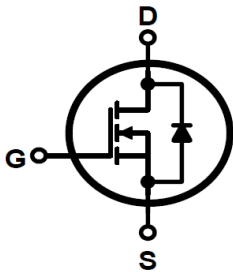


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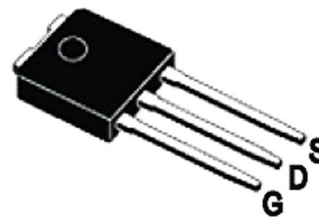
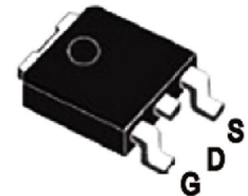
N-Channel Power MOSFET

FEATURES

Fast Switching
 Low ON Resistance
 Low Gate Charge
 Low Reverse transfer capacitances
 100%Single Pulse avalanche energy Test

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

V_{DSS}	650	V
I_D	7.0	A
$P_D(T_C=25^\circ\text{C})$	70	W
$R_{DS(ON)MAX}$	1.4	Ω

TO-251**TO-252****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}	± 30	V
Drain Current	I_D	$T_C=25^\circ\text{C}$	7.0
		$T_C=100^\circ\text{C}$	4.4
Drain Current-Pulsed	I_{DM}	28	A
Power Dissipation($T_C=25^\circ\text{C}$) -Derate above 25°C	P_D	70	W
		0.56	W/ $^\circ\text{C}$
Single Pulsed Avalanche Energy(Note 1)	E_{AS}	375	mJ
Operation Junction Temperature Range	T_J	-55 to 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to 150	$^\circ\text{C}$

Notes: 1. $L=30\text{mH}$, $I_{AS}=5\text{ A}$, $V_{DD}=800\text{V}$, $R_G=25\Omega$, starting $T_J=25^\circ\text{C}$;**Kingtronics**® International CompanyWebsite: www.kingtronics.com Email: info@kingtronics.com Tel: (852) 8106 7033 Fax: (852) 8106 7099

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N-Channel Power MOSFET

RATING AND CHARACTERISTIC CURVES

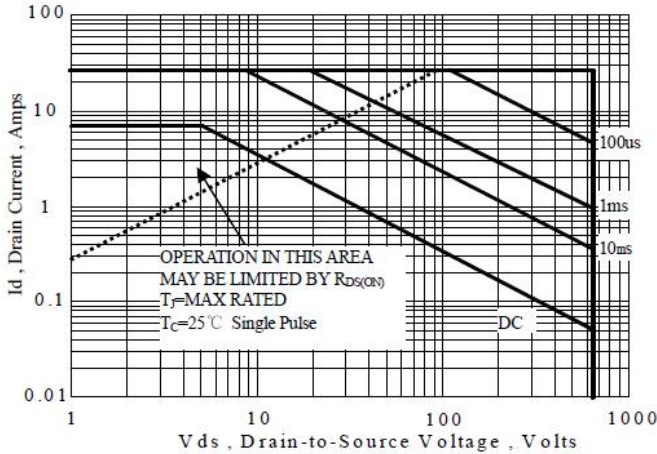


Figure 1 Maximum Forward Bias Safe Operating Area

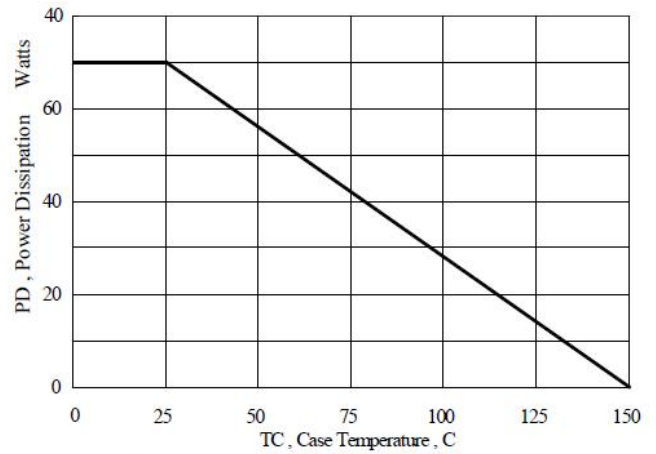


Figure 2 Maximum Power Dissipation vs Case Temperature

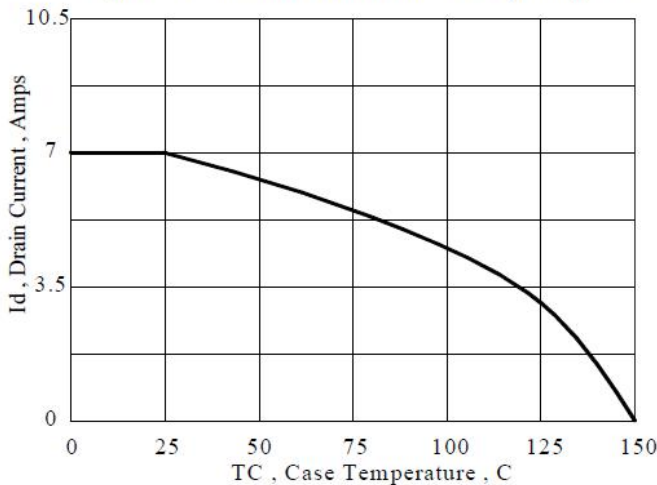


Figure 3 Maximum Continuous Drain Current vs Case Temperature

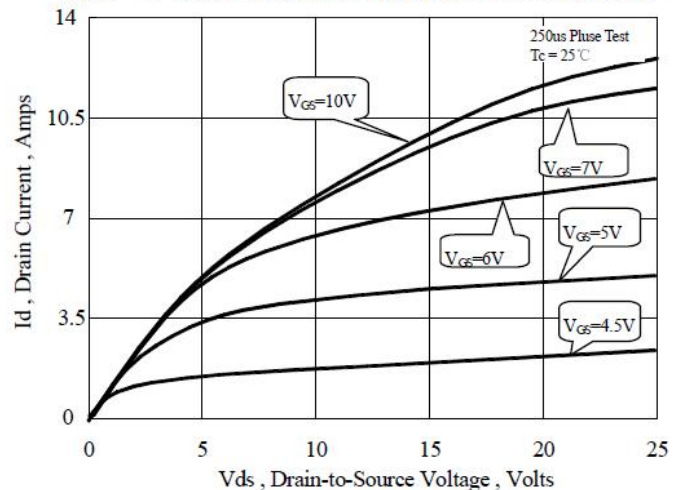


Figure 4 Typical Output Characteristics

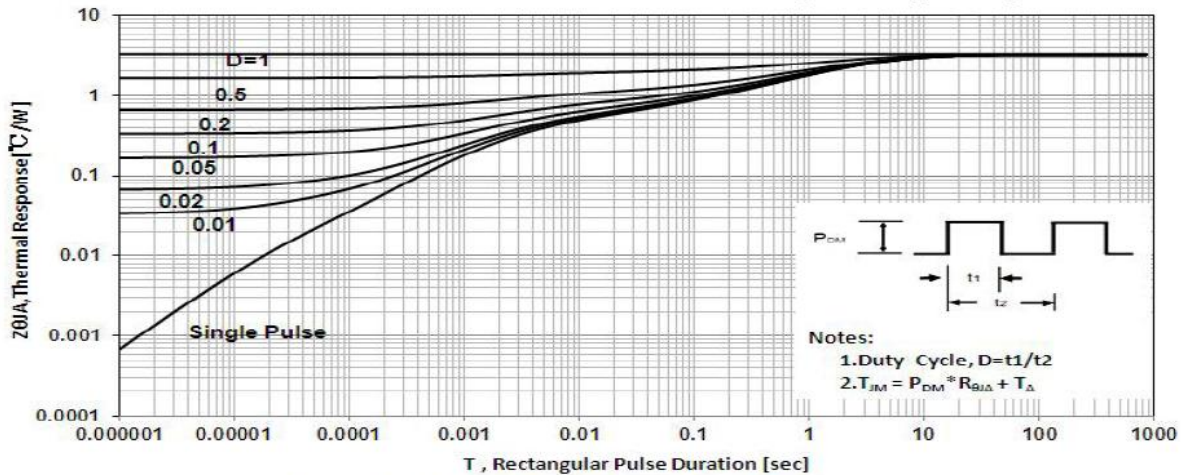


Figure 5 Maximum Effective Thermal Impedance Function to Case

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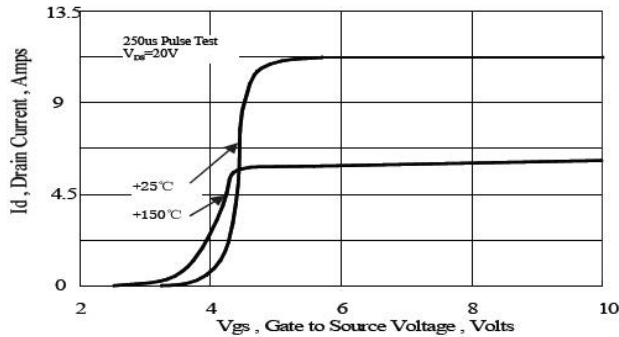


Figure 6 Typical Transfer Characteristics

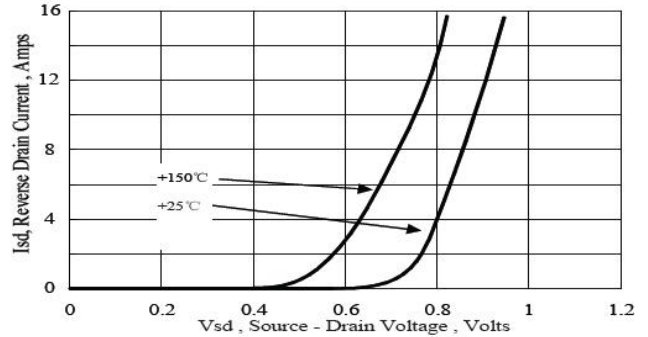


Figure 7 Typical Body Diode Transfer Characteristics

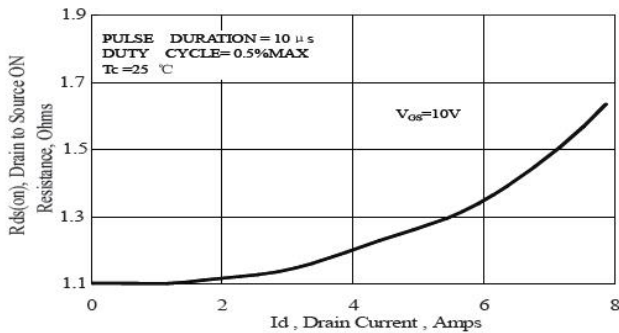


Figure 8 Typical Drain to Source ON Resistance vs Drain Current

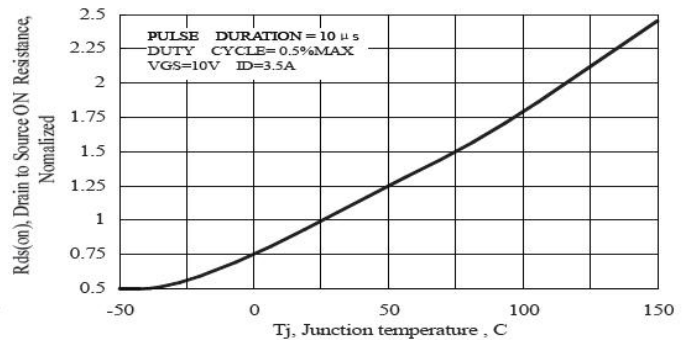


Figure 9 Typical Drain to Source ON Resistance vs Junction Temperature

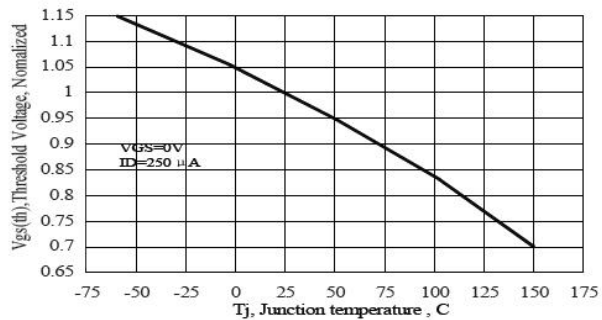


Figure 10 Typical Threshold Voltage vs Junction Temperature

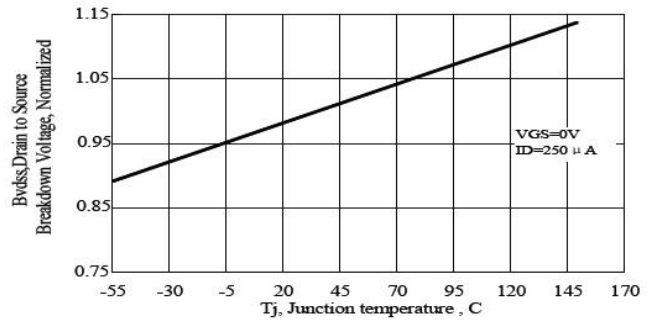


Figure 11 Typical Breakdown Voltage vs Junction Temperature

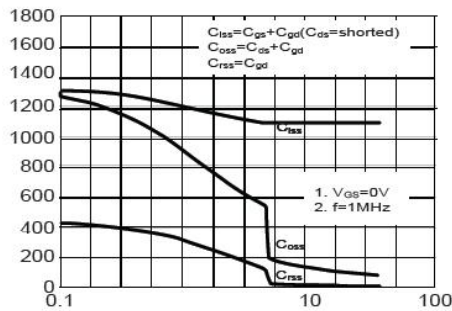


Figure 12 Typical Capacitance vs Drain to Source Voltage

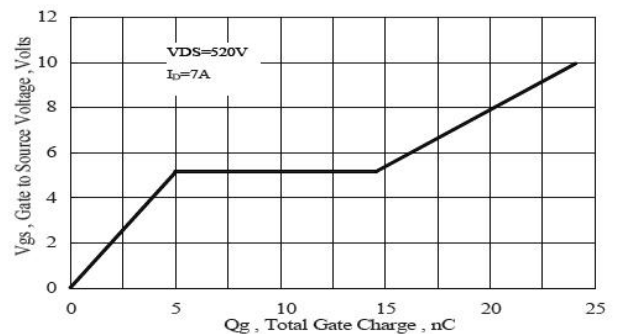


Figure 13 Typical Gate Charge vs Gate to Source Voltage

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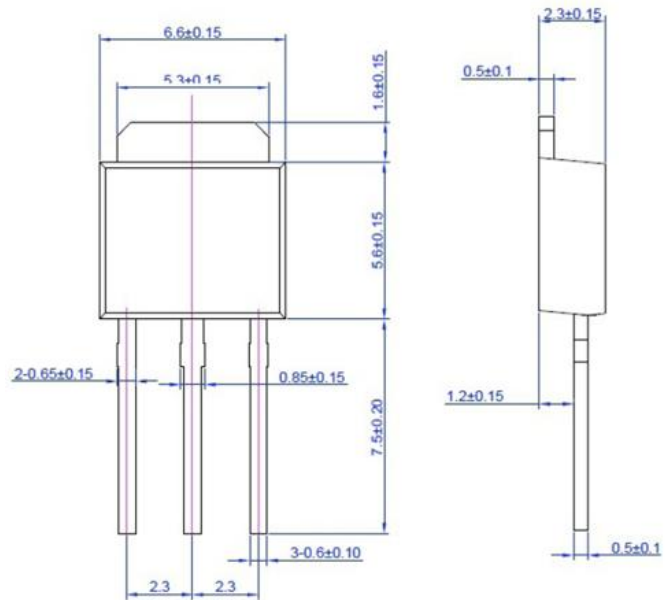
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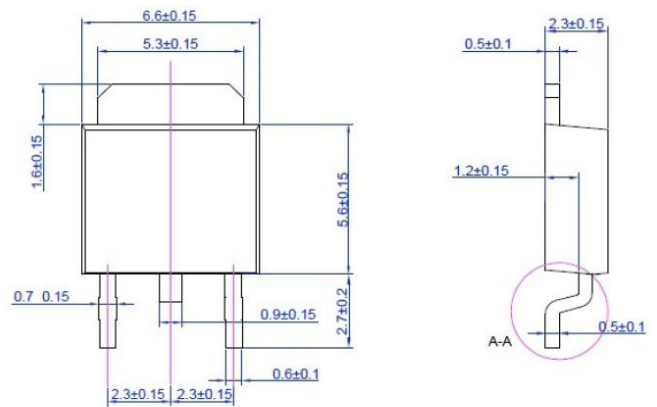
N-Channel Power MOSFET

Package Dimensions

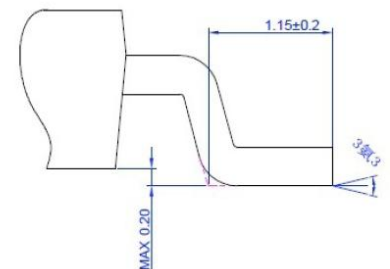
TO-251



TO-252



A-A



Notes: Specifications are subject to change without notice.

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