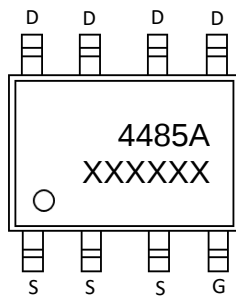


Features

- High density cell design for ultra low Rdson
- Fully characterized avalanche voltage and current
- Excellent package for good heat dissipation

Application

- PWM applications
- Power management
- Load switch

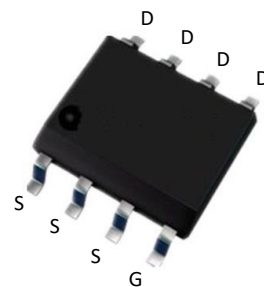


Marking and pin assignment

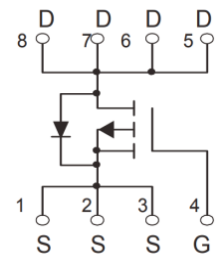
4485A: Device code
XXXXXX: Code

-40V/-10A P-Channel MOSFET Product Summary

V_{DS}	$R_{DS(ON)} \text{ MAX}$	$I_D \text{ MAX}$
-40V	15mΩ@-10V	-10A
	20mΩ@-4.5V	



SOP-8 top view



Schematic diagram



Pb-Free



RoHS

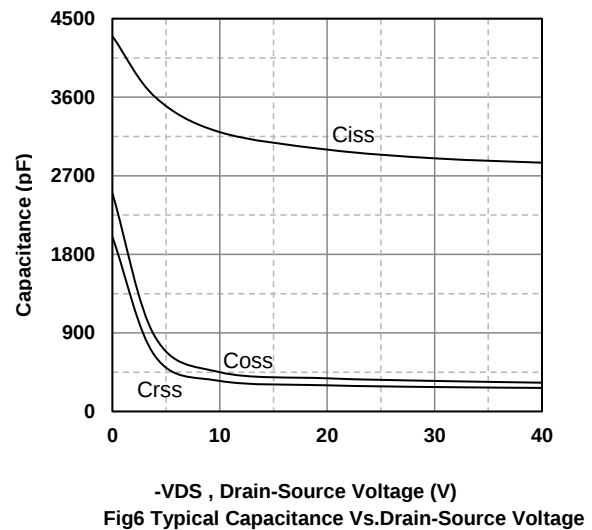
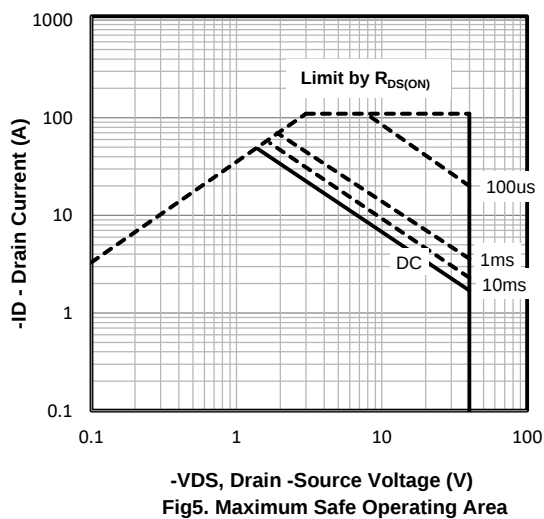
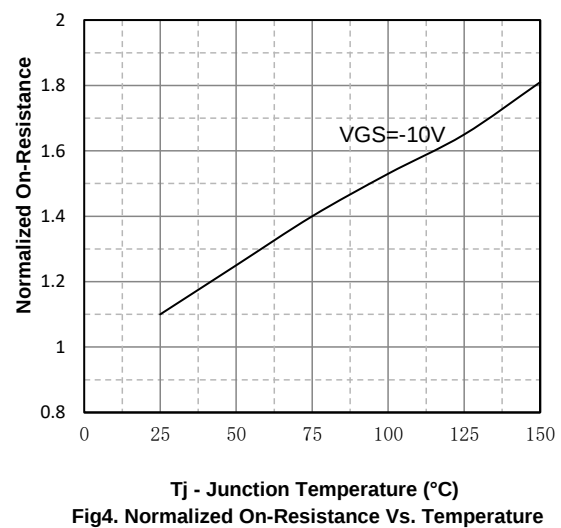
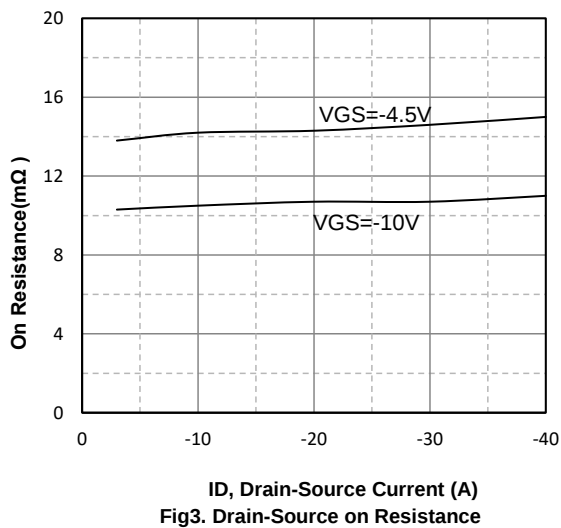
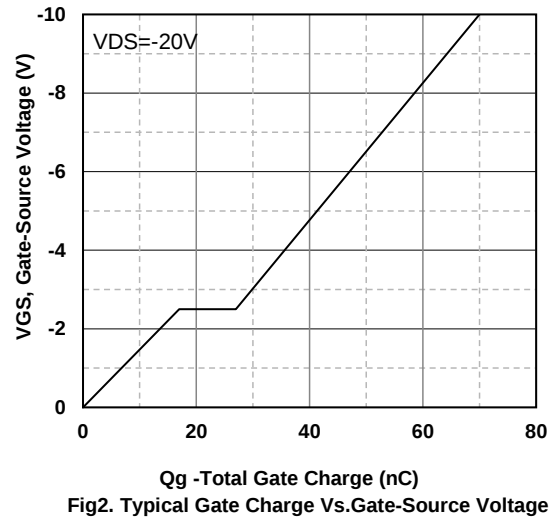
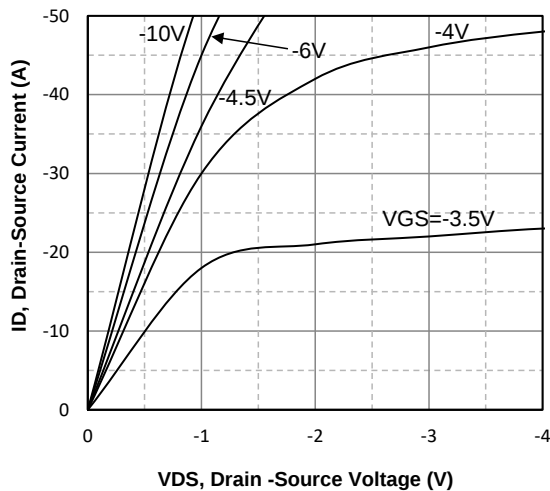


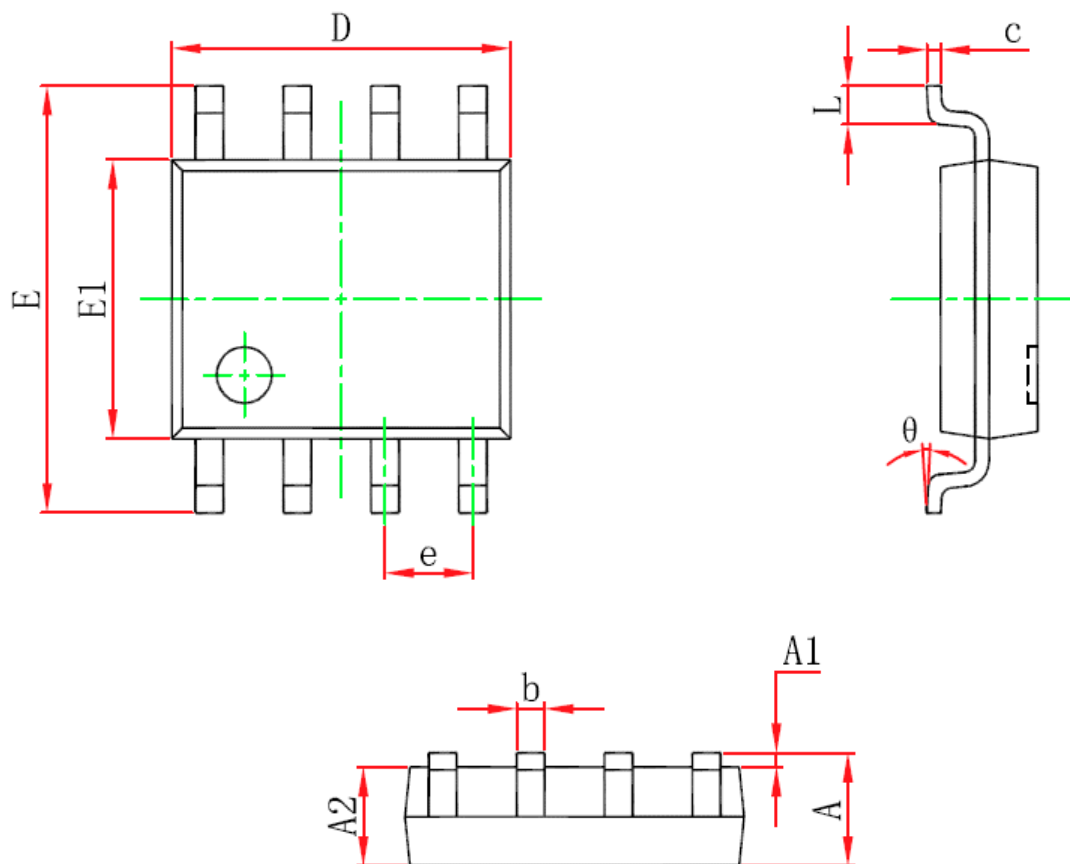
Halogen-Free

Absolute Maximum Ratings (TA=25 °C unless otherwise noted)				
Symbol	Parameter		Rating	Unit
Common Ratings (TC=25°C Unless Otherwise Noted)				
V _{DS}	Drain-Source Breakdown Voltage		-40	V
V _{GS}	Gate-Source Voltage		±20	V
T _J	Maximum Junction Temperature		150	°C
T _{STG}	Storage Temperature Range		-55 to 150	°C
I _S	Diode Continuous Forward Current	Tc=25°C	-10	A
Mounted on Large Heat Sink				
I _{DM}	Pulse Drain Current Tested	Tc=25°C	-45	A
I _D	Continuous Drain Current@GS=10V	Tc=25°C	-10	A
P _D	Maximum Power Dissipation	Tc=25°C	3.2	W
R _{θJA}	Thermal Resistance Junction-to-Ambient		40	°C/W

Electrical Characteristics (TJ=25℃ unless otherwise noted)						
Symbol	Parameter	Condition	Min	Typ	Max	Unit
Static Electrical Characteristics @ TJ = 25℃ (unless otherwise stated)						
BV _{(BR)DSS}	Drain-Source Breakdown Voltage	VGS=0V, ID=-250μA	-40	--	--	V
IDSS	Zero Gate Voltage Drain Current	VDS=-40V, VGS=0V	--	--	-1	uA
IGSS	Gate-Body Leakage Current	VGS=±20V, VDS=0V	--	--	±100	nA
VGS(th)	Gate Threshold Voltage	VDS=VGS, ID=-250μA	-1.0	-1.8	-2.5	V
RDS(on)	Drain-Source On-State Resistance	VGS=-10V, ID=-12A	--	11	15	mΩ
		VGS=-4.5V, ID=-10A	--	16	20	mΩ
Dynamic Electrical Characteristics @ TJ = 25℃ (unless otherwise stated)						
CISS	Input Capacitance	VDS=-20V, VGS=0V, f=1MHz	--	2980	--	pF
COSS	Output Capacitance		--	380	--	pF
CRSS	Reverse Transfer Capacitance		--	300	--	pF
Switching Characteristics						
Qg	Total Gate Charge	VDS=-20V, ID=-12A, VGS=-10V	--	75	--	nC
Qgs	Gate Source Charge		--	14	--	nC
Qgd	Gate Drain Charge		--	15	--	nC
td(on)	Turn-on Delay Time	VDD=-12V, ID=-1A, VGS=-10V, RG=3.3Ω	--	10	--	nS
tr	Turn-on Rise Time		--	17	--	nS
td(off)	Turn-Off Delay Time		--	38	--	nS
tf	Turn-Off Fall Time		--	25	--	nS
Source- Drain Diode Characteristics						
VSD	Forward on voltage	Tj=25℃, Is=-20A,	--	--	-1.2	V

Typical Operating Characteristics



SOP-8 Package information


Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	1.450	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.007	0.010
D	4.700	5.100	0.185	0.201
e	1.270(BSC)		0.050(BSC)	
E	5.800	6.200	0.028	0.035
E1	3.800	4.000	0.057	0.069
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°