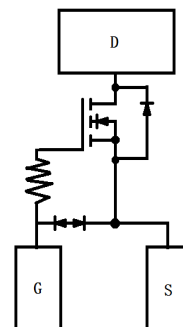
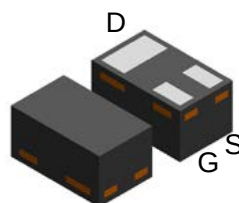


PRIMARY CHARACTERISTICS		
BV_{DSS}	$R_{DS(on)}$ Max	I_D
30V	$0.46\Omega @ V_{GS}=4.5V$	0.93A
	$0.68\Omega @ V_{GS}=2.5V$	

SOT-883 PACKAGE

Marking : N5


FEATURES

- Fast switching
- Low $R_{DS(ON)}$
- Trench MOSFET technology
- This is a Pb Free Device
- Excellent High Temperature Stability

MECHANICAL DATA

- Case : Molded plastic, SOT-883
- Polarity : Shown above
- Terminals : Plated terminals, solderable per MIL-STD-750, Method 2026
- Epoxy : UL94-V0 rated flame retardant

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Drain-to-Source Voltage	V_{DSS}	30	V
Gate-to-Source Voltage	V_{GS}	± 12	V
Drain Current (Note 1) Steady State ($T_a = 25^\circ\text{C}$) ($T_a = 100^\circ\text{C}$)	I_D	930 590	mA
Power Dissipation (Note 1) Steady State	P_D	715	mW
Pulsed Drain Current ($t_p = 10 \mu\text{s}$)	I_{DM}	3.7	A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	$-55 \sim +150$	$^\circ\text{C}$
Lead Temperature for Soldering Purposes ($1/8''$ from case for 10 s)	T_L	260	$^\circ\text{C}$

THERMAL CHARACTERISTICS

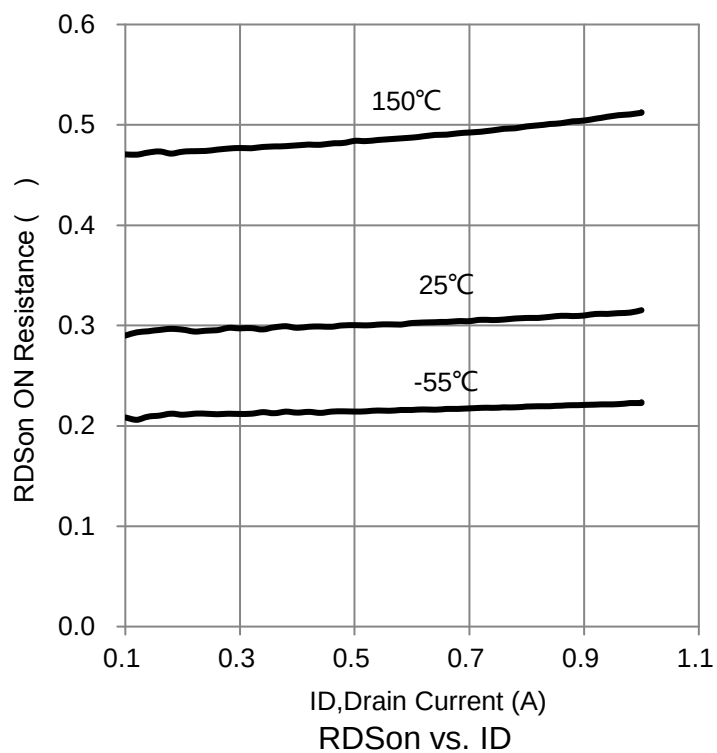
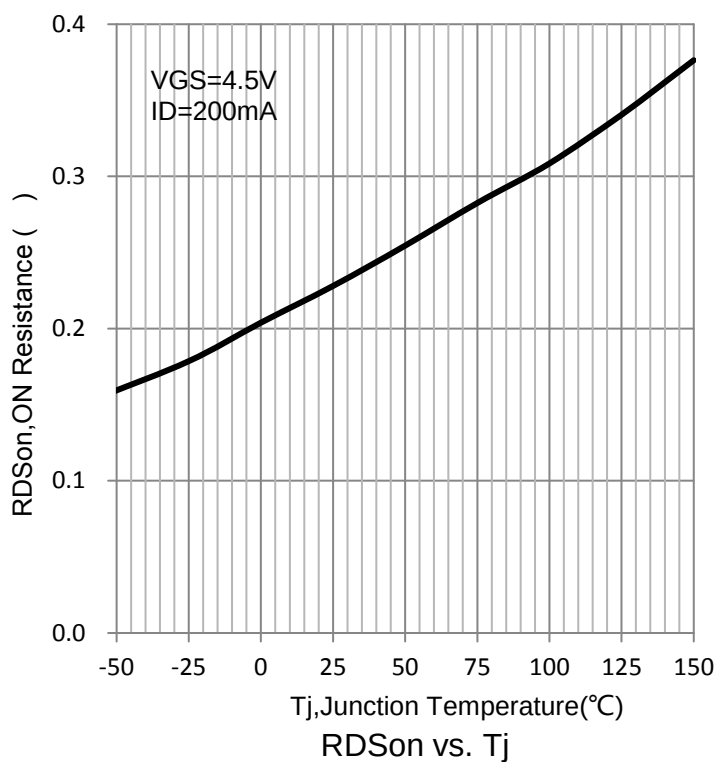
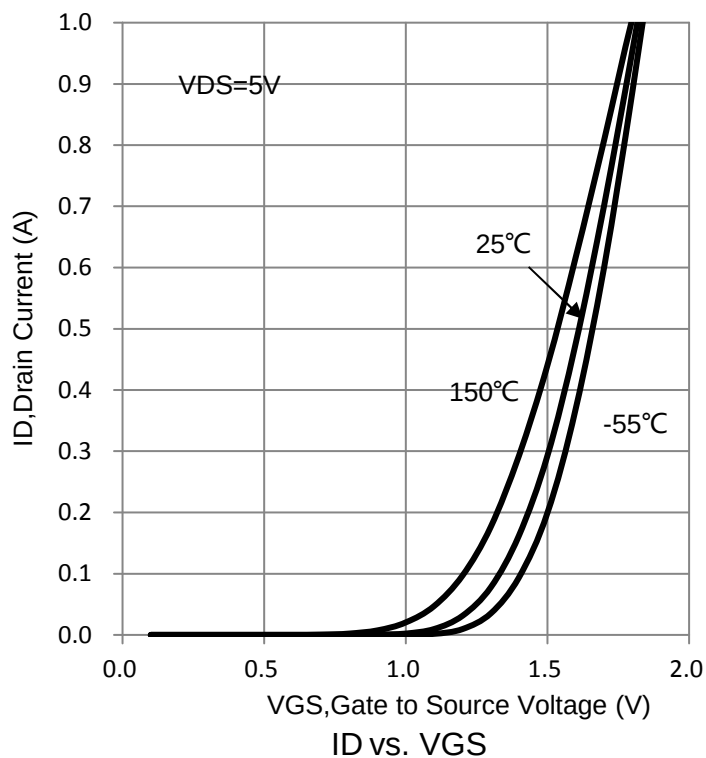
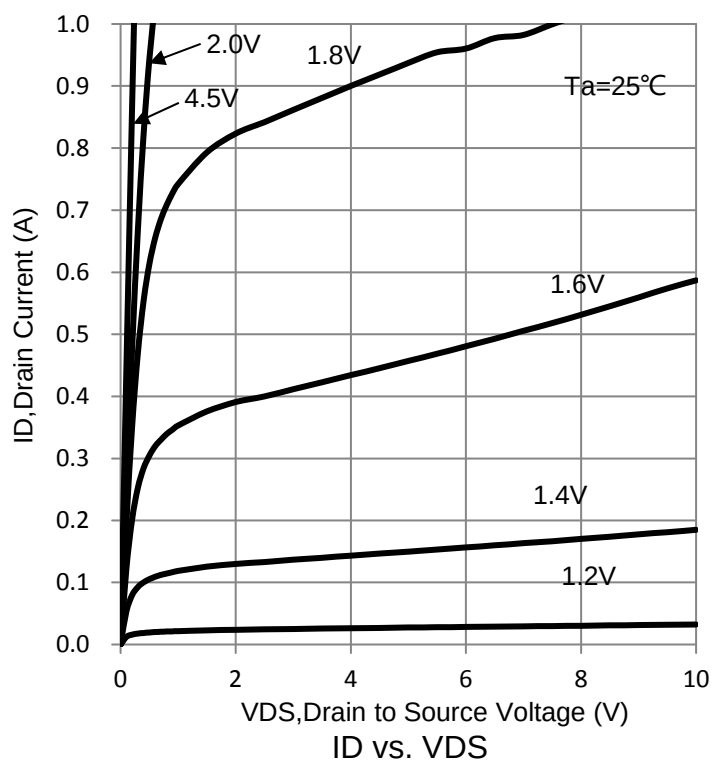
Parameter	Symbol	Limits	Unit
Junction-to-Ambient – Steady State (Note 1)	$R_{\theta JA}$	305	$^\circ\text{C/W}$

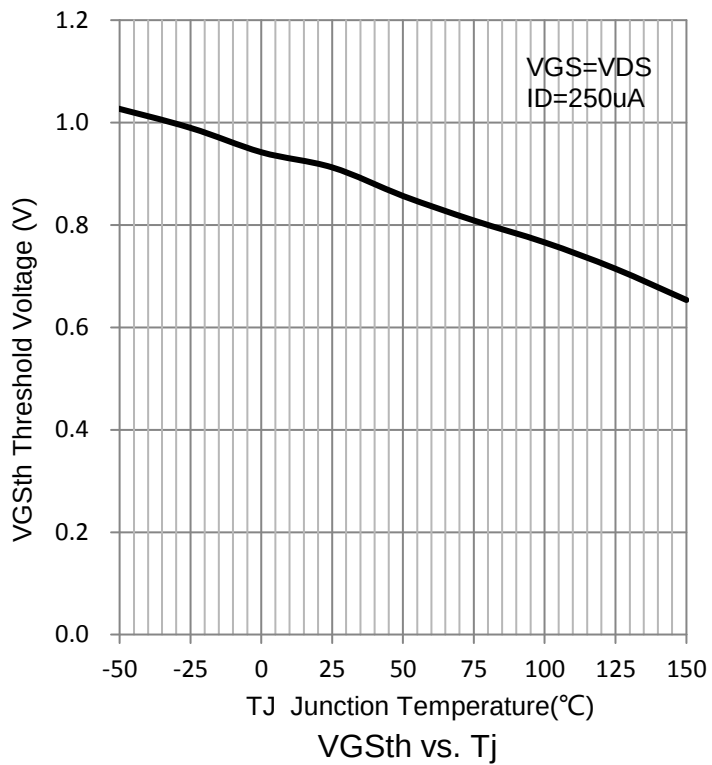
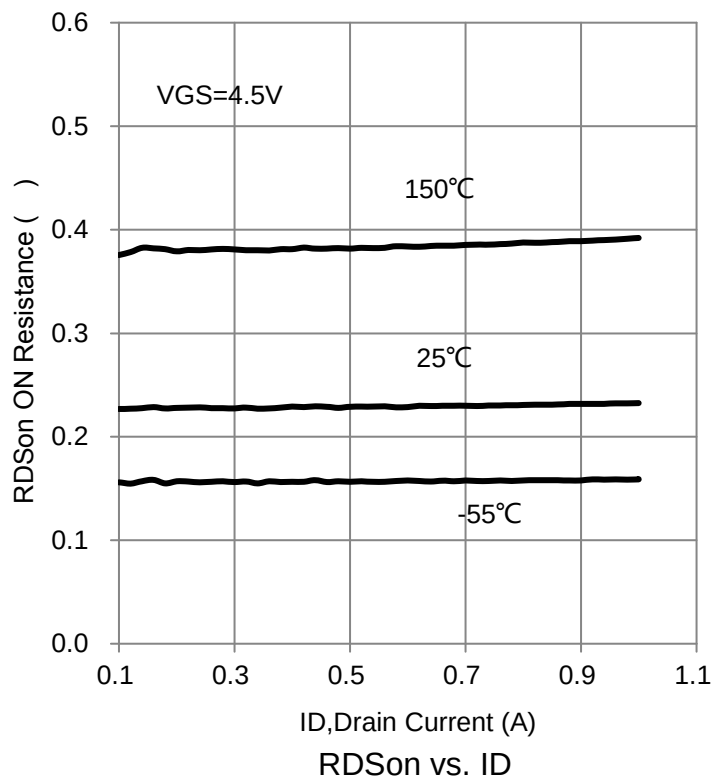
Note 1: Surface-mounted on FR4 board using 1 in sq pad size (Cu area = 1.127 in sq [1 oz] including traces)

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
STATIC CHARACTERISTICS					
Drain-Source Breakdown Voltage (VGS =0V, ID =250μA)	V(BR)DSS	30	-	-	V
Gate Threshold Voltage (VDS =VGS , ID =250μA)	VGS(th)	0.45	-	1.5	
Gate-Body Leakage Current (VDS =0V, VGS =±12V)	IGSS	-	-	±10	μA
Zero Gate Voltage Drain Current (VDS =30V, VGS =0V)	IDSS	-	-	1	
Drain-Source On-Resistance (VGS =4.5V, ID = 200mA)	RDS(ON)	-	-	0.46	
Drain-Source On-Resistance (VGS =2.5V, ID = 200mA)		-	-	0.68	
Diode Forward Voltage (IS =300mA, VGS =0V)	VSD	-	-	1.2	V
DYNAMIC PARAMETERS					
Total Gate Charge	(VDS =15V, VGS =4.5V, ID =1.0A)	Qg	-	0.65	nC
Gate-Source Charge		Qgs	-	0.14	
Gate-Drain Charge		Qgd	-	0.18	
Input Capacitance	(VDS =25V, VGS =0V, f=1MHz)	Ciss	-	37	pF
Output Capacitance		Coss	-	8.6	
Reverse Transfer Capacitance		Crss	-	5.4	
Turn-On Delay Time	(VDS =15V, RL =15 Ω, VGEN =4.5V, RG =6 Ω)	td(on)	-	6.5	ns
Rise Time		tr	-	9.5	
Turn-Off Delay Time		td(off)	-	14	
Fall Time		tf	-	5.5	

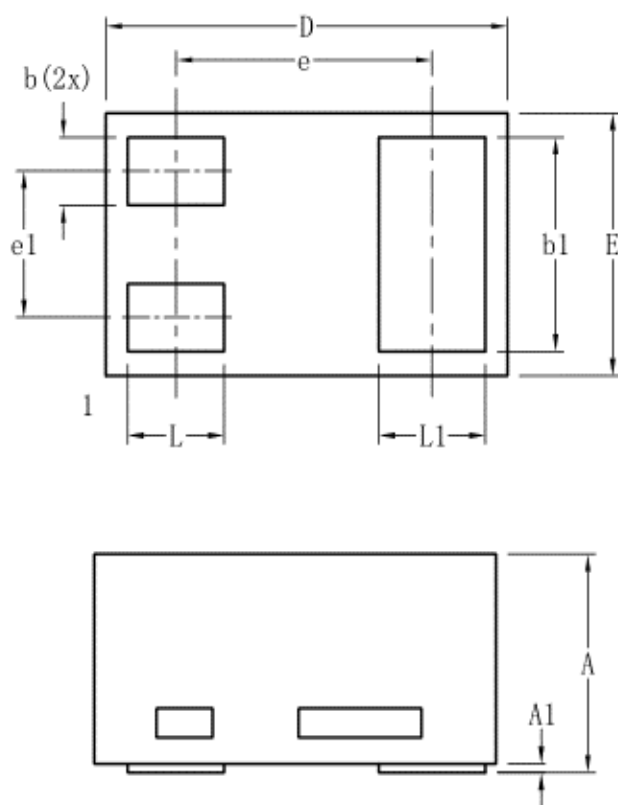
Note 2: Pulse test; pulse width ≤ 300μs, duty cycle ≤ 2%

ELECTRICAL CHARACTERISTICS CURVES


ELECTRICAL CHARACTERISTICS CURVES(Con.)


Outline Drawing

SOT-883



SOT883			
DIM	MIN	TYP	MAX
D	1.05	1.00	0.95
E	0.65	0.60	0.50
e	-	0.64	-
e1	-	0.34	-
L	0.19	0.24	0.29
L1	0.22	0.27	0.32
b	0.10	0.15	0.20
b1	0.44	0.49	0.54
A	0.43	0.48	0.53
A1	0	-	0.05
All Dimensions in mm			

Dimensions in inches and (millimeters)

Rev.A

Ordering Information:

Device PN	Packing
SE235N3T5 ⁽¹⁾ G ⁽²⁾ -WS ⁽³⁾	Tape&Reel: 10 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

(3) WS : Willas brand abbreviation, Label Type does not display

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