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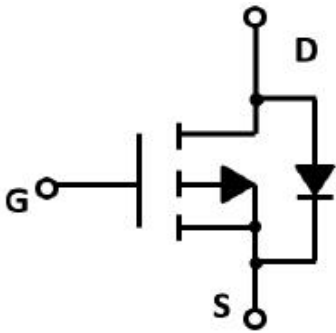
KT2301

P-Channel Power MOSFET

FEATURES

- Trench Power LV MOSFET technology
- High Power and Current handing capability
- Low Gate Charge

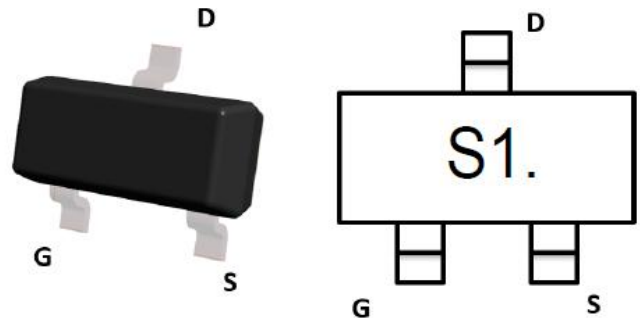
Schematic Diagram (P-Channel)



PRODUCT SUMMARY

V_{DS}	-20	V
I_D	-3.4	A
$R_{DS(ON)}$ (at $V_{GS} = -4.5V$)	<64	mohm
$R_{DS(ON)}$ (at $V_{GS} = -2.5V$)	<80	mohm
$R_{DS(ON)}$ (at $V_{GS} = -1.8V$)	<110	mohm

SOT-23



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Symbol	Parameter	Rating	Units
V_{DS}	Drain Source Voltage	-20	V
V_{GS}	Gate-source Voltage	± 10	V
I_D	Drain Current $T_A = 25^\circ\text{C}$	-3.4	A
	Drain Current $T_A = 70^\circ\text{C}$	-2.7	A
I_{DM}	Pulsed Drain Current ^A	-14	A
P_D	Total Power Dissipation @ $T_A=25^\circ\text{C}$	1	W
$R_{\theta JA}$	Thermal Resistance Junction-to-Ambient ^B	125	$^\circ\text{C}/\text{W}$
T_J, T_{STG}	Junction and Storage Temperature Range	-55~+150	$^\circ\text{C}$

A. Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty cycle $\leq 2\%$.

B. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch.

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RATING AND CHARACTERISTIC CURVES

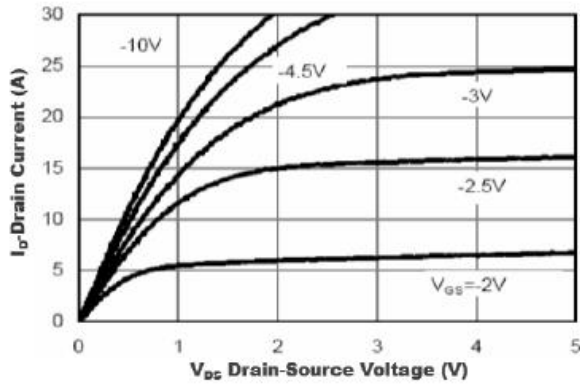


Figure1. Output Characteristics

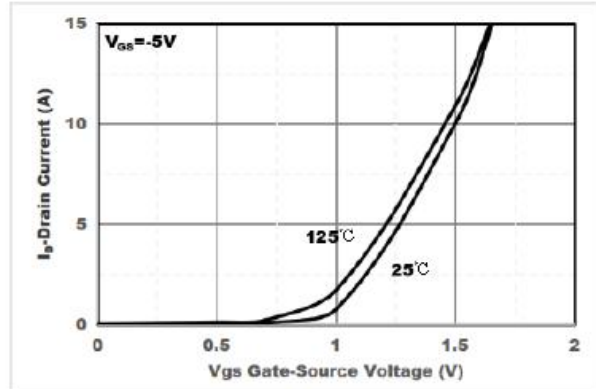


Figure2. Transfer Characteristics

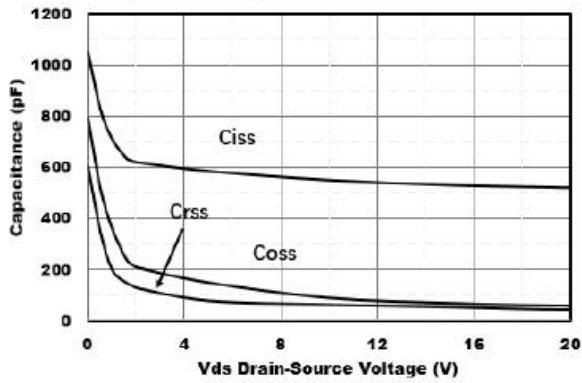


Figure3. Capacitance Characteristics

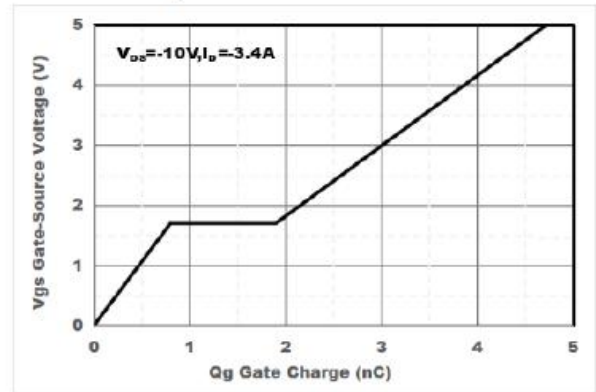


Figure4. Gate Charge

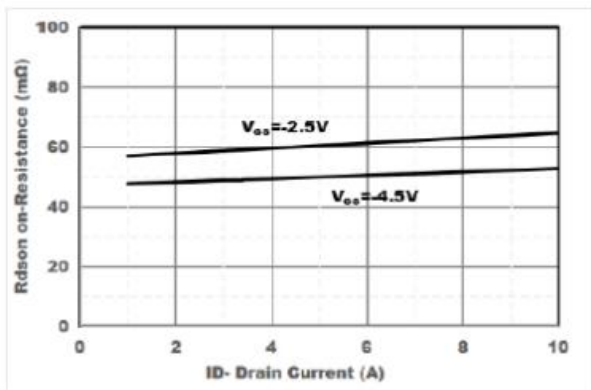


Figure5. Drain-Source on Resistance

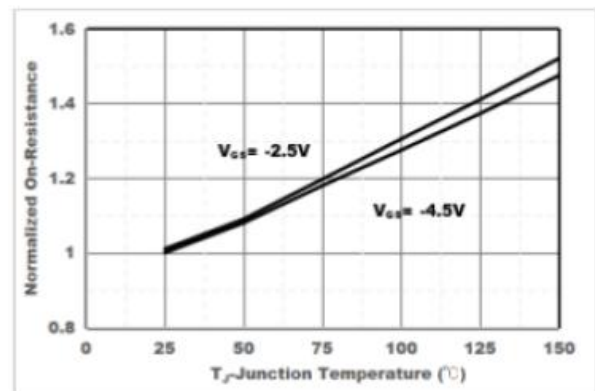


Figure6. Drain-Source on Resistance

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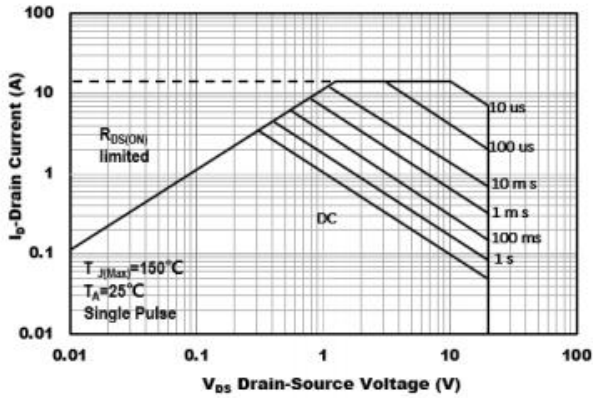


Figure7. Safe Operation Area

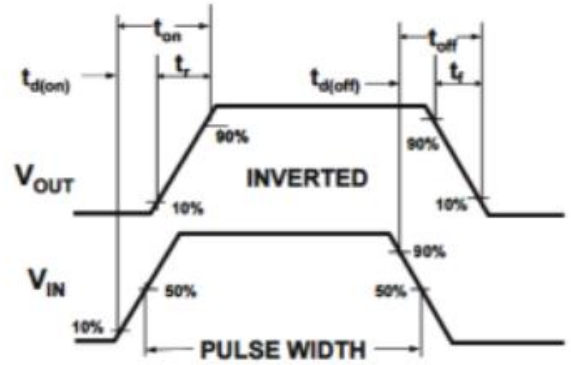


Figure8. Switching wave

Notes: Specifications are subject to change without notice.

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