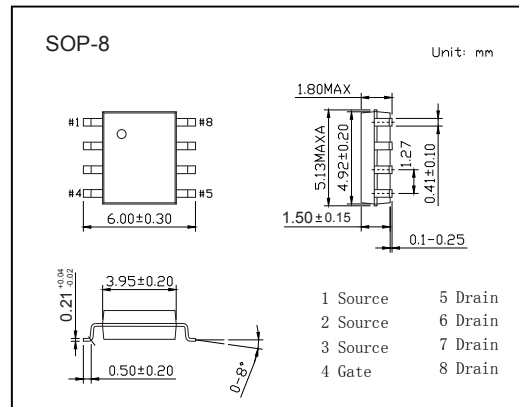
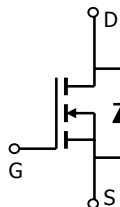


N-Channel MOSFET

AO4468 (KO4468)

■ Features

- $V_{DS} (V) = 30V$
- $I_D = 10.5 A$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 17m\Omega$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 23m\Omega$ ($V_{GS} = 4.5V$)

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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	10.5	A
		8.5	
Pulsed Drain Current	I_{DM}	50	
Avalanche Current	I_{AS}, I_{AR}	19	
Power Dissipation	P_D	3.1	W
		2	
Avalanche energy	$L=0.1mH$	E_{AS}, E_{AR}	mJ
Thermal Resistance.Junction- to-Ambient	$t \leq 10s$	R_{thJA}	$^\circ C/W$
	Steady-State		
Thermal Resistance.Junction- to-Lead		R_{thJC}	24
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

N-Channel MOSFET

AO4468 (KO4468)

■ 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} =30V, V _{GS} =0V			1	μA
		V _{DS} =30V, V _{GS} =0V, T _J =55°C			5	
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±16V			±10	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =10 mA	1.2		2.4	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =10V, I _D =10.5A			17	mΩ
		V _{GS} =10V, I _D =10.5A T _J =125°C			24	
		V _{GS} =5V, I _D =9A			23	
On State Drain Current	I _{D(ON)}	V _{GS} =10V, V _{DS} =5V	50			A
Forward Transconductance	g _{FS}	V _{DS} =5V, I _D =10.5A		36		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =15V, f=1MHz			888	pF
Output Capacitance	C _{oss}				145	
Reverse Transfer Capacitance	C _{rss}				115	
Gate Resistance	R _g	V _{GS} =0V, V _{DS} =0V, f=1MHz	0.5		1.7	Ω
Total Gate Charge (10V)	Q _g	V _{GS} =10V, V _{DS} =15V, I _D =10.5A		15		nC
Total Gate Charge (4.5V)				7.5		
Gate Source Charge				2.5		
Gate Drain Charge				3		
Turn-On DelayTime	t _{d(on)}	V _{GS} =10V, V _{DS} =15V, R _L =1.45 Ω, R _G =3 Ω		5		ns
Turn-On Rise Time	t _r			3.5		
Turn-Off DelayTime	t _{d(off)}			19		
Turn-Off Fall Time	t _f			3.5		
Body Diode Reverse Recovery Time	t _{rr}	I _F = 10.5A, di/dt= 100A/μs			22	nC
Body Diode Reverse Recovery Charge	Q _{rr}				12	
Maximum Body-Diode Continuous Current	I _S				4	A
Diode Forward Voltage	V _{SD}	I _S =1A, V _{GS} =0V			1	V

■ Marking

Marking	4468 KC****
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N-Channel MOSFET

AO4468 (KO4468)

■ Typical Characteristics

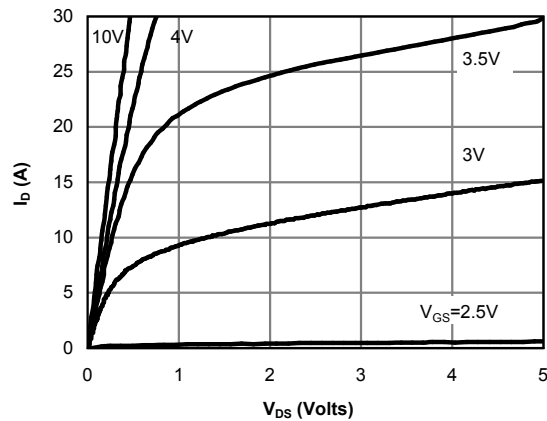


Fig 1: On-Region Characteristics (Note E)

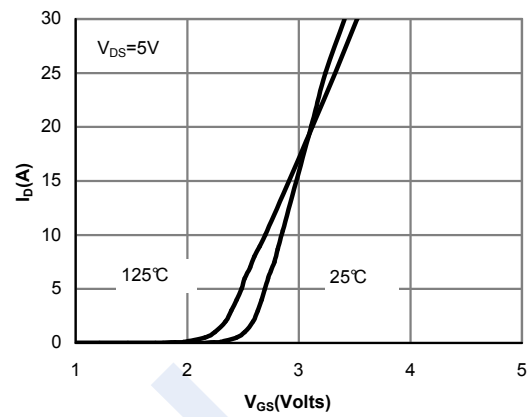


Figure 2: Transfer Characteristics (Note E)

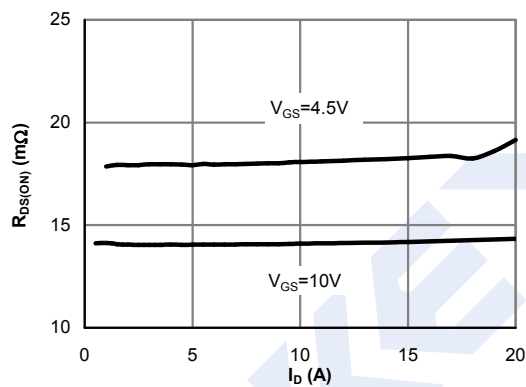


Figure 3: On-Resistance vs. Drain Current and Gate Voltage (Note E)

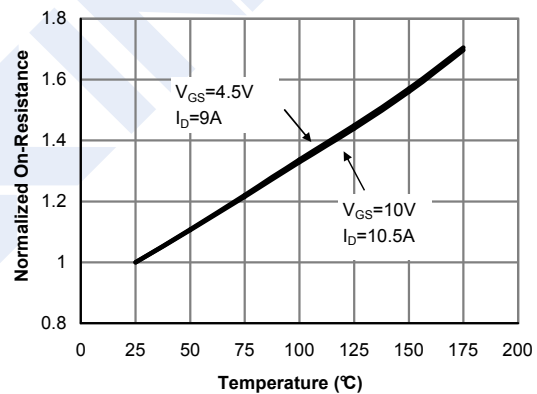


Figure 4: On-Resistance vs. Junction Temperature (Note E)

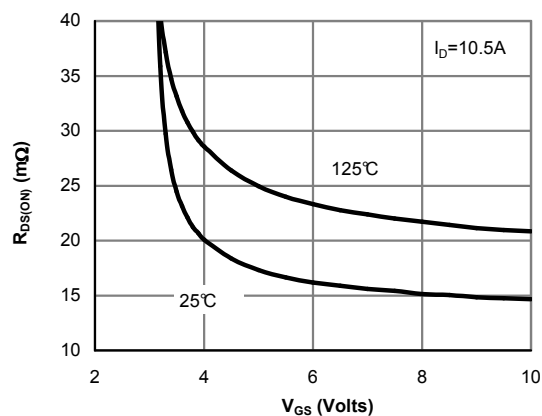


Figure 5: On-Resistance vs. Gate-Source Voltage (Note E)

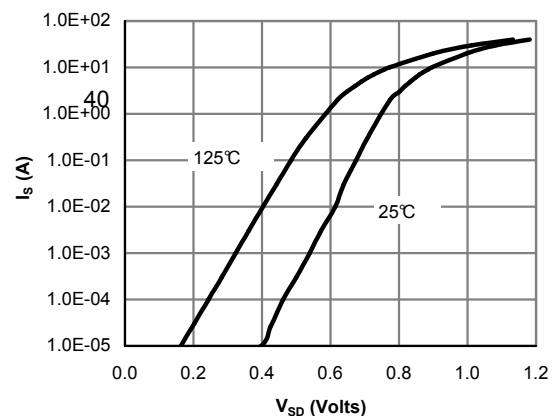


Figure 6: Body-Diode Characteristics (Note E)

N-Channel MOSFET

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■ Typical Characteristics

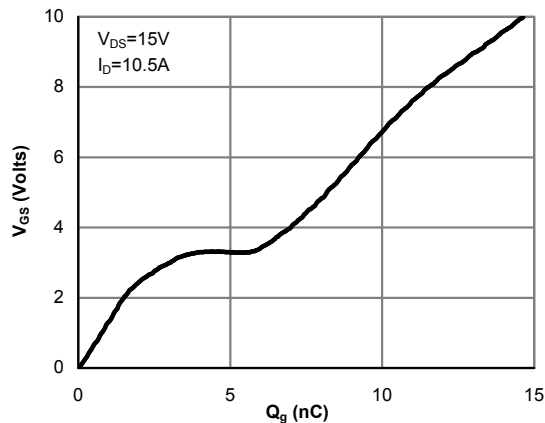


Figure 7: Gate-Charge Characteristics

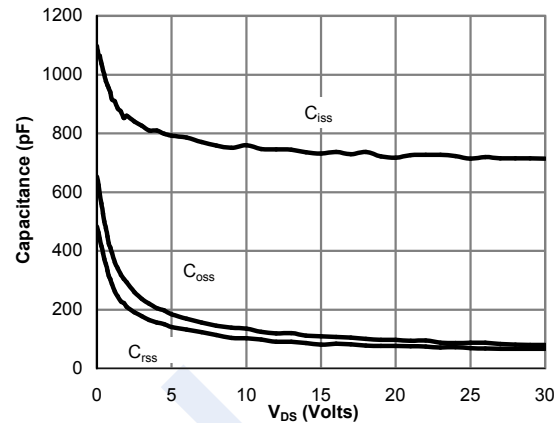


Figure 8: Capacitance Characteristics

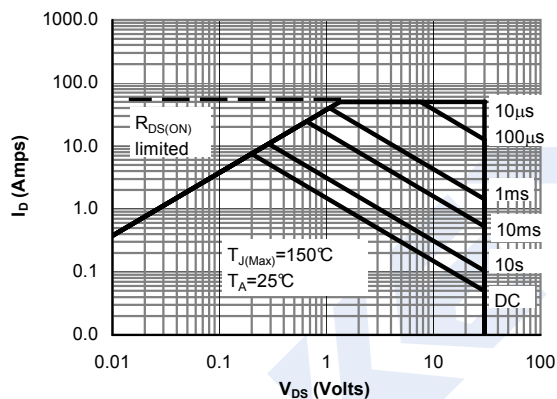


Figure 10: Maximum Forward Biased Safe Operating Area (Note F)

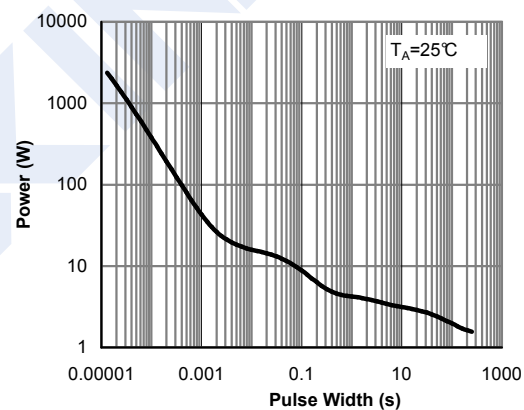


Figure 11: Single Pulse Power Rating Junction-to-Ambient (Note F)

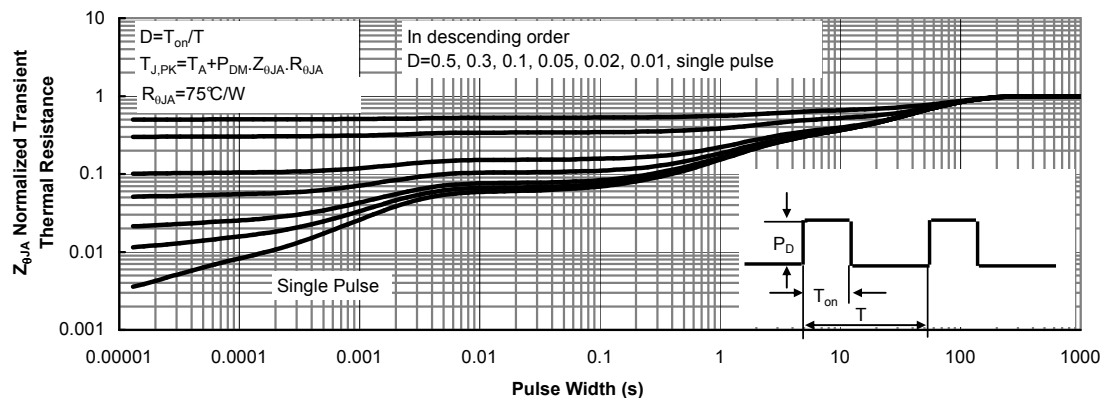


Figure 12: Normalized Maximum Transient Thermal Impedance (Note F)