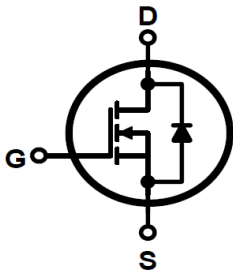


**Kingtronics**®**KT12N65**

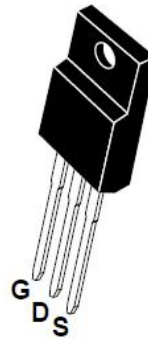
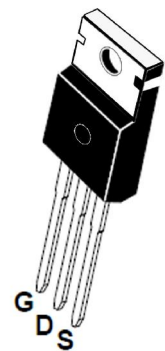
N-Channel Power MOSFET

**FEATURES**

LOW ON-RESISTANCE  
FAST SWITCHING  
HIGH INPUT RESISTANCE  
ROHS COMPLIANT

**Schematic Diagram (N-Channel)****PRODUCT SUMMARY**

$V_{DSS}$	650	V
$I_D$	12.0	A
$P_D(T_C=25^\circ\text{C})$	70	W
$R_{DS(ON)}$	0.55	$\Omega$

**TO-220F****TO-220****MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS** $T_C = 25^\circ\text{C}$  unless otherwise specified

Parameter	Symbol	Rating	Units
Drain-source Voltage	$V_{DS}$	650	V
Gate-source Voltage	$V_{GS}$	$\pm 30$	V
Continuous Drain Current $T_C=25^\circ\text{C}$	$I_D$	12.0*	A
Continuous Drain Current $T_C=100^\circ\text{C}$	$I_D$	7.2*	A
Drain Current-Pulsed ①	$I_{DM}$	48*	A
Power Dissipation	$P_D$	70	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 to 150	$^\circ\text{C}$
Single Pulse Avalanche Energy ②	$E_{AS}$	405	mJ

\*Drain current limited by maximum junction temperature

① Repetitive rating: Pulse width limited by maximum junction temperature

② Starting  $T_j=25^\circ\text{C}$ ,  $V_{DD}=50\text{V}$ ,  $L=10\text{mH}$ ,  $R_G=25\Omega$ ,  $I_{AS}=9.0\text{A}$ **Kingtronics**® International CompanyWebsite: [www.kingtronics.com](http://www.kingtronics.com)Email: [info@kingtronics.com](mailto:info@kingtronics.com)

Tel: (852) 8106 7033

Fax: (852) 8106 7099

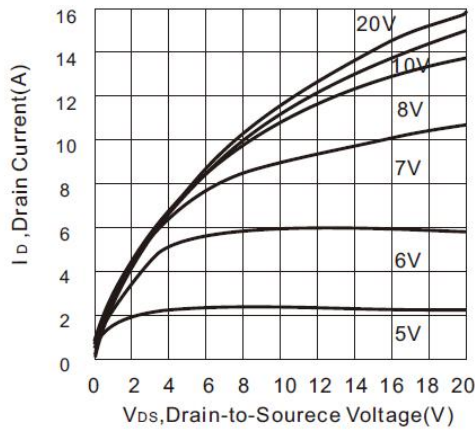
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# KT12N65

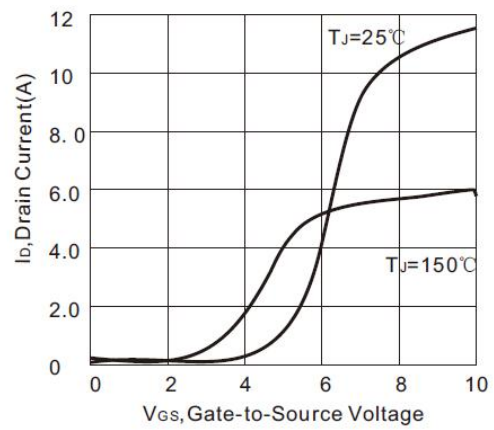
## N-Channel Power MOSFET

### RATING AND CHARACTERISTIC CURVES

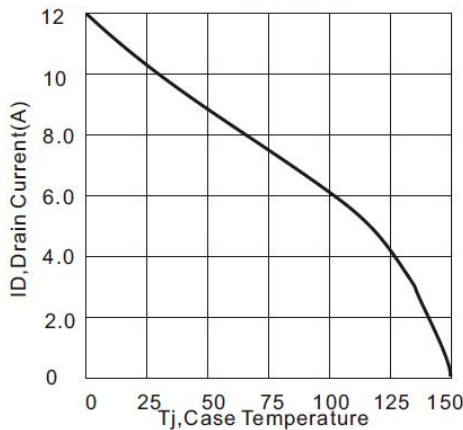
Output Characteristics



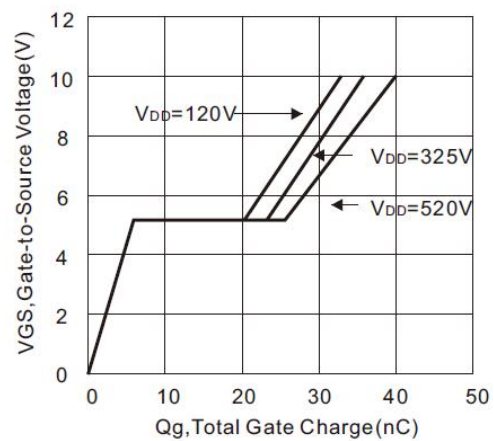
Transfer Characteristics



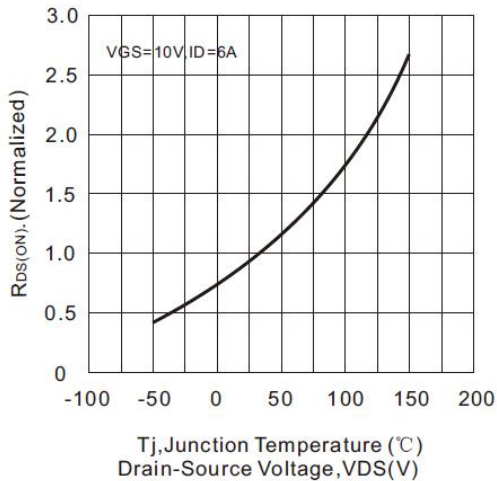
Drain Current VS. Temperature



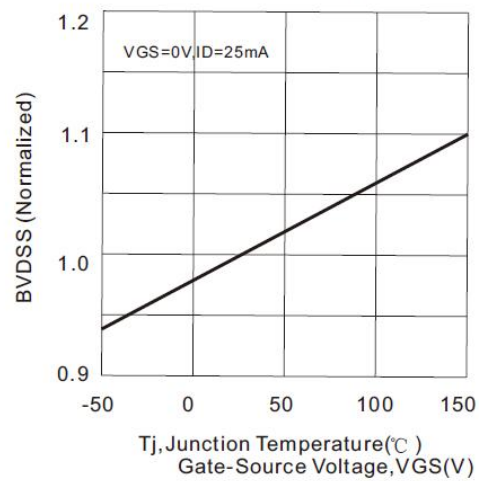
Gate Charge



On-Resistance vs. Junction Temperature



BVDS Variation VS. Temperature



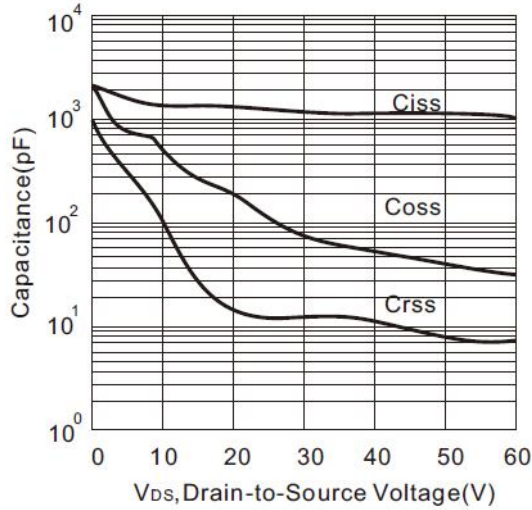
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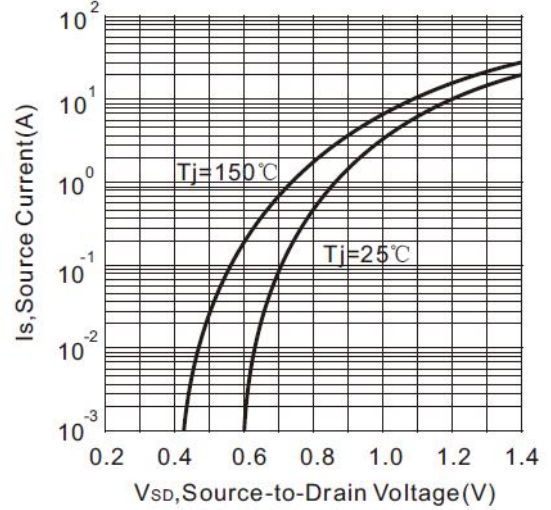
## KT12N65

N-Channel Power MOSFET

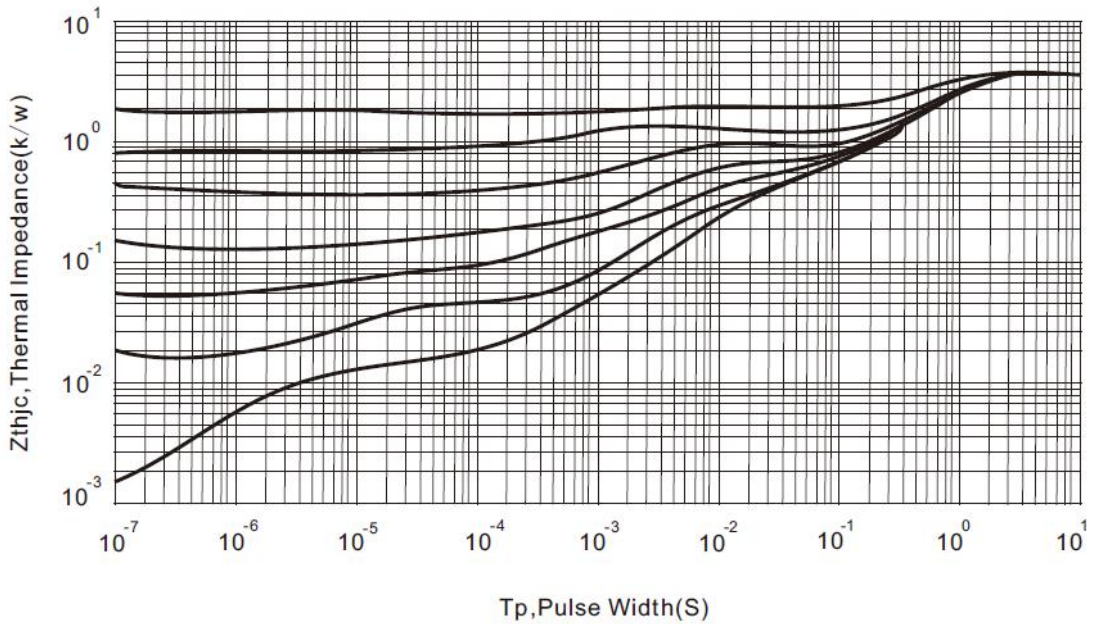
Capacitance



Body Diode Forward Voltage



Transient Thermal Impedance



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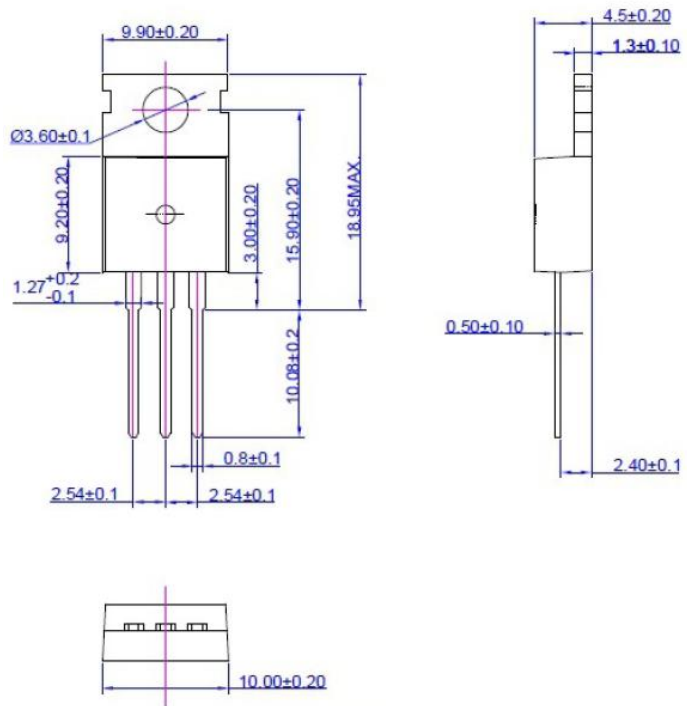
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## KT12N65

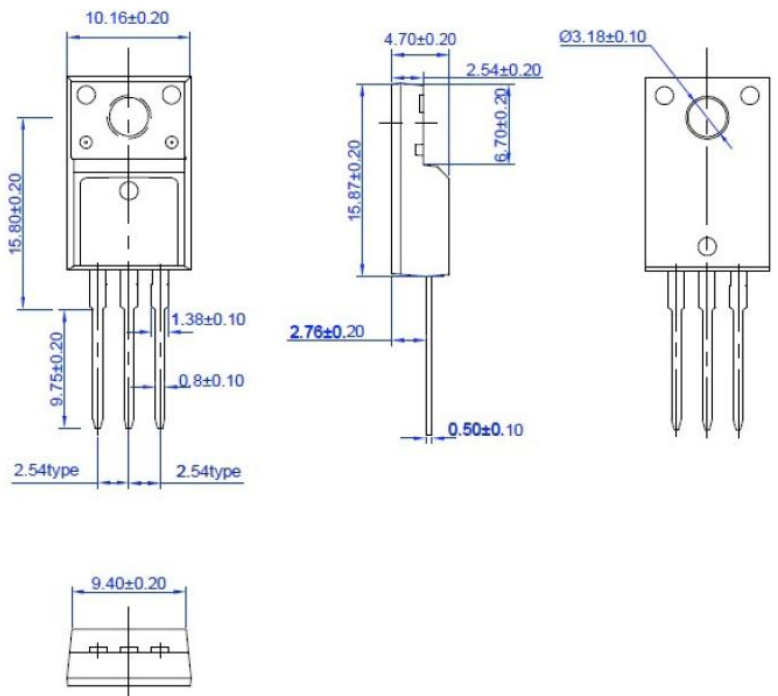
### N-Channel Power MOSFET

## Package Dimensions

### TO-220



### TO-220F



Notes: Specifications are subject to change without notice.

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