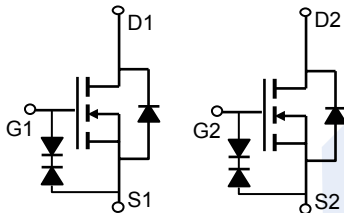
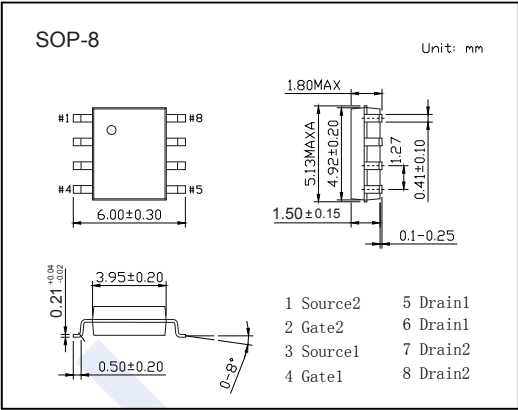


Dual N-Channel MOSFET

AO4806 (KO4806)

Features

- $V_{DS} (V) = 20V$
- $I_D = 9.4 A (V_{GS} = 10V)$
- $R_{DS(ON)} < 14m\Omega (V_{GS} = 10V)$
- $R_{DS(ON)} < 15m\Omega (V_{GS} = 4.5V)$
- $R_{DS(ON)} < 21m\Omega (V_{GS} = 2.5V)$
- $R_{DS(ON)} < 30m\Omega (V_{GS} = 1.8V)$
- ESD Rating: 2000V HBM



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 12	
Continuous Drain Current	I_D	9.4	A
		7.5	
Pulsed Drain Current	I_{DM}	40	
Power Dissipation	P_D	2	W
		1.28	
Thermal Resistance.Junction- to-Ambient	R_{thJA}	62.5	$^\circ C/W$
		110	
Thermal Resistance.Junction- to-Case	R_{thJC}	40	
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

Dual N-Channel MOSFET

AO4806 (KO4806)

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =250 μA, V _{GS} =0V	20			V
Gate-Source Breakdown Voltage	V _{GSO}	I _{DG} =±250 μA, V _{DS} =0V	±12			
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =16V, V _{GS} =0V			10	μA
		V _{DS} =16V, V _{GS} =0V, T _J =55℃			25	
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±10V			±10	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250 μA	0.5	0.75	1	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =10V, I _D =9.4A		11	14	mΩ
		V _{GS} =10V, I _D =9.4A, T _J =125℃		14.3	17	
		V _{GS} =4.5V, I _D =8A		12.6	16	
		V _{GS} =2.5V, I _D =6A		16.5	22	
		V _{GS} =1.8V, I _D =4A		23.4	30	
On State Drain Current	I _{D(ON)}	V _{GS} =4.5V, V _{DS} =5V	30			A
Forward Transconductance	g _{FS}	V _{DS} =5V, I _D =9.4A		37		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =10V, f=1MHz		1810		pF
Output Capacitance	C _{oss}			232		
Reverse Transfer Capacitance	C _{rss}			200		
Gate Resistance	R _g	V _{GS} =0V, V _{DS} =0V, f=1MHz		1.6		Ω
Total Gate Charge	Q _g	V _{GS} =4.5V, V _{DS} =10V, I _D =9.4A		17.9		nC
Gate Source Charge	Q _{gs}			1.5		
Gate Drain Charge	Q _{gd}			4.7		
Turn-On DelayTime	t _{d(on)}	V _{GS} =10V, V _{DS} =10V, R _L =1.1Ω, R _{GEN} =3Ω		3.3		ns
Turn-On Rise Time	t _r			5.9		
Turn-Off DelayTime	t _{d(off)}			44		
Turn-Off Fall Time	t _f			7.7		
Body Diode Reverse Recovery Time	t _{rr}	I _F =9.4A, di/dt=100A/μs		22		ns
Body Diode Reverse Recovery Charge	Q _{rr}			8.6		
Maximum Body-Diode Continuous Current	I _S				3	A
Diode Forward Voltage	V _{SD}	I _S =1A, V _{GS} =0V		0.72	1	V

■ Marking

Marking	4806 KA****
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Dual N-Channel MOSFET

AO4806 (KO4806)

■ Typical Characteristics

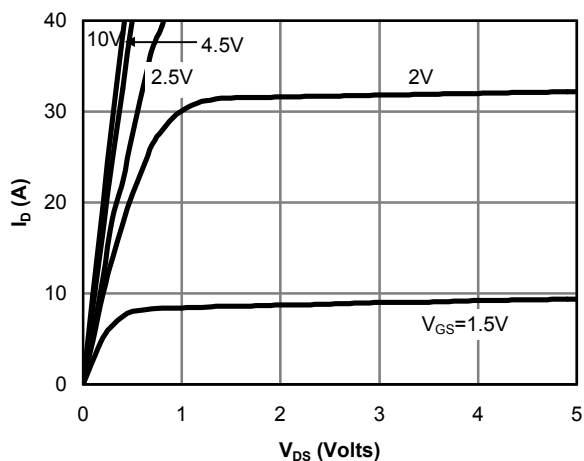


Fig 1: On-Region Characteristics

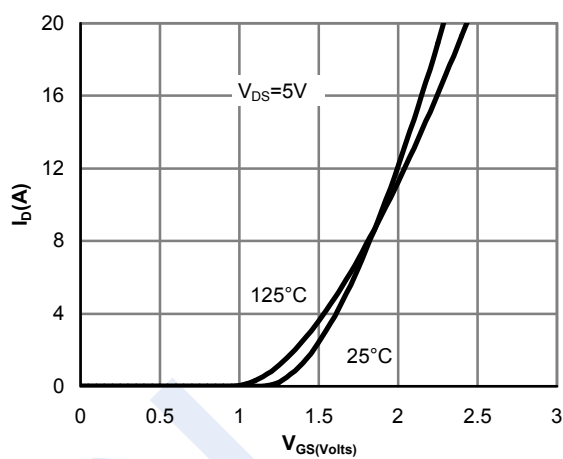


Figure 2: Transfer Characteristics

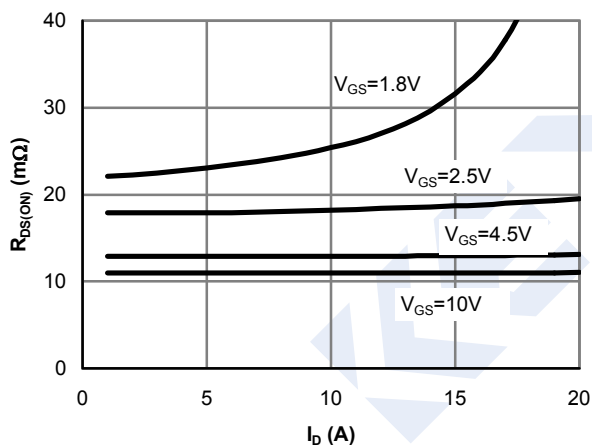


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

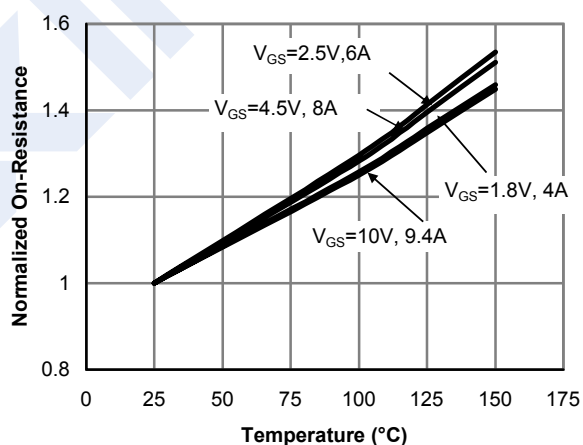


Figure 4: On-Resistance vs. Junction Temperature

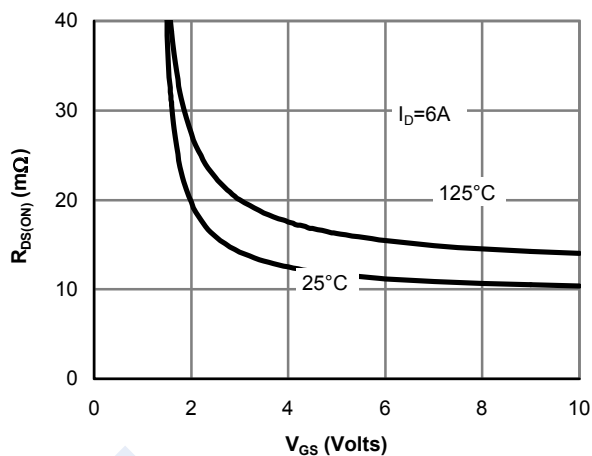


Figure 5: On-Resistance vs. Gate-Source Voltage

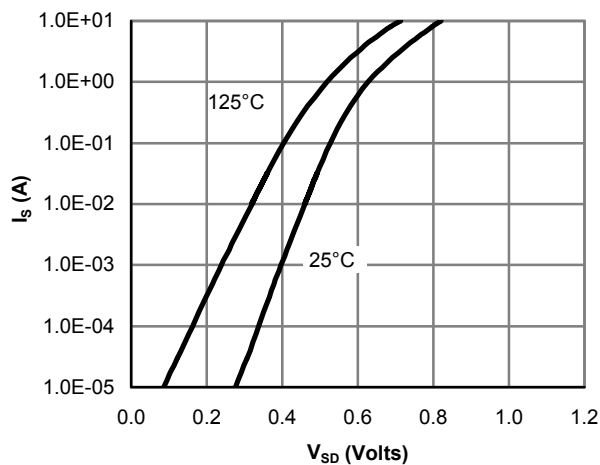


Figure 6: Body-Diode Characteristics

Dual N-Channel MOSFET

AO4806 (KO4806)

■ Typical Characteristics

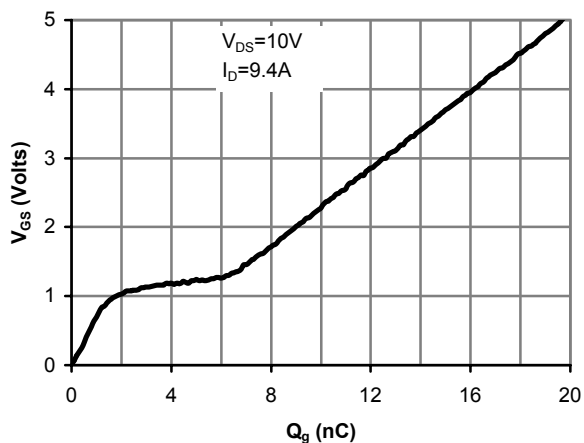


Figure 7: Gate-Charge Characteristics

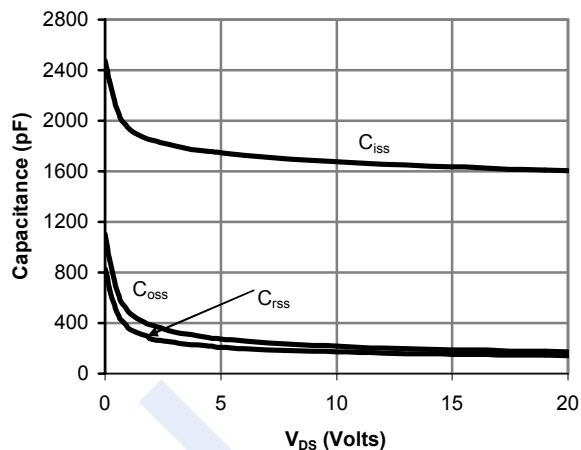


Figure 8: Capacitance Characteristics

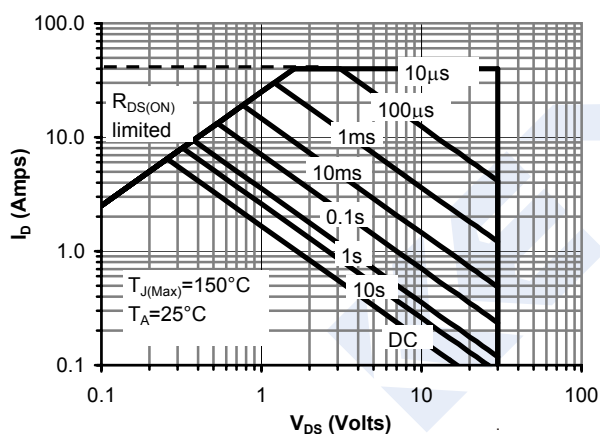


Figure 9: Maximum Forward Biased Safe Operating Area (Note E)

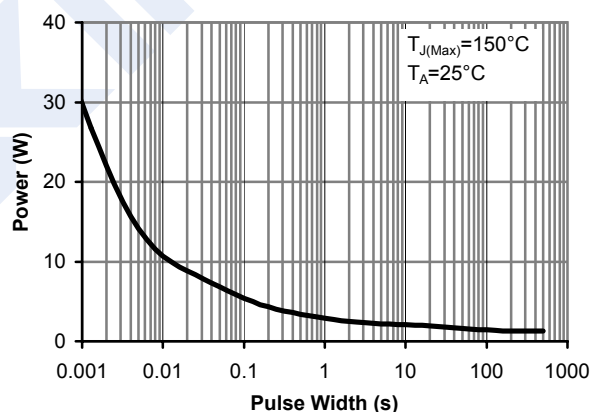


Figure 10: Single Pulse Power Rating Junction-to-Ambient (Note E)

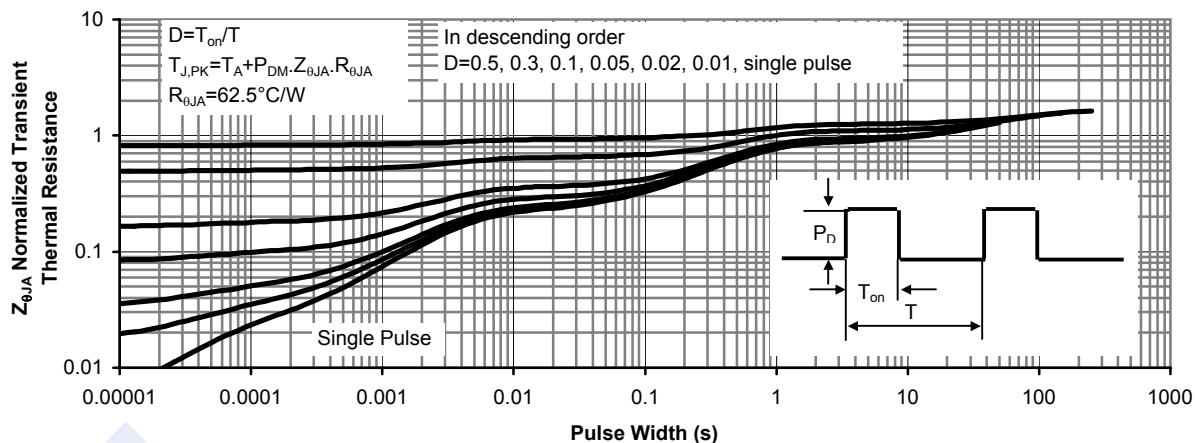


Figure 11: Normalized Maximum Transient Thermal Impedance