

Features

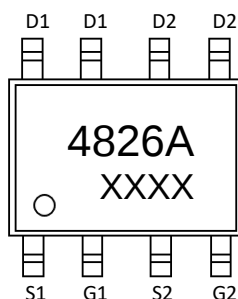
- High density cell design for ultra low $R_{DS(ON)}$
- Fully characterized avalanche voltage and current
- Excellent package for good heat dissipation

Product Summary

V_{DS}	$R_{DS(ON)}$ TYP	I_D
60V	22mΩ@10V	6.3A
	30mΩ@4.5V	

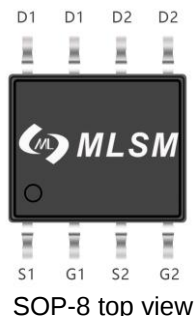
Application

- Power switching application

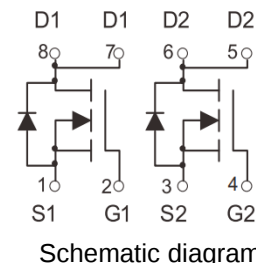


4826A: Device code
 XXXX: Code

Marking and pin assignment



SOP-8 top view



Schematic diagram



Pb-Free



Halogen-Free

Absolute Maximum Ratings (TA=25°C unless otherwise noted)

Symbol	Parameter	Rating	Unit
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Common Ratings (TC=25°C Unless Otherwise Noted)

V_{DS}	Drain-Source Breakdown Voltage	60	V
V_{GS}	Gate-Source Voltage	±20	V
T_J	Maximum Junction Temperature	150	°C
T_{STG}	Storage Temperature Range	-50 to 155	°C
I_S	Diode Continuous Forward Current	$T_C=25^\circ\text{C}$ 6.3	A

Mounted on Large Heat Sink

I_{DM}	Pulse Drain Current Tested	$T_C=25^\circ\text{C}$ 28	A
I_D	Continuous Drain Current	$T_C=25^\circ\text{C}$ 6.3	A
P_D	Maximum Power Dissipation	$T_C=25^\circ\text{C}$ 2	W
$R_{\theta JA}$	Thermal Resistance Junction-Ambient	60	°C/W

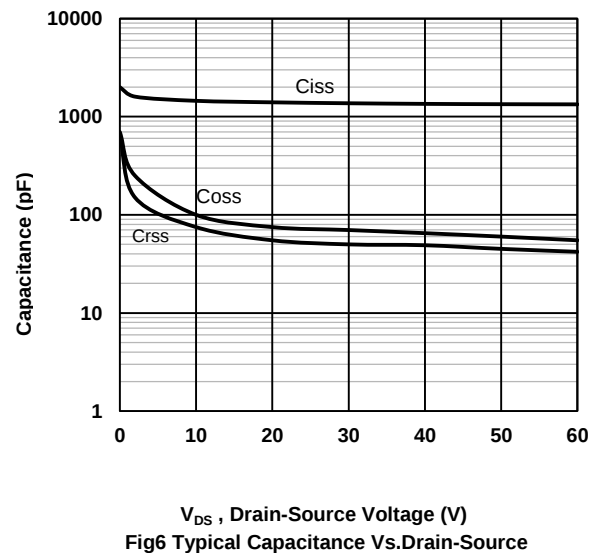
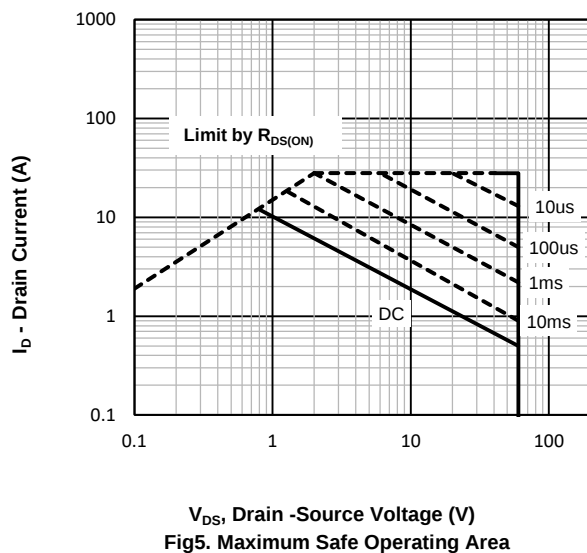
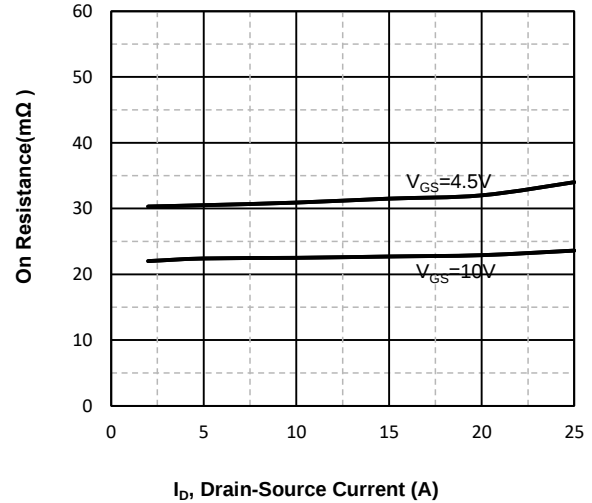
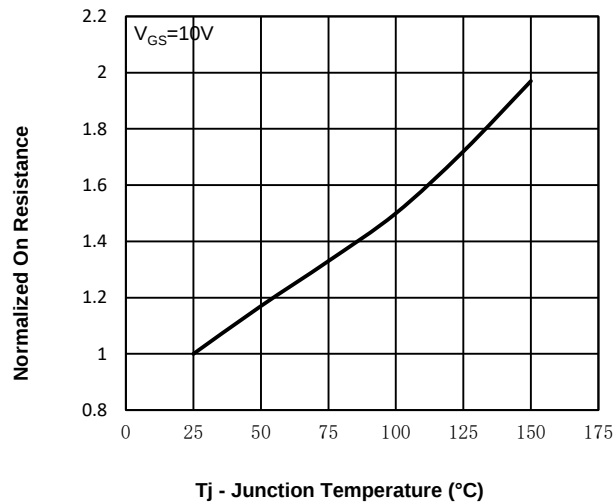
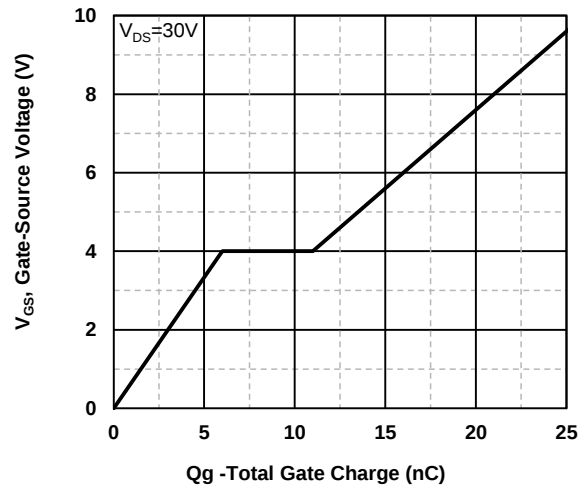
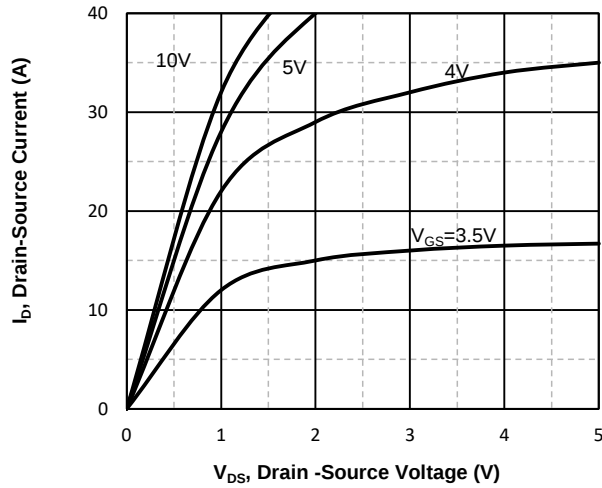
Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
MQ4826A	SOP-8	4826A	3,000	6,000	42,000	13"reel

Electrical Characteristics (T_J=25°C unless otherwise noted)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
Static Electrical Characteristics @ TJ = 25°C (unless otherwise stated)						
BV(BR)DSS	Drain-Source Breakdown Voltage	VGS=0V, ID=250μA	60	--	--	V
IDSS	Zero Gate Voltage Drain Current	VDS=60V, VGS=0V	--	--	1	μA
IGSS	Gate-Body Leakage Current	VGS=±20V, VDS=0V	--	--	±100	nA
VGS(th)	Gate Threshold Voltage	VDS=VGS, ID=250μA	1.2	1.7	2.5	V
RDS(on)	Drain-Source On-State Resistance	VGS=10V, ID=6.3A	--	22	30	mΩ
		VGS=4.5V, ID=5.7A	--	30	40	mΩ
Dynamic Electrical Characteristics @ TJ = 25°C (unless otherwise stated)						
CISS	Input Capacitance	VDS=30V, VGS=0V, f=1MHz	--	1050	--	pF
COSS	Output Capacitance		--	65	--	pF
CRSS	Reverse Transfer Capacitance		--	55	--	pF
Switching Characteristics						
Qg	Total Gate Charge	VDD=30V, ID=6.3A, VGS=10V	--	26	--	nC
Qgs	Gate Source Charge		--	5.7	--	nC
Qgd	Gate Drain Charge		--	5.2	--	nC
td(on)	Turn-on Delay Time	VDD=30V, ID=6.3A, VGS=10V, RG=3Ω	--	8.4	--	nS
tr	Turn-on Rise Time		--	8.5	--	nS
td(off)	Turn-Off Delay Time		--	36	--	nS
tf	Turn-Off Fall Time		--	5	--	nS
Source- Drain Diode Characteristics						
VSD	Forward on voltage	Tj=25°C, Is=6.3A	--	0.8	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	0.057	0.068
A1	0.100	0.250	0.003	0.009
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.012	0.020
c	0.170	0.250	0.006	0.009
D	4.700	5.100	0.185	0.200
e	1.270(BSC)		0.050(BSC)	
E	3.800	4.000	0.149	0.157
E1	5.800	6.200	0.228	0.244
L	0.400	1.270	0.015	0.050
θ	0°	8°	0°	8°