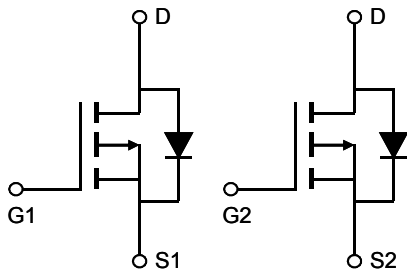
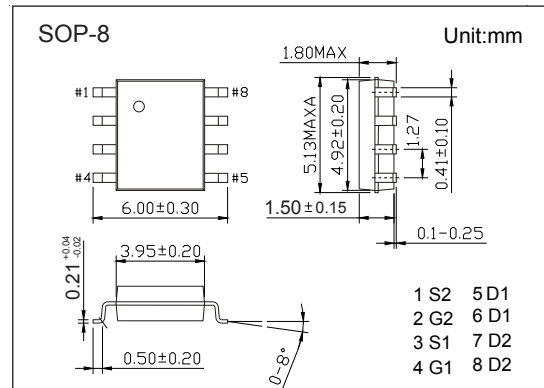


## Dual P-Channel MOSFET AO4803A-HF (KO4803A-HF)

### ■ Features

- $V_{DS} (V) = -30V$
- $I_D = -5 A (V_{GS} = -10V)$
- $R_{DS(ON)} < 46m\Omega (V_{GS} = -10V)$
- $R_{DS(ON)} < 74m\Omega (V_{GS} = -4.5V)$
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	-30	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	
Continuous Drain Current	$I_D$	$T_A=25^\circ C$	A
		$T_A=70^\circ C$	
Pulsed Drain Current	$I_{DM}$	-30	A
Avalanche Current	$I_{AS}, I_{AR}$	-17	
Avalanche Energy	$E_{AS}, E_{AR}$	14	mJ
Power Dissipation	$P_D$	$T_A=25^\circ C$	W
		$T_A=70^\circ C$	
Thermal Resistance.Junction- to-Ambient	$R_{thJA}$	$t \leq 10s$	$^\circ C/W$
		Steady-State	
Thermal Resistance.Junction- to-Lead	$R_{thJL}$	40	$^\circ C$
Junction Temperature	$T_J$	150	
Storage Temperature Range	$T_{stg}$	-55 to 150	

## Dual P-Channel MOSFET AO4803A-HF (KO4803A-HF)

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Drain-Source Breakdown Voltage	V <sub>DSS</sub>	I <sub>D</sub> =-250 μA, V <sub>GS</sub> =0V	-30			V	
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =-30V, V <sub>GS</sub> =0V			-1	μA	
		V <sub>DS</sub> =-30V, V <sub>GS</sub> =0V, T <sub>J</sub> =55°C			-5		
Gate-Body Leakage Current	I <sub>GSS</sub>	V <sub>DS</sub> =0V, V <sub>GS</sub> =±20V			±100	nA	
Gate Threshold Voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =-250μA	-1.5		-2.5	V	
Static Drain-Source On-Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =-10V, I <sub>D</sub> =-5A			46	mΩ	
		V <sub>GS</sub> =-10V, I <sub>D</sub> =-5A, T <sub>J</sub> =125°C			68		
		V <sub>GS</sub> =-4.5V, I <sub>D</sub> =-4A			74		
On State Drain Current	I <sub>D(ON)</sub>	V <sub>GS</sub> =-10V, V <sub>DS</sub> =-5V	-30			A	
Forward Transconductance	g <sub>FS</sub>	V <sub>DS</sub> =-5V, I <sub>D</sub> =-5A		13		S	
Input Capacitance	C <sub>iss</sub>	V <sub>GS</sub> =0V, V <sub>DS</sub> =-15V, f=1MHz		520		pF	
Output Capacitance	C <sub>oss</sub>			100			
Reverse Transfer Capacitance	C <sub>rss</sub>			65			
Gate Resistance	R <sub>g</sub>	V <sub>GS</sub> =0V, V <sub>DS</sub> =0V, f=1MHz	3.5		11.5	Ω	
Total Gate Charge (10V)	Q <sub>g</sub>	V <sub>GS</sub> =-10V, V <sub>DS</sub> =-15V, I <sub>D</sub> =-5A		9.2	11	nC	
Total Gate Charge (4.5V)				4.6	6		
Gate Source Charge			Q <sub>gs</sub>		1.6		
Gate Drain Charge			Q <sub>gd</sub>		2.2		
Turn-On DelayTime	t <sub>d(on)</sub>	V <sub>GS</sub> =-10V, V <sub>DS</sub> =-15V, R <sub>L</sub> =3Ω, R <sub>GEN</sub> =3Ω		7.5		ns	
Turn-On Rise Time	t <sub>r</sub>			5.5			
Turn-Off DelayTime	t <sub>d(off)</sub>			19			
Turn-Off Fall Time	t <sub>f</sub>			7			
Body Diode Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =-5A, di/dt= 100A/us		11		nC	
Body Diode Reverse Recovery Charge	Q <sub>rr</sub>			5.3			
Maximum Body-Diode Continuous Current	I <sub>S</sub>				-2.5	A	
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> =-1A, V <sub>GS</sub> =0V			-1	V	

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

### ■ Marking

Marking	4803A KA**** <sub>F</sub>
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## Dual P-Channel MOSFET AO4803A-HF (KO4803A-HF)

■ Typical Characteristics

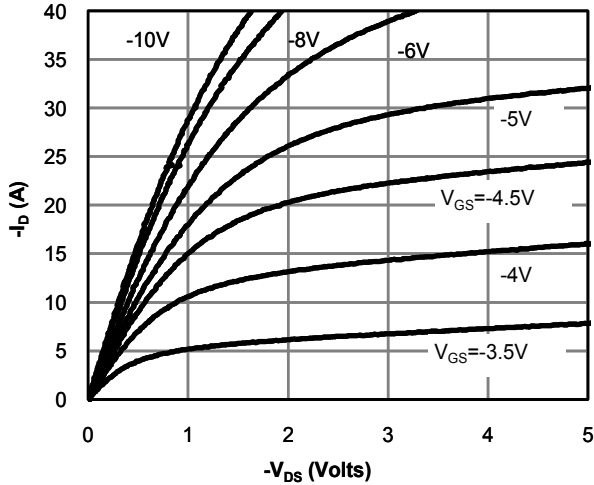


Fig 1: On-Region Characteristics

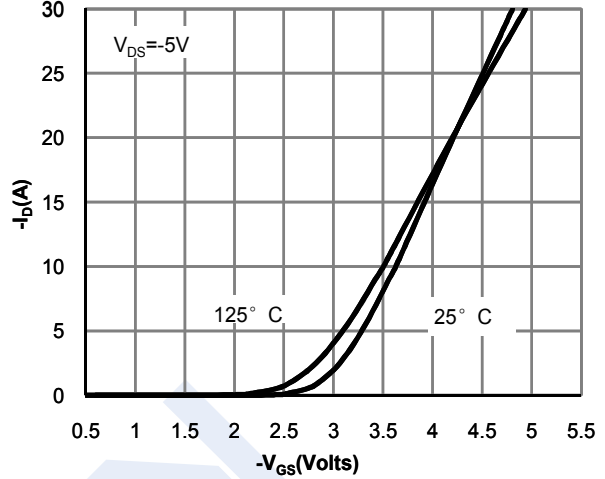


Figure 2: Transfer Characteristics

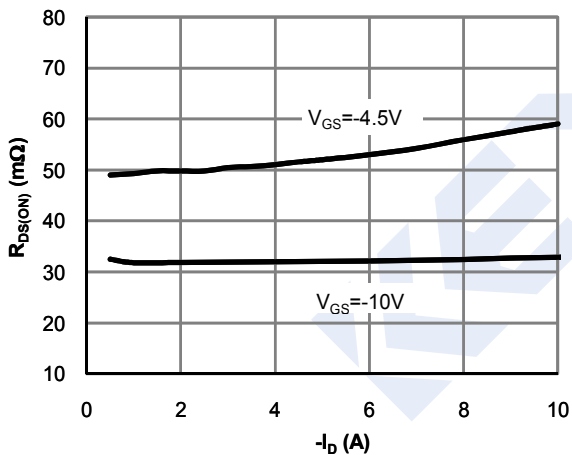


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

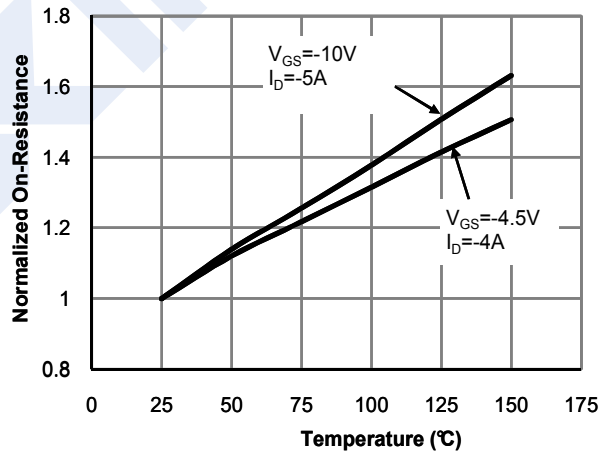


Figure 4: On-Resistance vs. Junction Temperature

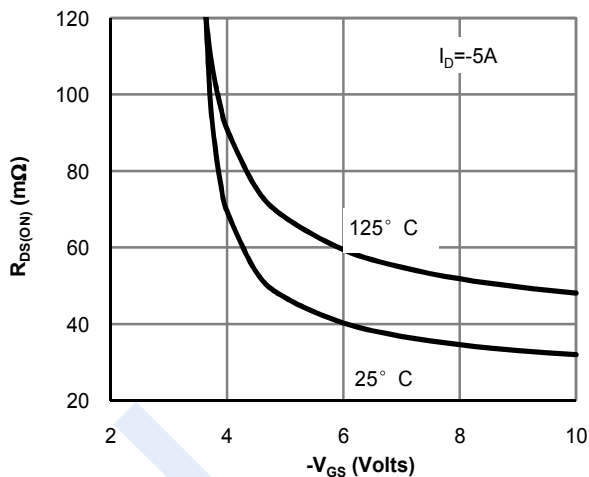


Figure 5: On-Resistance vs. Gate-Source Voltage

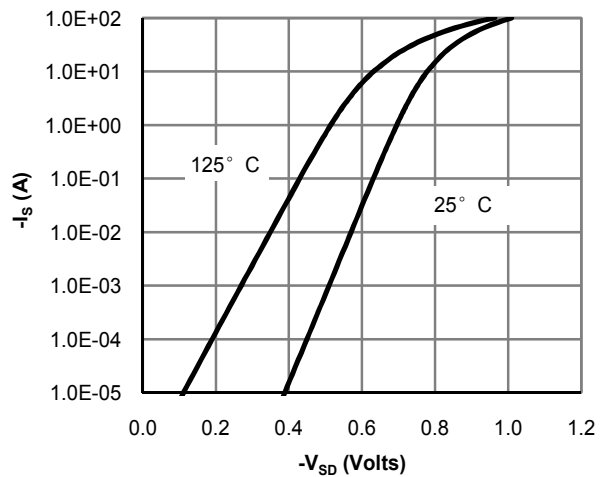


Figure 6: Body-Diode Characteristics

## Dual P-Channel MOSFET AO4803A-HF (KO4803A-HF)

■ Typical Characteristics

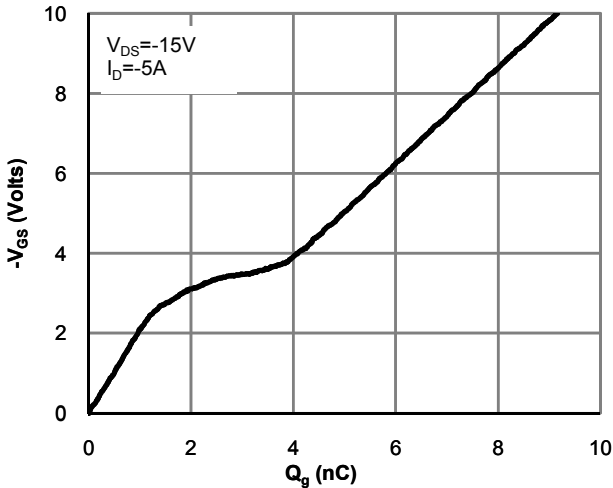


Figure 7: Gate-Charge Characteristics

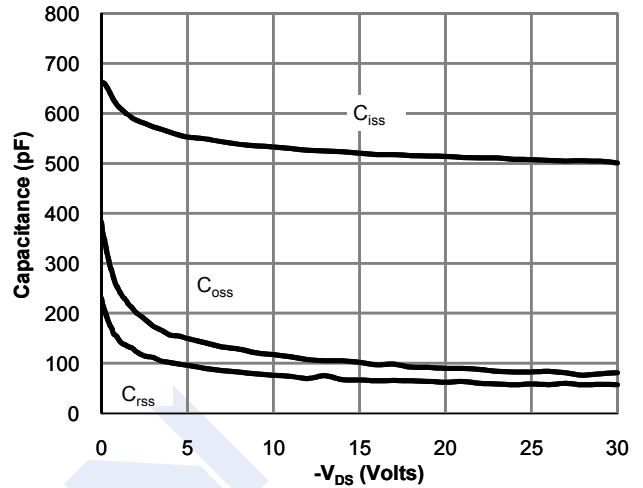


Figure 8: Capacitance Characteristics

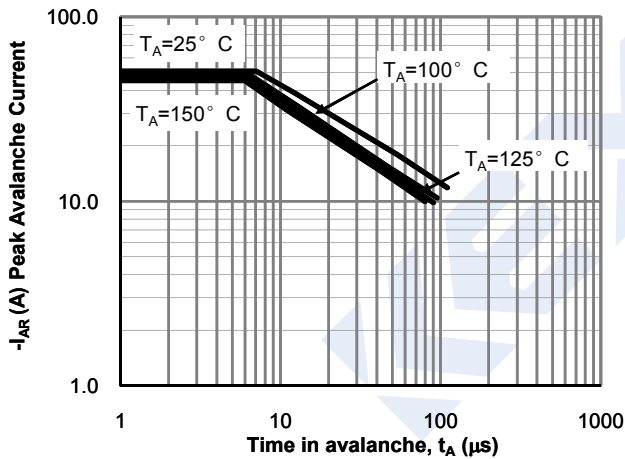


Figure 9: Single Pulse Avalanche capability (Note C)

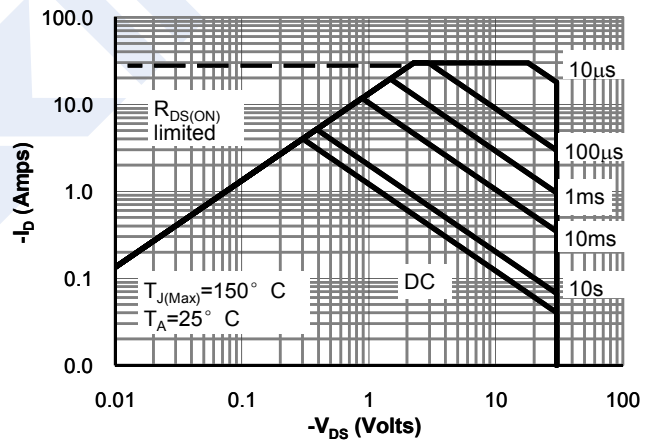


Figure 10: Maximum Forward Biased Safe Operating Area (Note F)

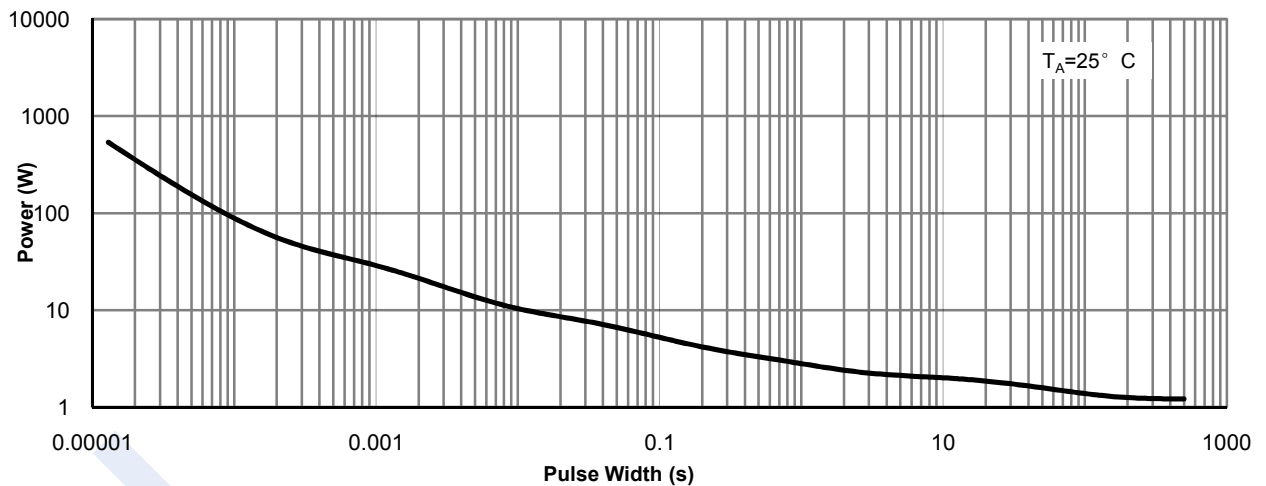


Figure 11: Single Pulse Power Rating Junction-to-Ambient (Note F)

## Dual P-Channel MOSFET AO4803A-HF (KO4803A-HF)

■ Typical Characteristics

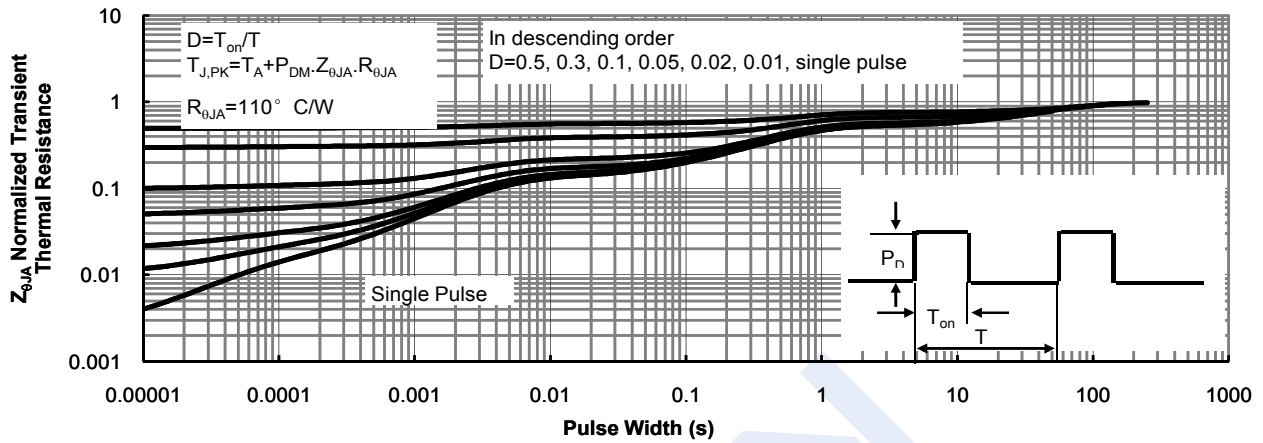


Figure 12: Normalized Maximum Transient Thermal Impedance (Note F)