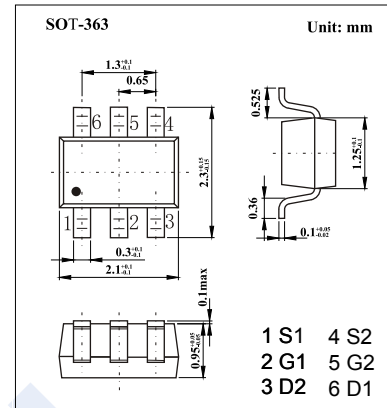
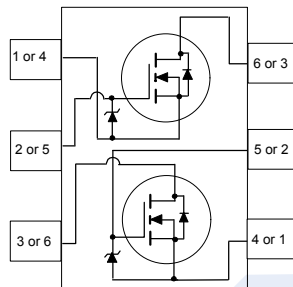


## Dual N-Channel MOSFET

### FDG6301N (KDG6301N)

#### ■ Features

- $V_{DS} (V) = 25V$
- $I_D = 220m A (V_{GS} = 4.5V)$
- $R_{DS(ON)} < 4 \Omega (V_{GS} = 4.5V)$
- $R_{DS(ON)} < 5 \Omega (V_{GS} = 2.7V)$
- Gate-Source Zener for ESD ruggedness  
( $>6kV$  Human Body Model).



#### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit	
Drain-Source Voltage	$V_{DS}$	25	V	
Gate-Source Voltage	$V_{GS}$	$\pm 8$		
Continuous Drain Current	$I_D$	Continuous	220	mA
		Pulsed	650	
Electrostatic Discharge Rating MIL-STD-883D Human Body Model(100 pF / 1500 W)	ESD	6	KV	
Power Dissipation	$P_D$	300	mW	
Thermal Resistance.Junction- to-Ambient	$R_{thJA}$	415	$^\circ C/W$	
Junction Temperature	$T_J$	150	$^\circ C$	
Storage Temperature Range	$T_{stg}$	-55 to 150		



## Dual N-Channel MOSFET FDG6301N (KDG6301N)

### Typical Characteristics

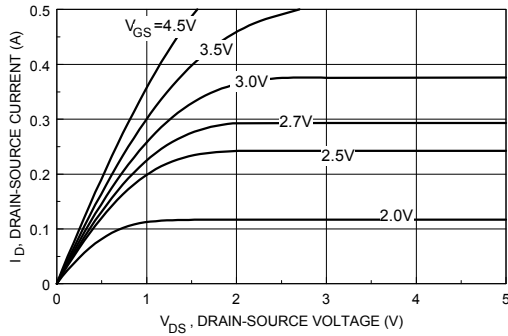


Figure 1. On-Region Characteristics.

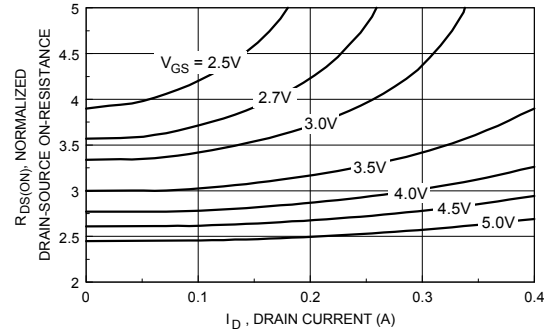


Figure 2. On-Resistance Variation with Drain Current and Gate Voltage.

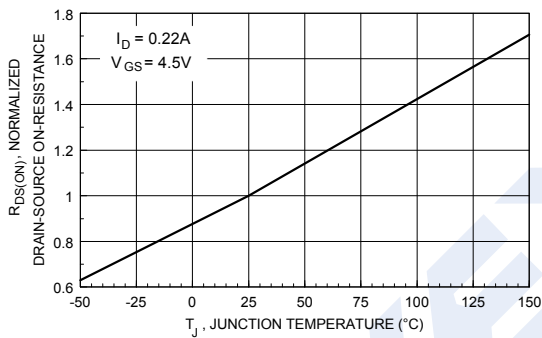


Figure 3. On-Resistance Variation with Temperature.

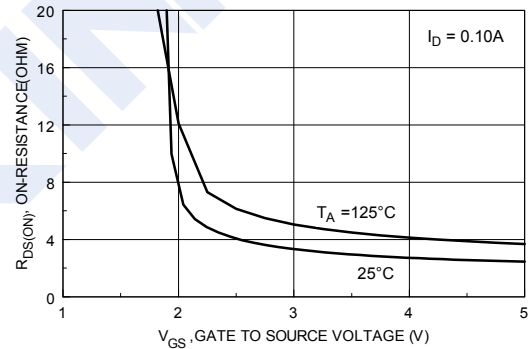


Figure 4. On-Resistance Variation with Gate-to-Source Voltage.

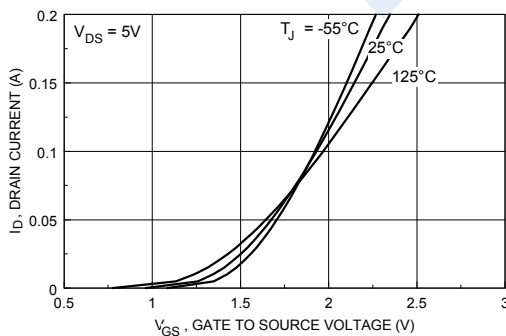


Figure 5. Transfer Characteristics.

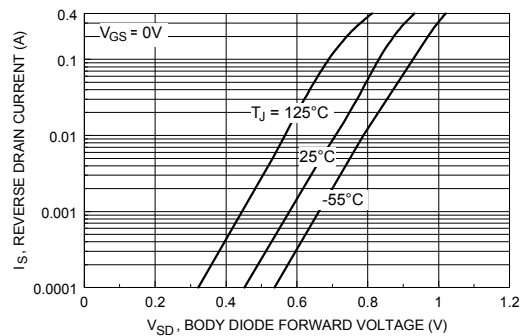


Figure 6. Body Diode Forward Voltage Variation with Source Current and Temperature.

## Dual N-Channel MOSFET FDG6301N (KDG6301N)

### Typical Characteristics

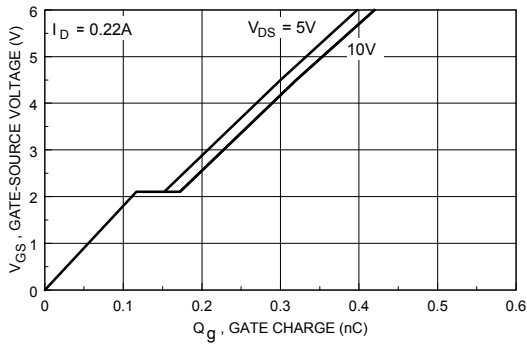


Figure 7. Gate Charge Characteristics.

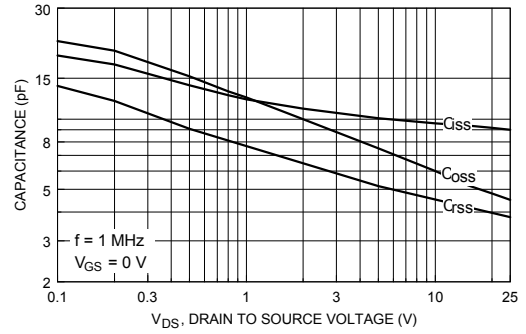


Figure 8. Capacitance Characteristics

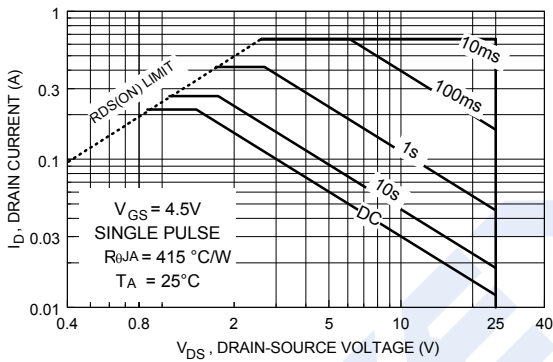


Figure 9. Maximum Safe Operating Area.

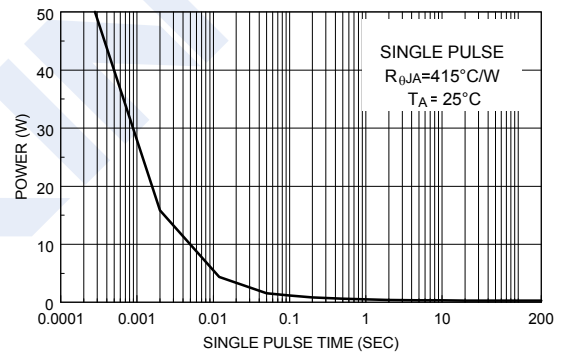


Figure 10. Single Pulse Maximum Power Dissipation.

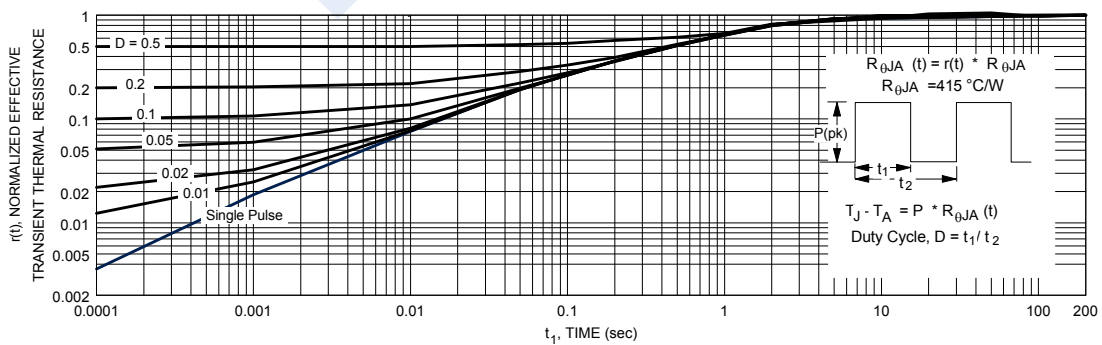


Figure 11. Transient Thermal Response Curve

Thermal characterization performed using the conditions described in note 1.  
Transient thermal response will change depending on the circuit board design.