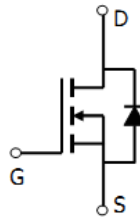
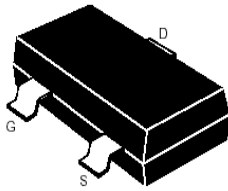


SOT-23

Features

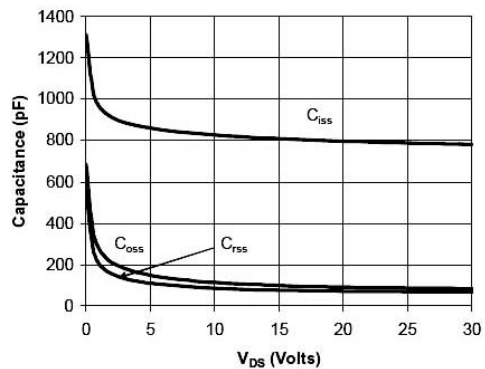
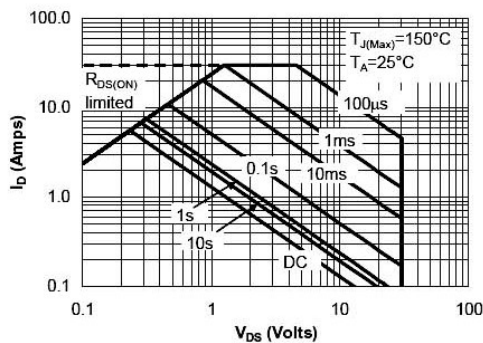
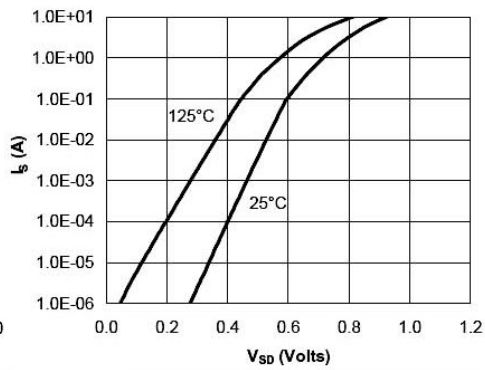
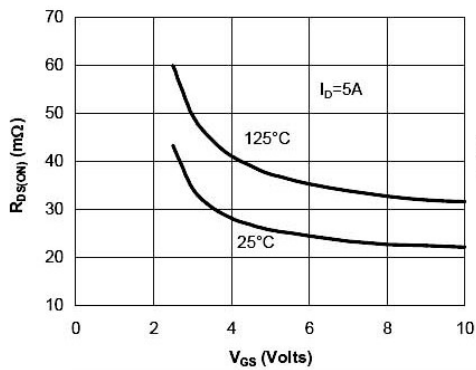
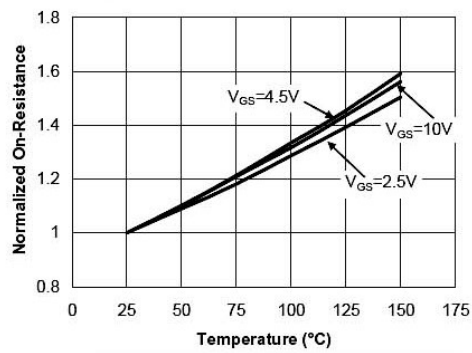
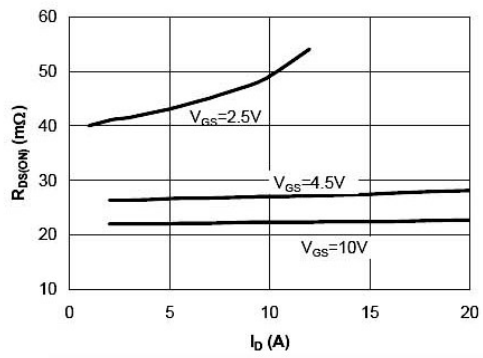
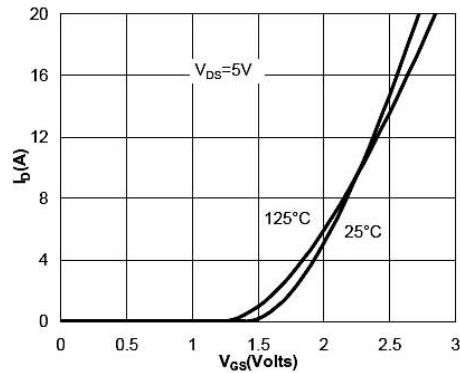
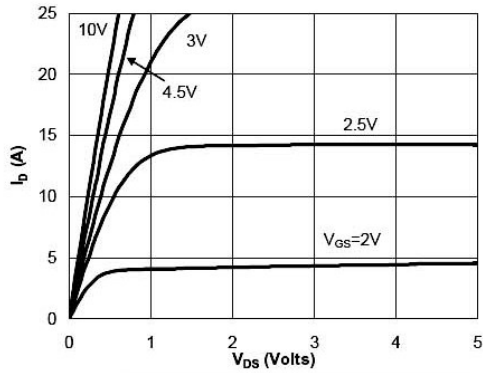
- Advanced trench process technology
- High Density Cell Design For Ultra Low On-Resistance

MAXIMUM RANTINGS

Characteristic	Symbol	Max	Unit
Drain-Source Voltage	BV_{DSS}	30	V
Gate- Source Voltage	V_{GS}	± 12	V
Drain Current (continuous)	I_D	5.8	A
Drain Current (pulsed)	I_{DM}	30	A
Total Device Dissipation $T_A=25^\circ C$	P_D	1400	mW
Junction	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55to+150	$^\circ C$

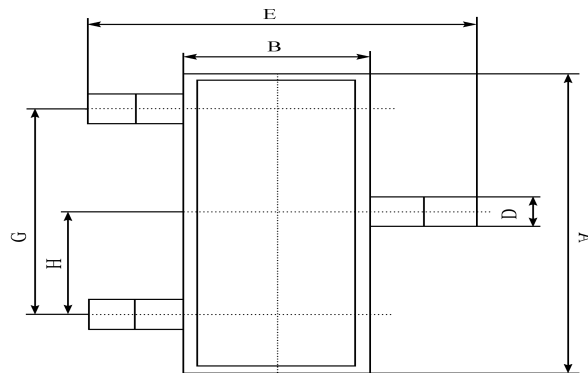
Electrical Characteristics

Characteristic	Symbol	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage ($I_D = 250\mu A, V_{GS}=0V$)	BV_{DSS}	30	—	—	V
Gate Threshold Voltage ($I_D = 250\mu A, V_{GS}=V_{DS}$)	$V_{GS(th)}$	0.7	1.1	1.4	V
Diode Forward Voltage Drop ($I_S = 1 A, V_{GS}=0V$)	V_{SD}	—	0.77	1	V
Zero Gate Voltage Drain Current ($V_{GS}=0V, V_{DS}=24V$)	I_{DSS}	—	—	1	μA
Gate Body Leakage ($V_{GS}=\pm 12V, V_{DS}=0V$)	I_{GSS}	—	—	± 100	nA
Static Drain-Source On-State Resistance ($I_D = 5.8A, V_{GS}=10V$)	$R_{DS(ON)}$	—	29	32	$m\Omega$
Static Drain-Source On-State Resistance ($I_D = 5 A, V_{GS}=4.5 V$)	$R_{DS(ON)}$	—	32	36	$m\Omega$
Static Drain-Source On-State Resistance ($I_D = 4 A, V_{GS}=2.5 V$)	$R_{DS(ON)}$	—	40	52	$m\Omega$
Input Capacitance ($V_{GS}=0V, V_{DS}=15 V, f=1MHz$)	C_{ISS}	—	823	—	pF
Output Capacitance ($V_{GS}=0V, V_{DS}=15 V, f=1MHz$)	C_{OSS}	—	99	—	pF
Turn-ON Time ($V_{DS}=15 V, V_{GS}=10 V, R_{GEN}=3\Omega$)	$t_{(on)}$	—	3.3	—	ns
Turn-OFF Time ($V_{DS}=15 V, V_{GS}=10 V, R_{GEN}=3\Omega$)	$t_{(off)}$	—	26.3	—	ns





SOT-23 PACKAGE OUTLINE Plastic surface mounted package



SOT-23	
A	2.90 ± 0.10
B	1.30 ± 0.10
C	1.00 ± 0.10
D	0.40 ± 0.10
E	2.40 ± 0.20
G	1.90 ± 0.10
H	0.95 ± 0.05
J	0.13 ± 0.05
K	0.00 - 0.10
M	≥ 0.2
N	0.60 ± 0.10
P	7 ± 2°

(UNIT): mm

