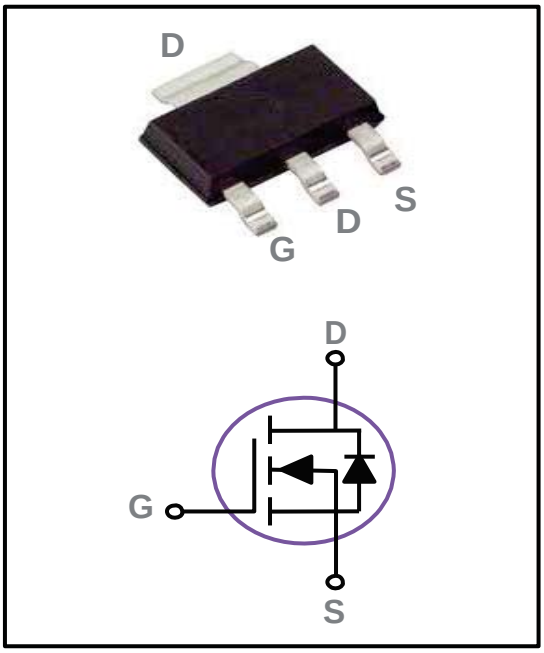
LDL6912

SOT223 Pin Configuration

BVDSS	RDSON	ID
60V	90mÝ	5A



Features

- *60V,5A, RDS(ON) = = 10V*
- *Improved dv/dt capability*
- *Fast switching*

Applications

- *100% EAS Guaranteed*
- *Green Device Available*
- *Power Tools*
- *LED Lighting*
- *Motor Drive*

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25ÁC Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Units
Drain-Source Voltage	V_{DS}	60	V
Gate-Sou ce Voltage	V_{GS}	+20	V
Drain Current ï Continuous (T_C=25C)	I_D	5	A
Drain Current ï Continuous (T_C=100C)		3.2	A
Drain Current ï Pulsed[1]	I_{DM}	20	A
Single Pulse Avalanche Energy[2]	EAS	25	mJ
Single Pulse Avalanche Current[2]	IAS	7	A
Power Dissipation (T_C=25C)	P_D	1.79	W
Power Dissipation ï Derate above 25C		0.014	
Storage Temperature Range	T_{STG}	-50 to 150	
Operating Junction Temperature Range	T_J	-50 to 150	

Thermal Characteristics

MOSFET ELECTRICAL CHARACTERISTICS T_A=25 unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V , I_D=250uA	60	---	---	V
BV_{DSS} Temperature Coefficient	ÇBV_{DSS}/ÇT_J		---	0.05	---	
Drain-Source Leakage Current	I_{DSS}		---	---	1	uA
			---	---	10	uA
Gate-Source Leakage Current	I_{GSS}	V_{GS}=+20V , V_{DS}=0V	---	---	+100	nA

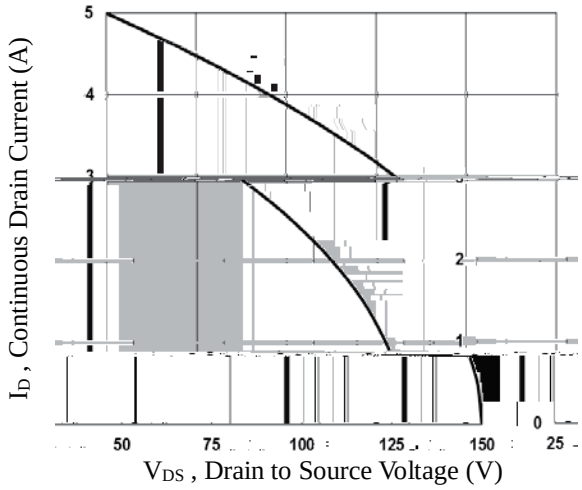


Fig.1 Output Characteristics

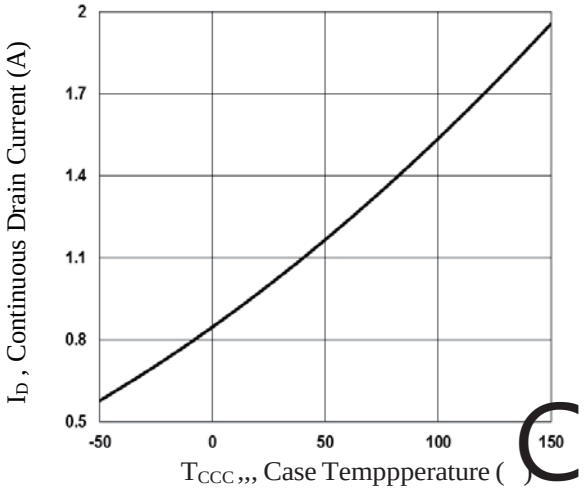


Fig.2 Continuous Drain Current vs. T_C

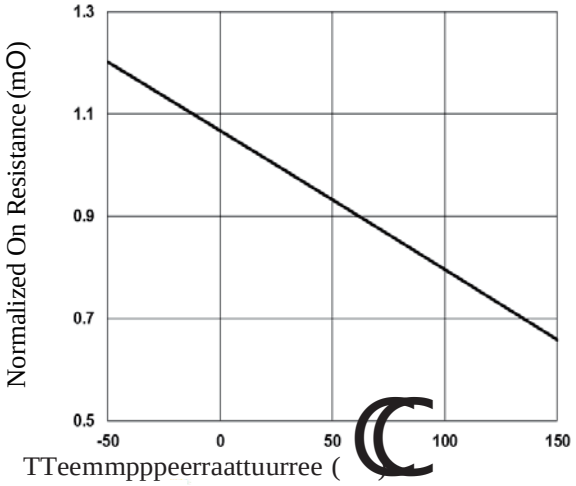


Fig.3 Normalized RDSON vs. T_J

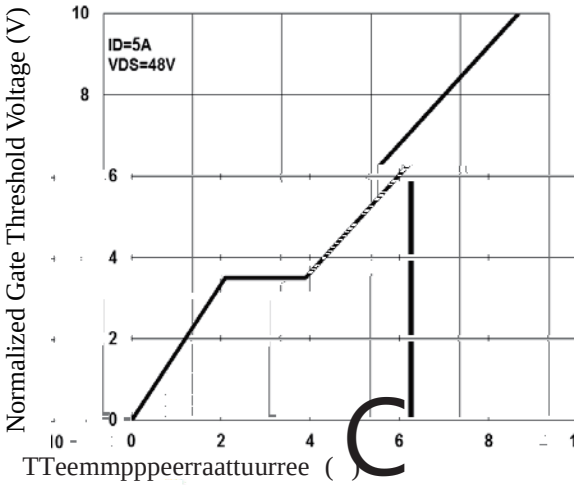


Fig.4 Normalized V_{th} vs. T_J

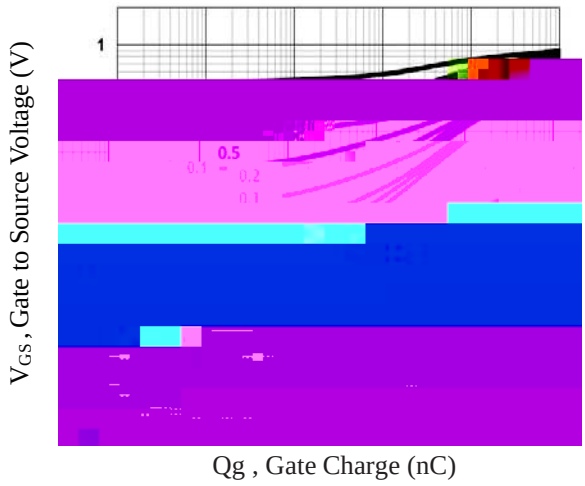


Fig.5 Gate Charge Waveform

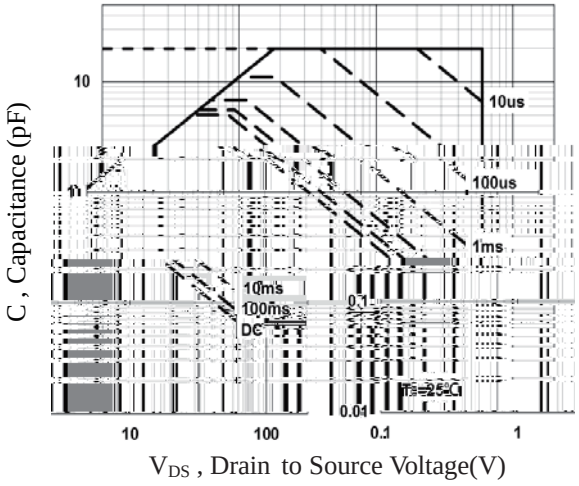


Fig.6 Capacitance Characteristics

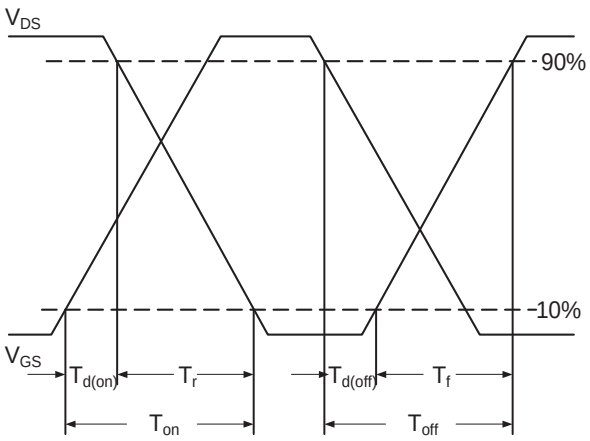


Fig.7 Switching Time Waveform

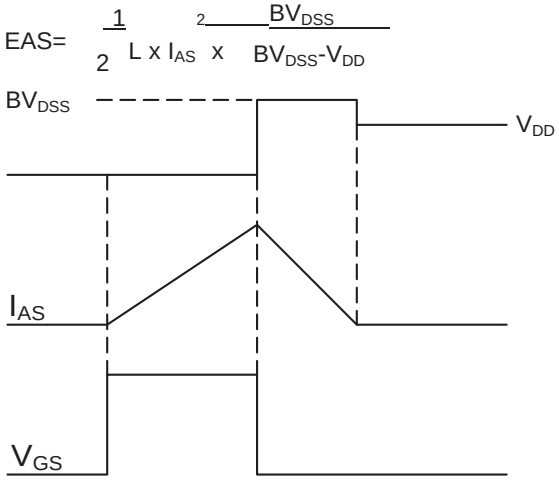
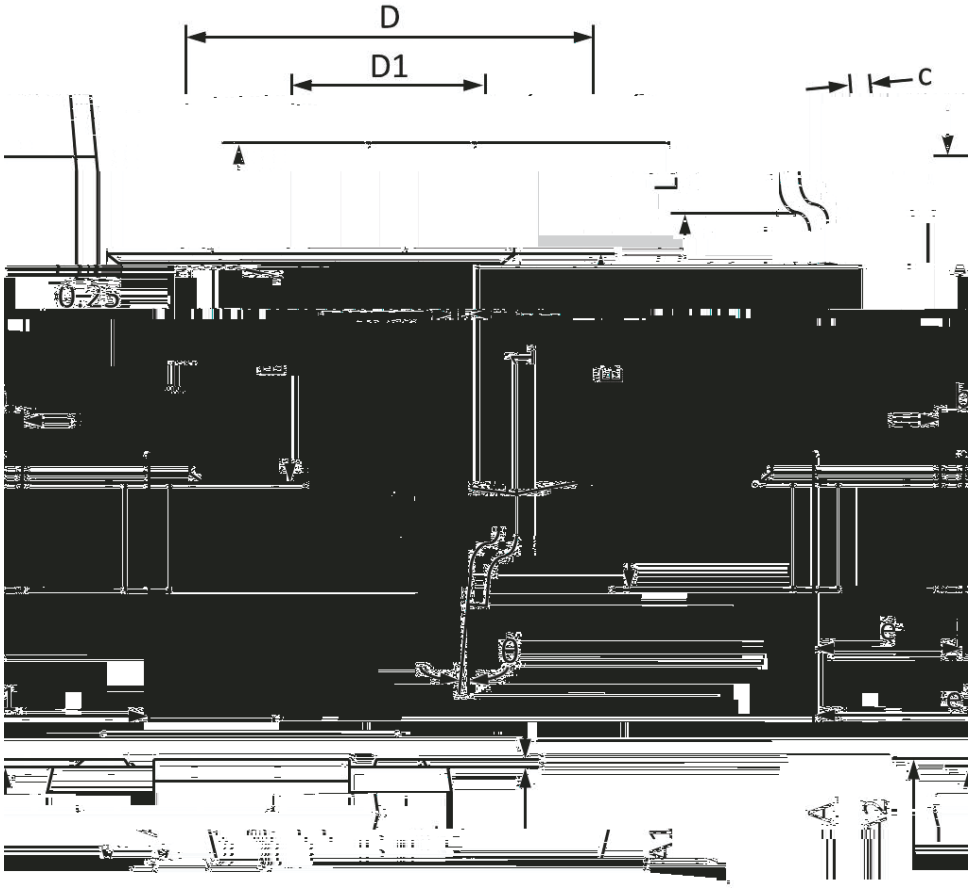


Fig.8 EAS Waveform

SOT223 PACKAGE INFORMATION



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.520	1.800	0.060	0.071
A1	0.000	0.100	0.000	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.820	0.026	0.032
c	0.250	0.350	0.010	0.014
D	6.200	6.400	0.244	0.252
D1	2.900	3.100	0.114	0.122
E	3.300	3.700	0.130	0.146
E1	6.830	7.070	0.269	0.278
e	2.300 (BSC)		0.091 (BSC)	
e1	4.500	4.700	0.177	0.185
L	0.900	1.150	0.035	0.045
θ	0	10	0	10