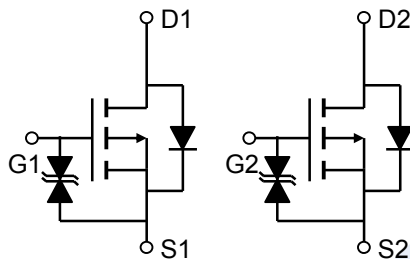
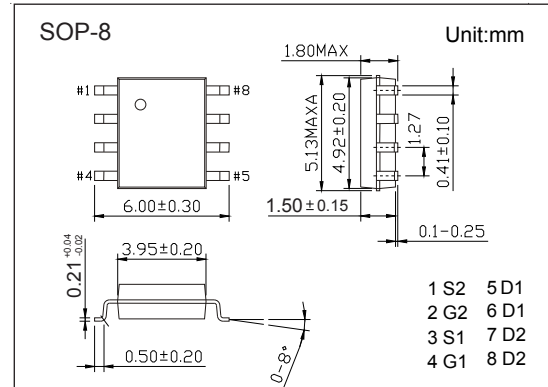


Dual P-Channel MOSFET

AO4815 (KO4815)

Features

- $V_{DS} (V) = -30V$
- $I_D = -8 A (V_{GS} = -20V)$
- $R_{DS(ON)} < 18m\Omega (V_{GS} = -20V)$
- $R_{DS(ON)} < 20m\Omega (V_{GS} = -10V)$
- ESD Rating: 2KV HBM



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	± 25	
Continuous Drain Current	I_D	$T_A=25^\circ C$	-8
		$T_A=70^\circ C$	-6.9
Pulsed Drain Current	I_{DM}	-40	A
Power Dissipation	P_D	$T_A=25^\circ C$	2
		$T_A=70^\circ C$	1.44
Thermal Resistance.Junction- to-Ambient	R_{thJA}	$t \leq 10s$	62.5
		Steady-State	110
Thermal Resistance.Junction- to-Lead	R_{thJL}	40	$^\circ C/W$
Junction Temperature	T_J	150	
Storage Temperature Range	T_{stg}	-55 to 150	$^\circ C$

Dual P-Channel MOSFET

AO4815 (K04815)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =-250 μA, V _{GS} =0V	-30			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-24V, V _{GS} =0V			-1	μA
		V _{DS} =-24V, V _{GS} =0V, T _J =55°C			-5	
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±25V			±1	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-1		-3	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =-20V, I _D =-8A			18	mΩ
		V _{GS} =-20V, I _D =-8A, T _J =125°C			24	
		V _{GS} =-10V, I _D =-8A			20	
		V _{GS} =-4.5V, I _D =-5A		37		
On State Drain Current	I _{D(ON)}	V _{GS} =-10V, V _{DS} =-5V	-40			A
Forward Transconductance	g _{FS}	V _{DS} =-5V, I _D =-8A		15		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =-15V, f=1MHz		2330	2900	pF
Output Capacitance	C _{oss}			480		
Reverse Transfer Capacitance	C _{rss}			320		
Gate Resistance	R _g	V _{GS} =0V, V _{DS} =0V, f=1MHz		6.8	10	Ω
Total Gate Charge	Q _g	V _{GS} =-10V, V _{DS} =-15V, I _D =-8A		41	52	nC
Gate Source Charge	Q _{gs}			10		
Gate Drain Charge	Q _{gd}			12		
Turn-On DelayTime	t _{d(on)}	V _{GS} =-10V, V _{DS} =-15V, R _L =1.8Ω, R _{GEN} =3Ω		13		ns
Turn-On Rise Time	t _r			12		
Turn-Off DelayTime	t _{d(off)}			51		
Turn-Off Fall Time	t _f			30.5		
Body Diode Reverse Recovery Time	t _{rr}	I _F =-8A, di/dt= 100A/us		28	35	nC
Body Diode Reverse Recovery Charge	Q _{rr}			20.5		
Maximum Body-Diode Continuous Current	I _S				-2.6	A
Diode Forward Voltage	V _{SD}	I _S =-1A, V _{GS} =0V			-1	V

Note. The static characteristics in Figures 1 to 6 are obtained using <300us pulses, duty cycle 0.5% max.

■ Marking

Marking	4815 KA****
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Dual P-Channel MOSFET AO4815 (KO4815)

Typical Characteristics

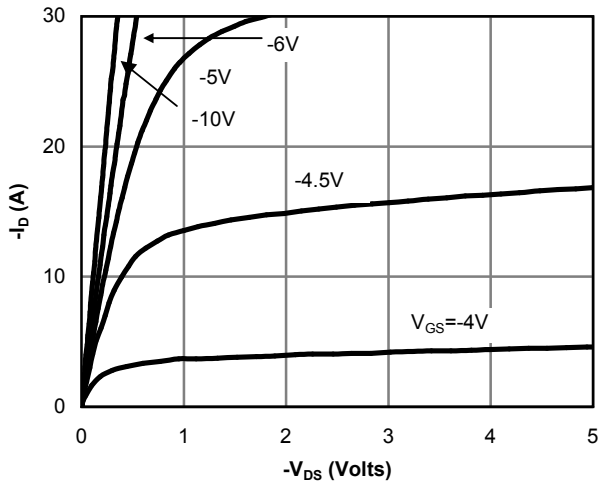


Figure 1: On-Region Characteristics

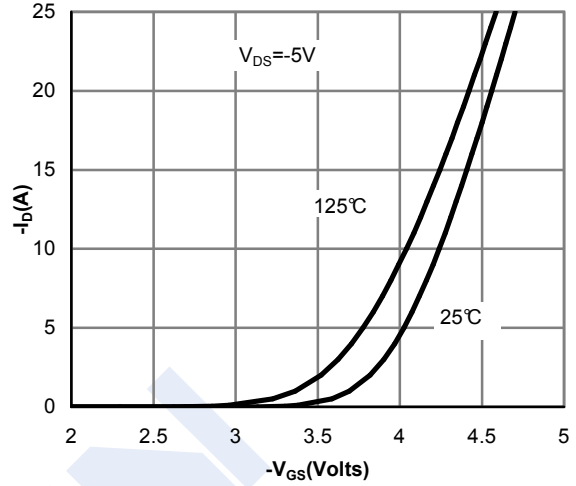


Figure 2: Transfer Characteristics

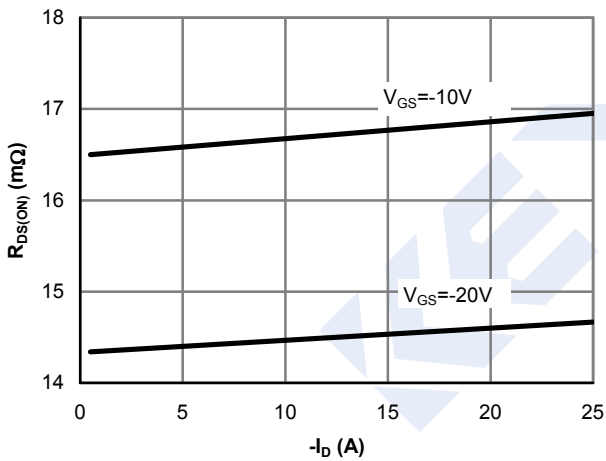


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

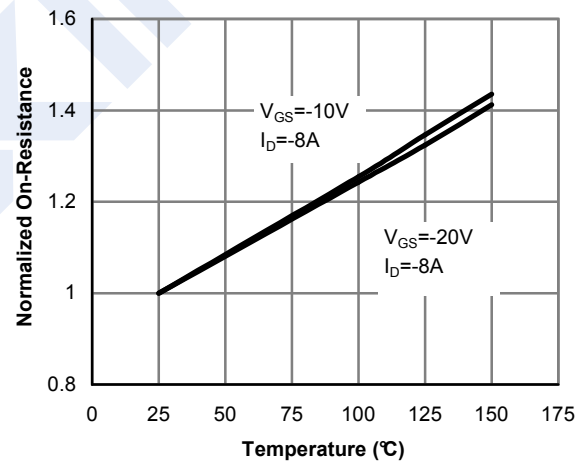


Figure 4: On-Resistance vs. Junction Temperature

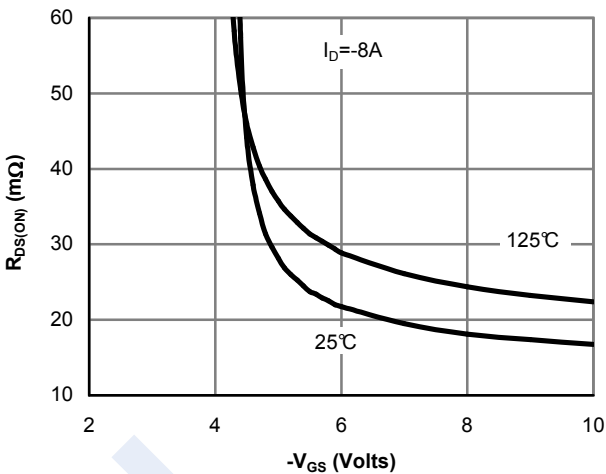


Figure 5: On-Resistance vs. Gate-Source Voltage

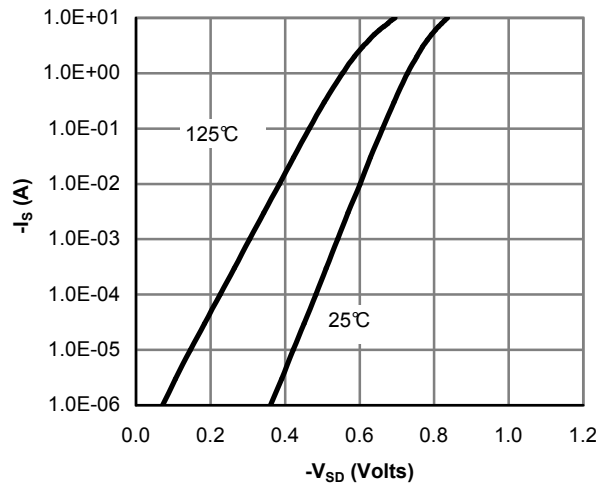


Figure 6: Body-Diode Characteristics

Dual P-Channel MOSFET AO4815 (KO4815)

■ Typical Characteristics

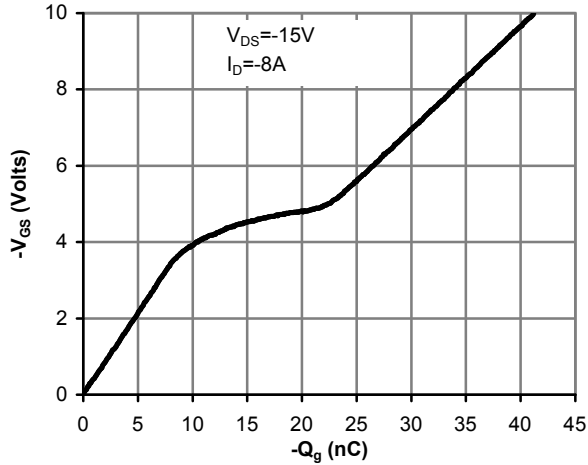


Figure 7: Gate-Charge Characteristics

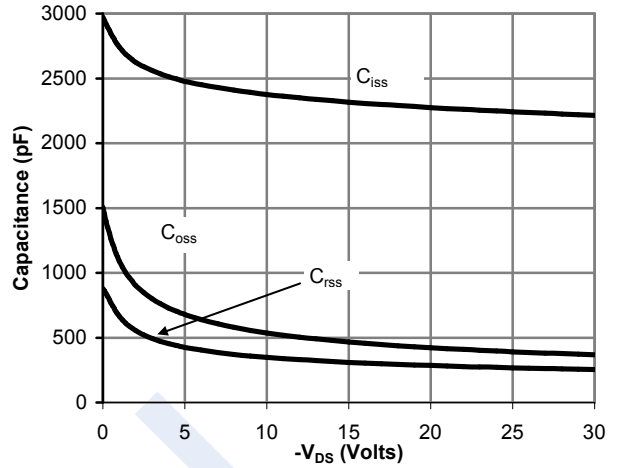


Figure 8: Capacitance Characteristics

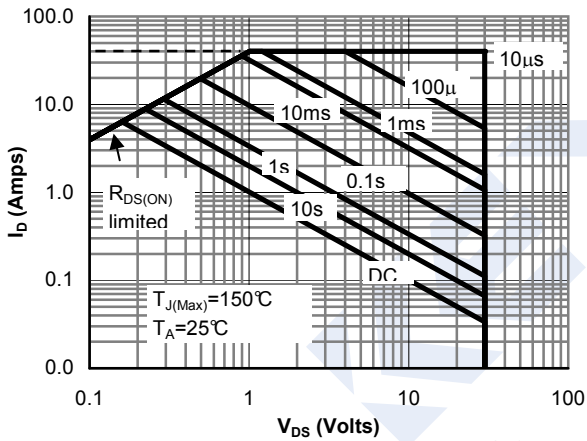


Figure 9: Maximum Forward Biased Safe Operating Area (Note E)

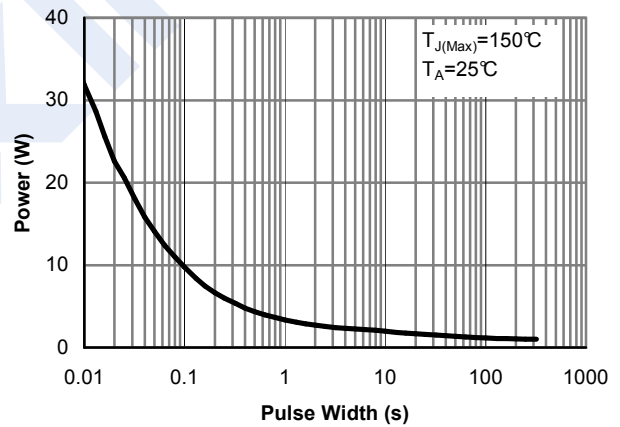


Figure 10: Single Pulse Power Rating Junction-to-Ambient (Note E)

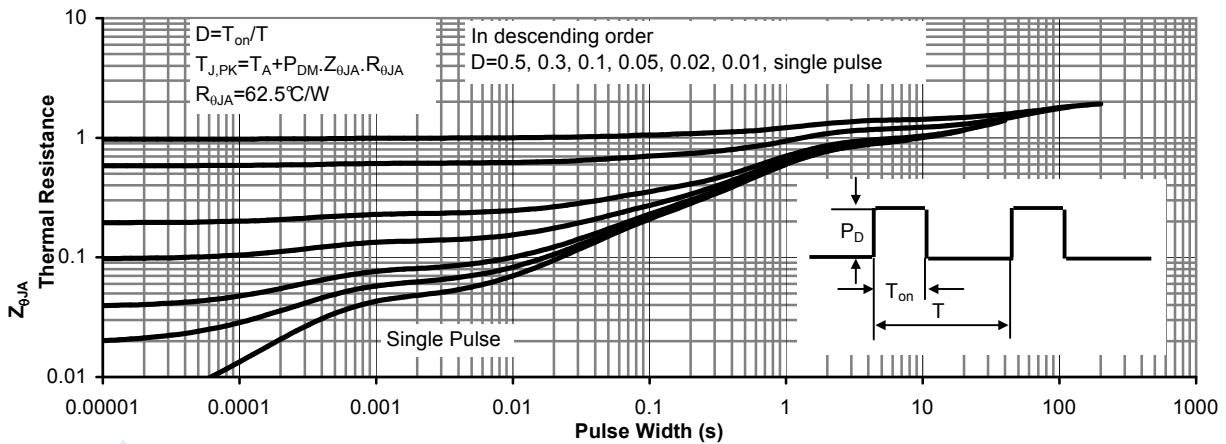


Figure 11: Normalized Maximum Transient Thermal Impedance