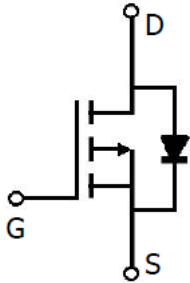


**Kingtronics**®**KT3401**

P-Channel Power MOSFET

**FEATURES**

$V_{DS} = -30V$   
 $I_D = -4.2 A (V_{GS} = -10V)$   
 $R_{DS(ON)} < 50m\Omega (V_{GS} = -10V)$   
 $R_{DS(ON)} < 65m\Omega (V_{GS} = -4.5V)$   
 $R_{DS(ON)} < 120m\Omega (V_{GS} = -2.5V)$

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

$V_{DS}$	30	V
$I_D$	-4.2	A
$P_D(T_C=25^\circ C)$	1.4	W
$R_{DS(ON)} (V_{GS} = -10V)$	<50	m $\Omega$
$R_{DS(ON)} (V_{GS} = -4.5V)$	<65	m $\Omega$
$R_{DS(ON)} (V_{GS} = -2.5V)$	<120	m $\Omega$

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

$T_C = 25^\circ C$  unless otherwise specified

Symbol	Parameter	Rating	Units
$V_{DS}$	Drain-Source Voltage	-30	V
$V_{GS}$	Gate-Source Voltage	$\pm 12$	V
$I_D$	Continuous Drain Current $T_A = 25^\circ C$	-4.2	A
	Continuous Drain Current *1 $T_A = 70^\circ C$	-3.5	A
$I_{DM}$	Pulsed Drain Current *2	-30	A
$P_D$	Power Dissipation *1 $T_A=25^\circ C$	1.4	W
	Power Dissipation $T_A=70^\circ C$	1	W
$T_J, T_{STG}$	Junction and Storage Temperature Range	-55 to 150	$^\circ C$

\*1 The value of  $R_{\theta JA}$  is measured with the device mounted on 1in<sup>2</sup> FR-4 board with 2oz.

Copper, in a still air environment with  $T_A = 25^\circ C$

\*2 Repetitive rating, pulse width limited by junction temperature.

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# Kingtronics®

# KT3401

## P-Channel Power MOSFET

### RATING AND CHARACTERISTIC CURVES

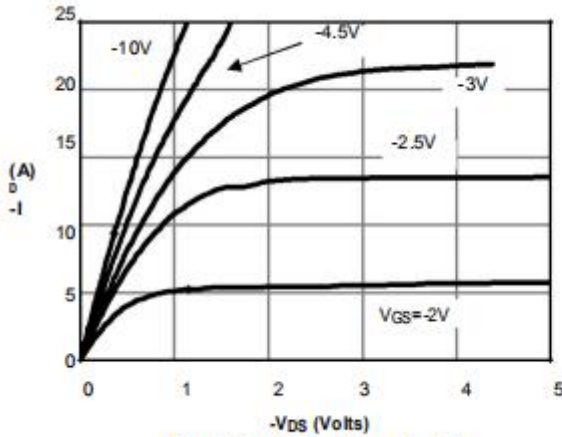


Figure 1: On-Region Characteristics

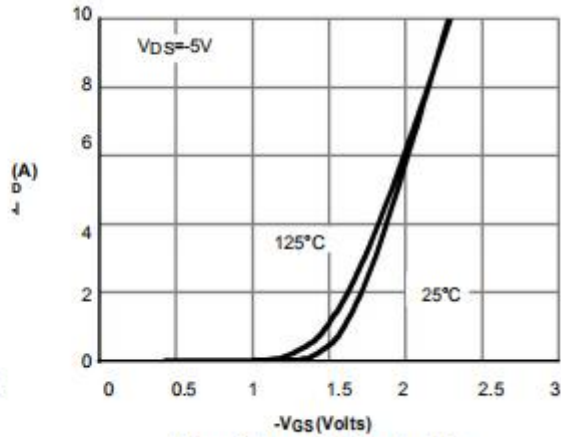


Figure 2: Transfer Characteristics

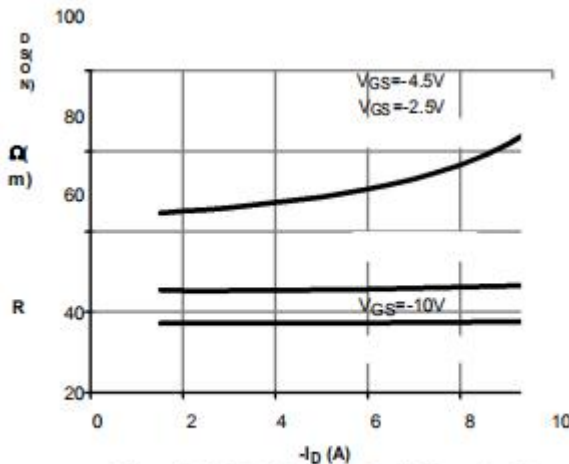


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

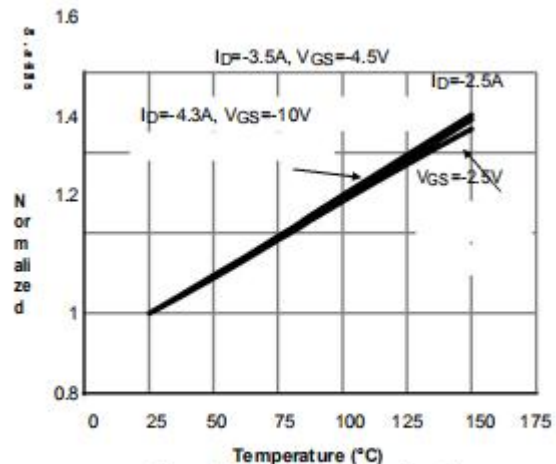


Figure 4: On-Resistance vs. Junction Temperature

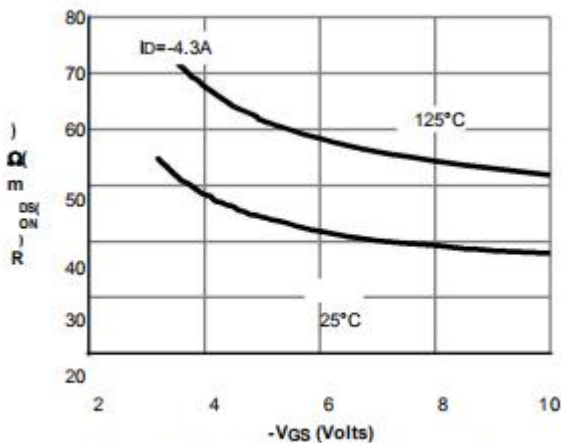


Figure 5: On-Resistance vs. Gate-Source Voltage

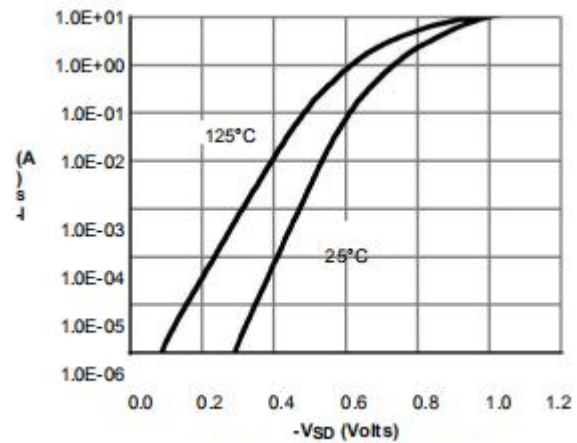


Figure 6: Body-Diode Characteristics

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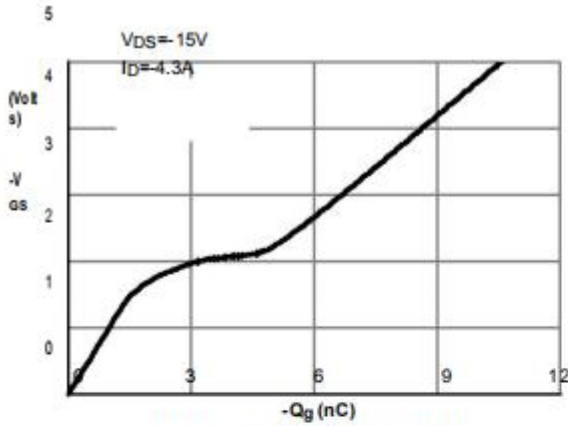


Figure 7: Gate-Charge Characteristics

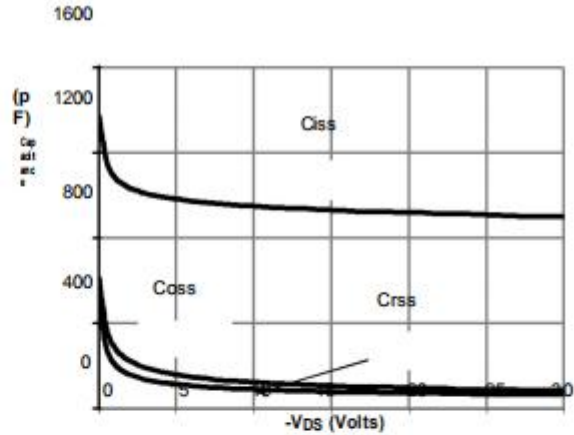


Figure 8: Capacitance Characteristics

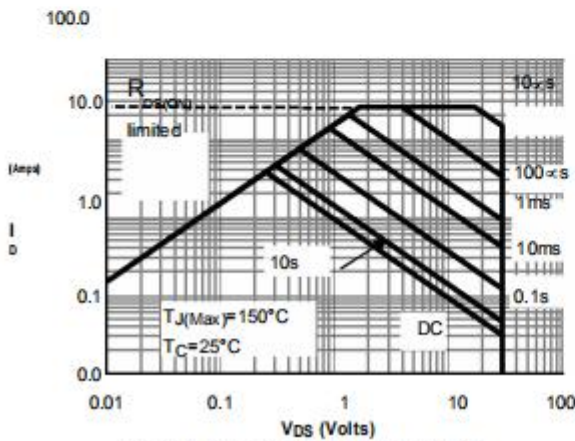


Figure 9: Maximum Forward Biased Safe Operating Area (Note F)

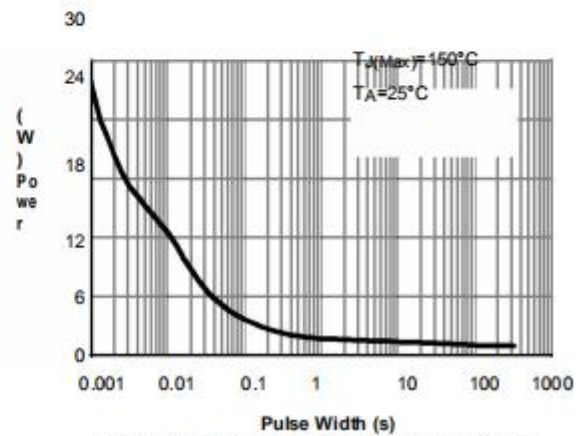


Figure 10: Single Pulse Power Rating Junction-to-Ambient (Note E)

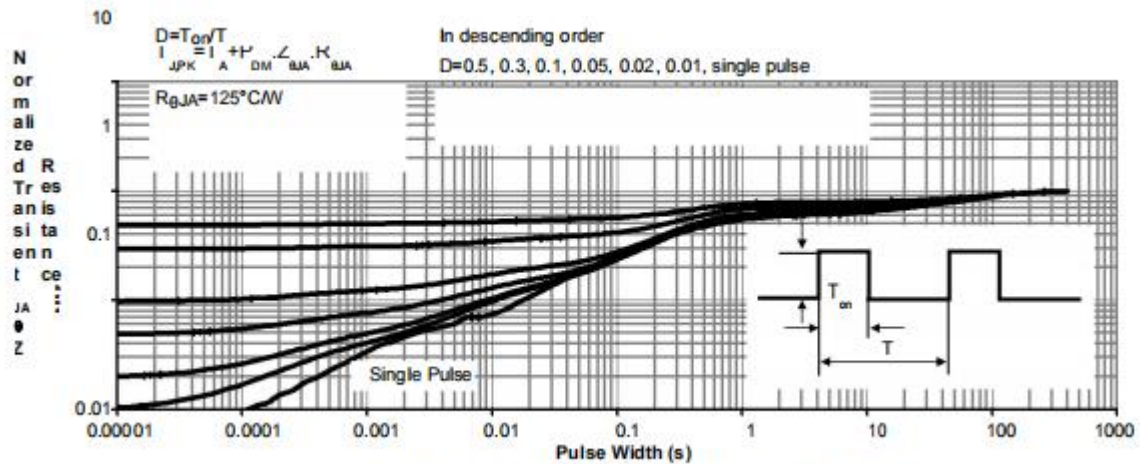


Figure 11: Normalized Maximum Transient Thermal Impedance

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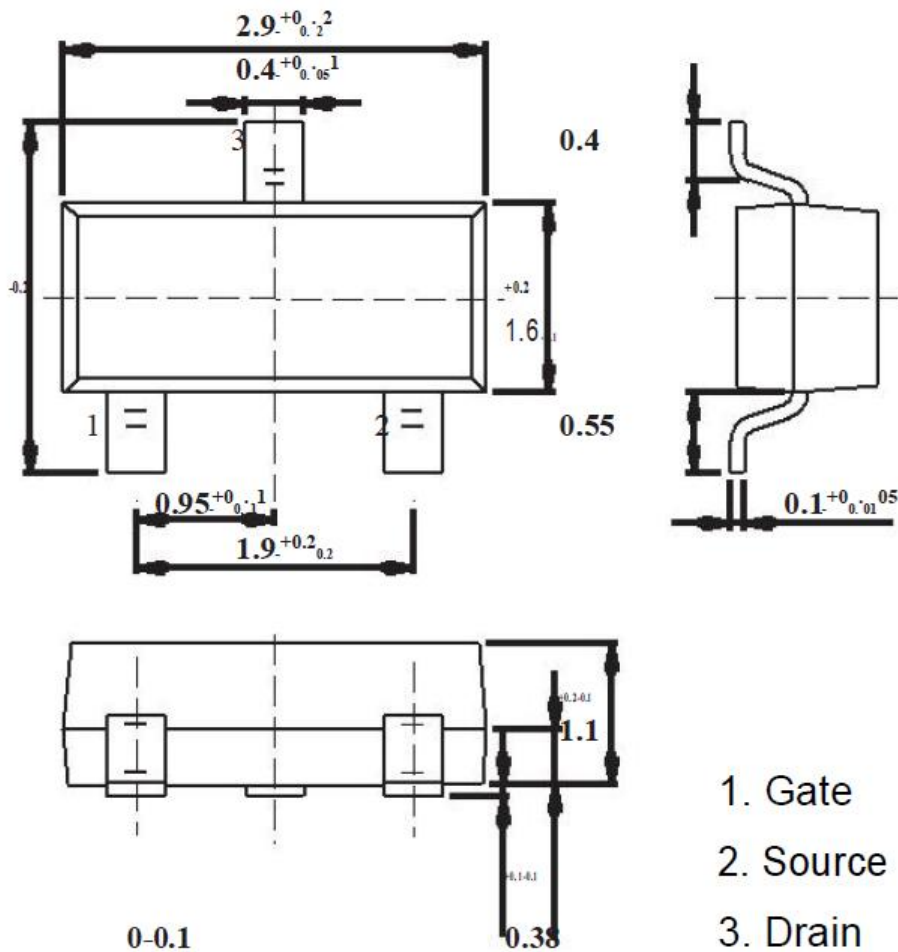
## KT3401

P-Channel Power MOSFET

### Package Dimension

### SOT-23-3

Unit: mm



Notes: Specifications are subject to change without notice.

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