

# Kingtronics®

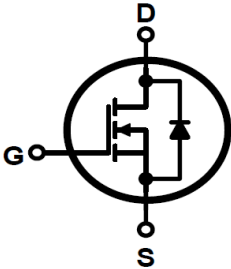
## KT2N65

### N-Channel Power MOSFET

## FEATURES

LOW ON-RESISTANCE  
 FAST SWITCHING  
 HIGH INPUT RESISTANCE  
 ROHS COMPLIANT

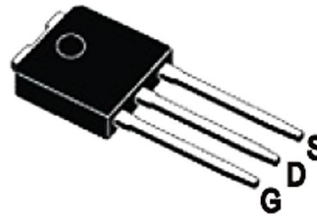
## Schematic Diagram (N-Channel)



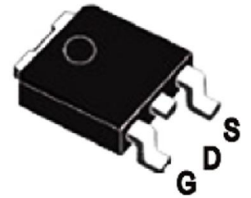
## PRODUCT SUMMARY

$V_{DS}$	650	V
$I_D$	2.0	A
$P_D(T_C=25^\circ\text{C})$	44	W
$R_{DS(ON)}$	5.0	$\Omega$

## TO-251



## TO-252



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

$T_C = 25^\circ\text{C}$  unless otherwise specified

Symbol	Parameter	Rating	Units
$V_{DS}$	Drain-source Voltage	650	V
$I_D$	Continuous Drain Current $T_C=25^\circ\text{C}$	2.0*	A
	Continuous Drain Current $T_C = 100^\circ\text{C}$	1.25*	A
$V_{GS}$	Gate-source Voltage	$\pm 30$	V
$I_{DM}$	Drain Current-Pulsed (1)	8.0*	A
$P_D$	Power Dissipation	44	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55-150	$^\circ\text{C}$
EAS	Single Pulse Avalanche Energy (2)	120	mJ

\*Drain current limited by maximum junction temperature

(1) Repetitive rating; Pulse width limited by maximum junction temperature

(2) Starting  $T_j=25^\circ\text{C}$ ,  $V_{DD}=50\text{V}$ ,  $L=56\text{mH}$ ,  $R_G=25\Omega$ ,  $I_{AS}=2.0\text{A}$

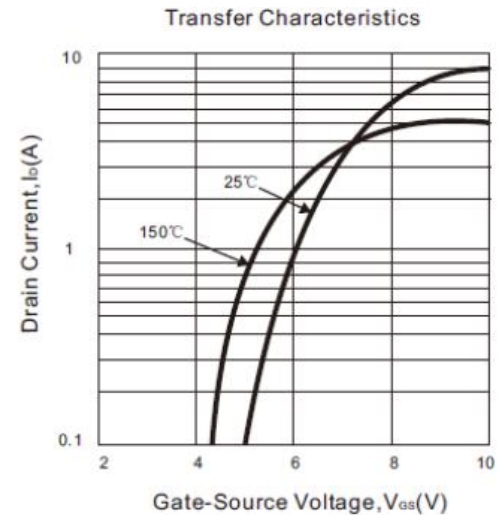
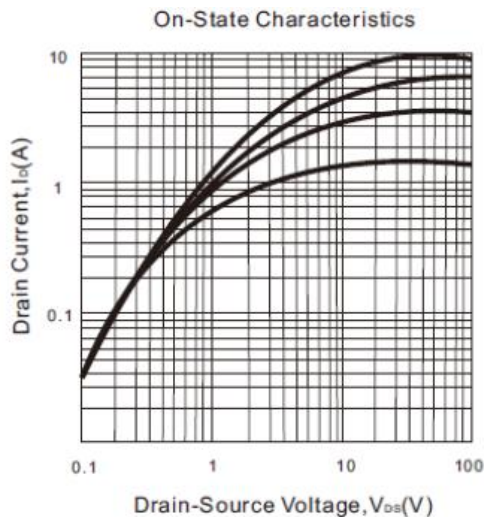
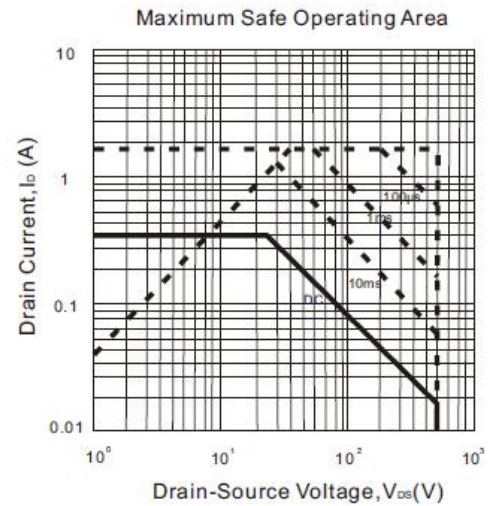
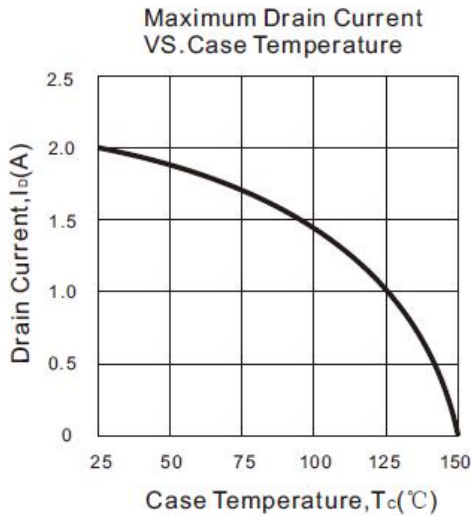
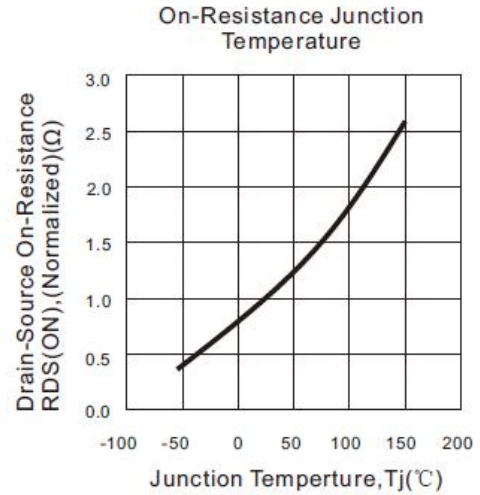
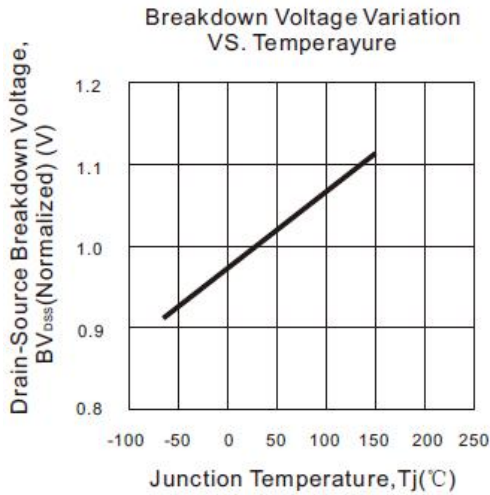
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## KT2N65

### N-Channel Power MOSFET

## RATING AND CHARACTERISTIC CURVES



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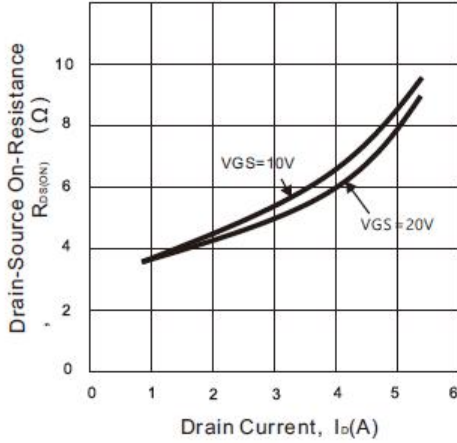


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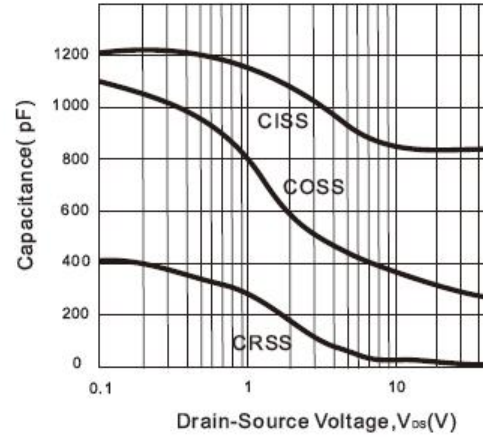
## KT2N65

### N-Channel Power MOSFET

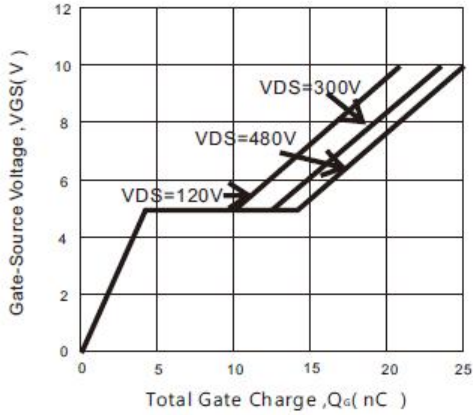
On-Resistance Variation vs. Drain Current and Gate Voltage



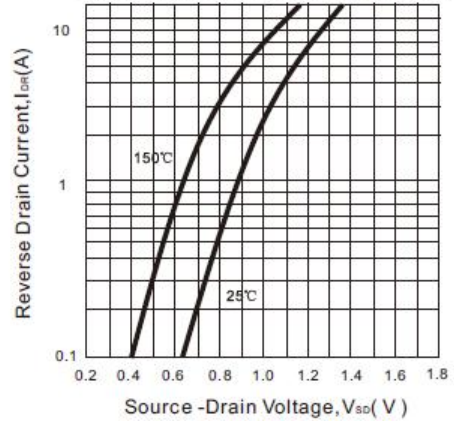
Capacitance Characteristics (Non-Repetitive)



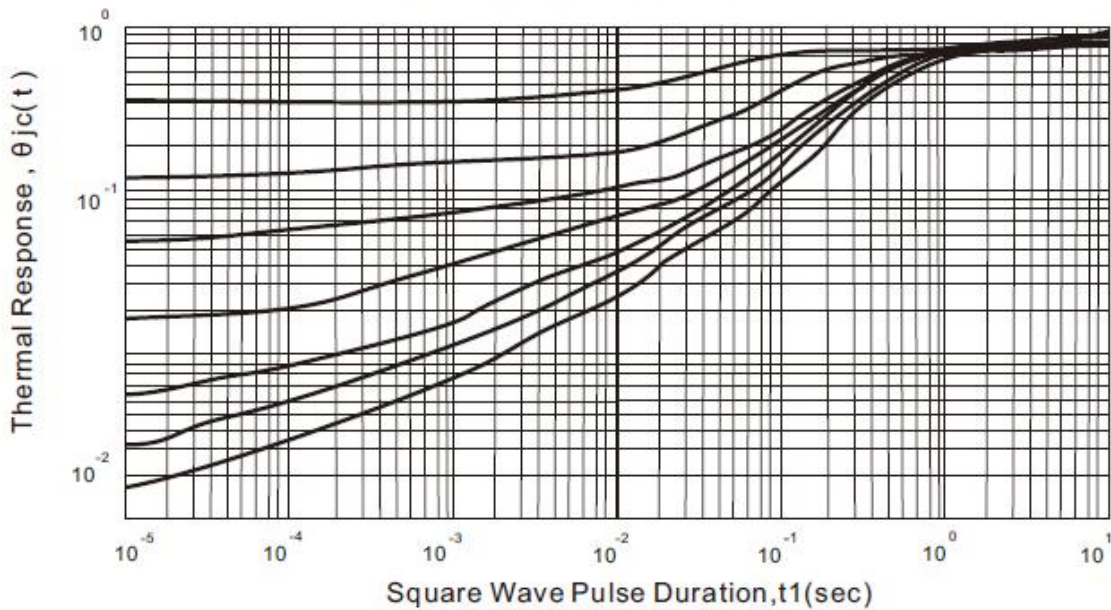
Gate Charge Characteristics



Body Diode Forward Voltage Variation With Source Current and Temperature



Transient Thermal Response Curve



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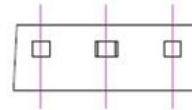
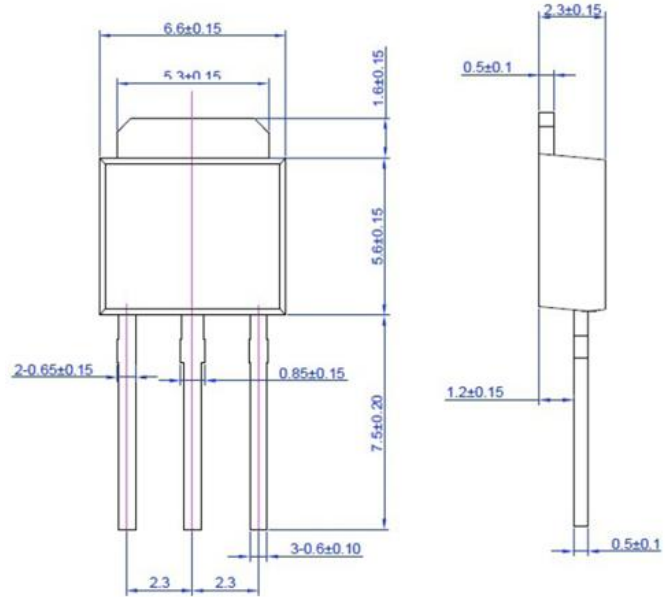
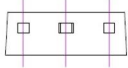
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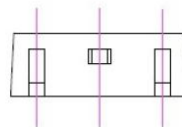
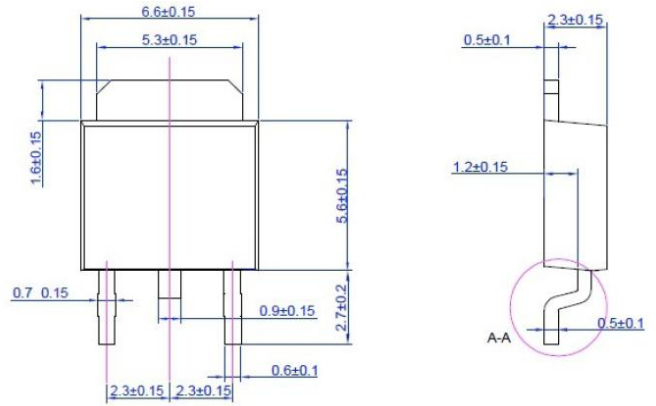
### N-Channel Power MOSFET

#### Package Dimensions

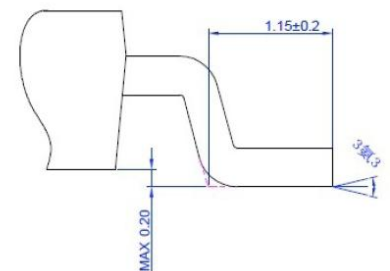
#### TO-251



#### TO-252



A-A



Notes: Specifications are subject to change without notice.

**Kingtronics® International Company**

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