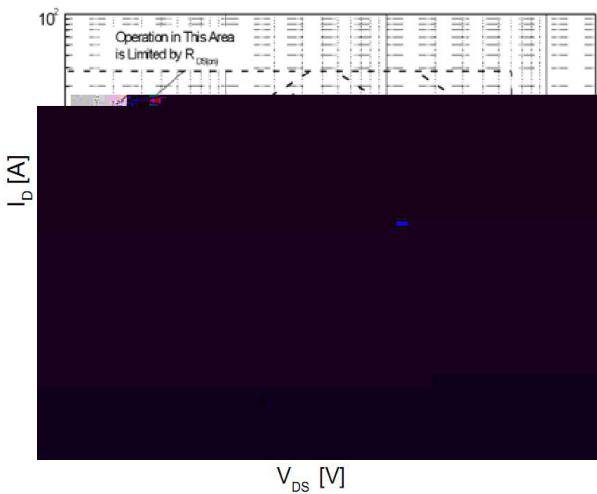
### Breakdown Voltage Variation vs. Temperature



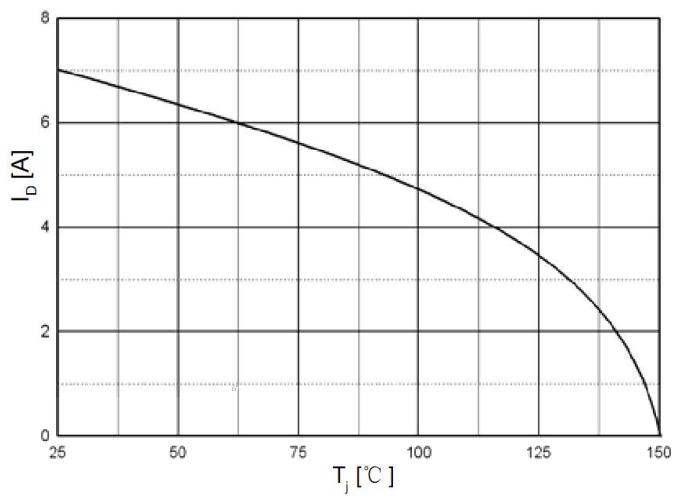
### On-Resistance Variation vs. Temperature



### Maximum Safe Operating Area



### Maximum Drain Current Vs. Case Temperature



## TO-220F Package Dimensions

:

× °

H %

