

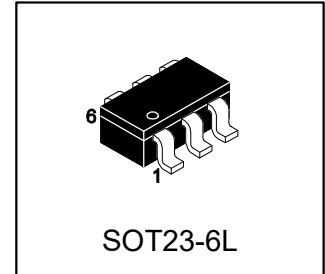
DN3408E

S-DN3408E

30V N-Channel Enhancement Mode MOSFET

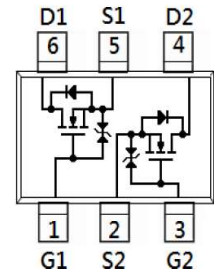
1. FEATURES

- ESD Protected 2KV HBM
- $R_{DS(ON)} < 75m\Omega$ @ $V_{GS}=10V, I_D=3A$
- $R_{DS(ON)} < 90m\Omega$ @ $V_{GS}=4.5V, I_D=2A$
- $R_{DS(ON)} < 150m\Omega$ @ $V_{GS}=2.5V, I_D=1A$
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.



2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
DN3408E	N8	3000/Tape&Reel



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

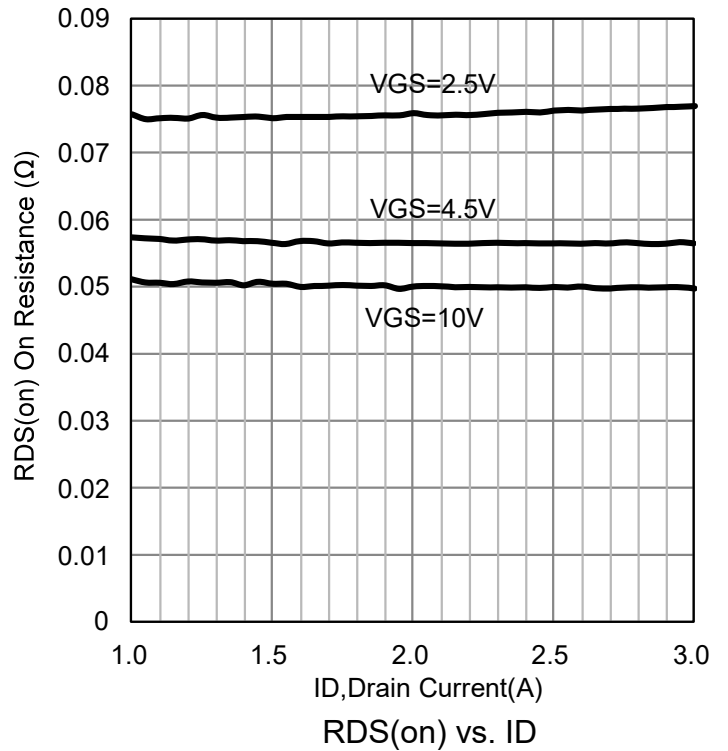
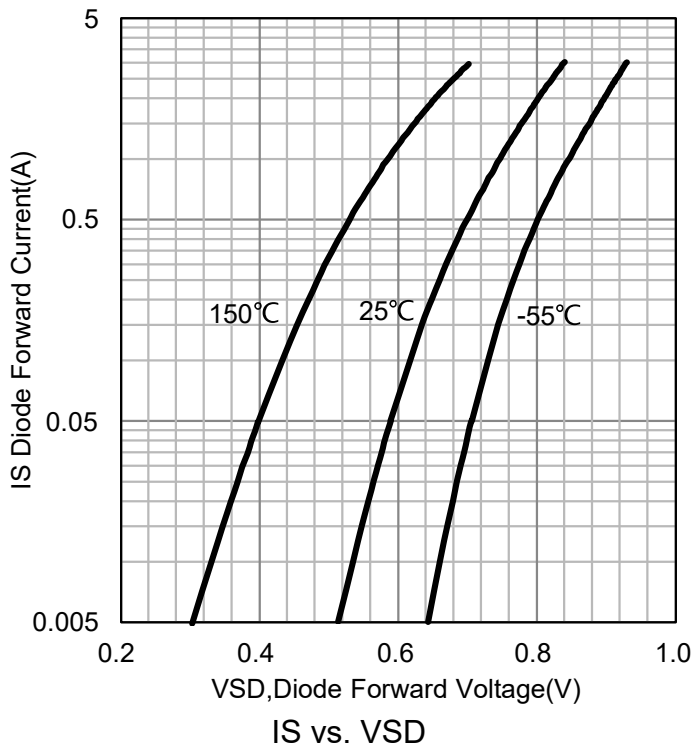
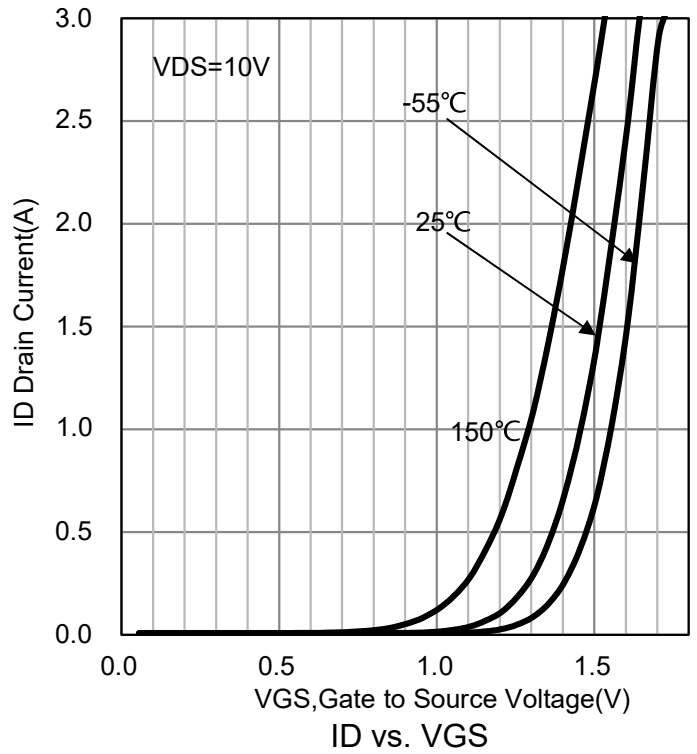
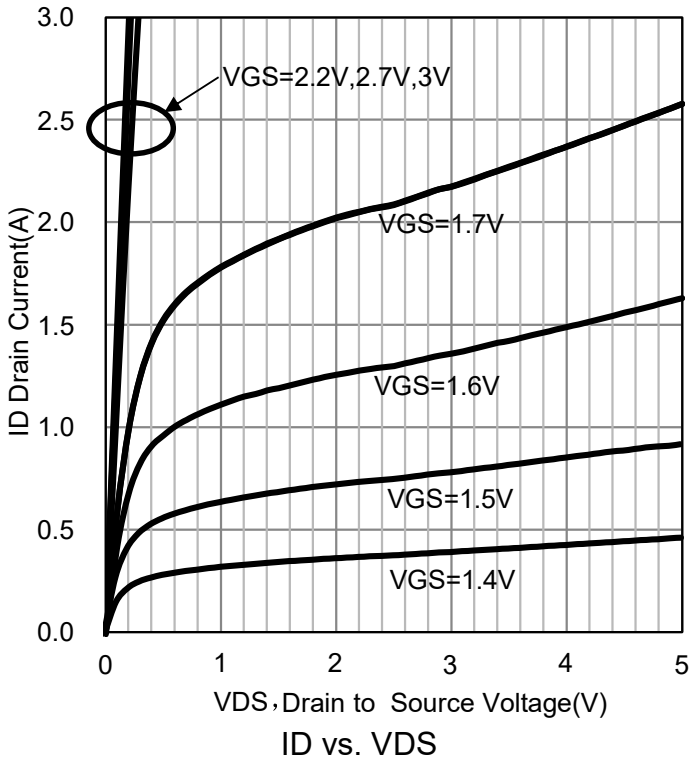
Parameter	Symbol	Limits	Unit	
Drain-Source Voltage	V _{DS}	30	V	
Gate-Source Voltage	V _{GS}	±12	V	
Drain Current-Continuous	I _D	2	A	
Drain Current-Pulsed	I _{DM}	8	A	
Power Dissipation	PD	T _a =25 °C	1.25	W
		Derate above 25 °C	10	mW/°C
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55~+150	°C	
Typical Thermal resistance-Junction to Ambient	R _{θJA}	100	°C/W	

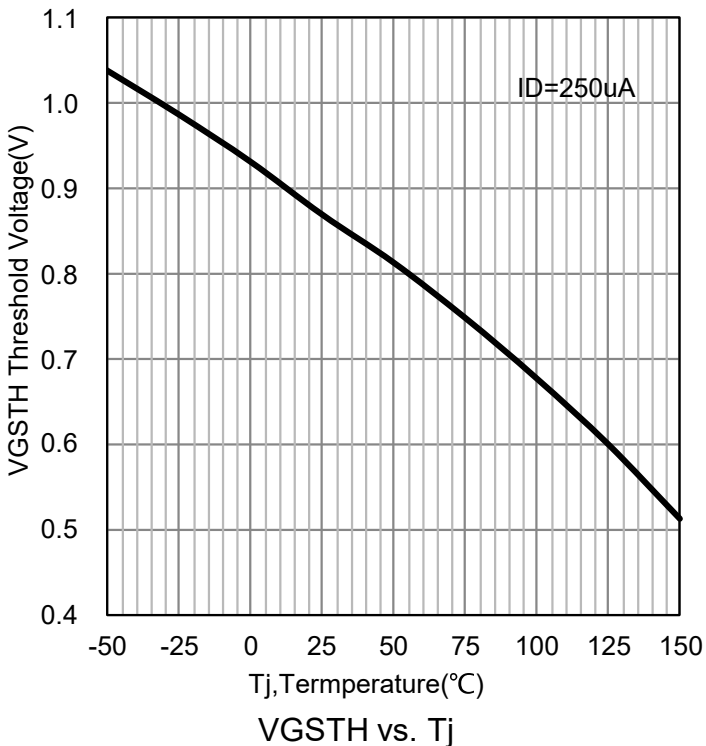
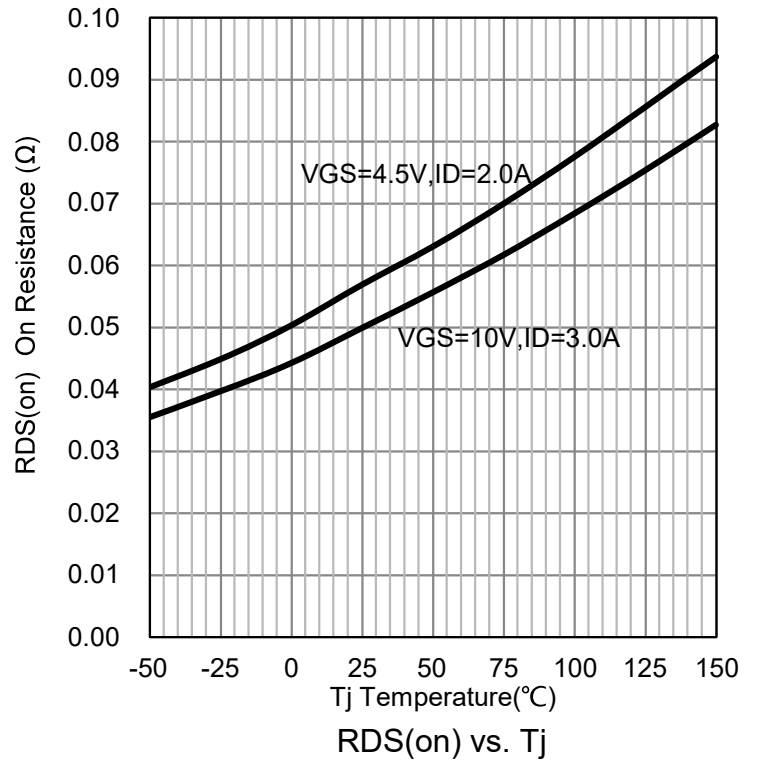
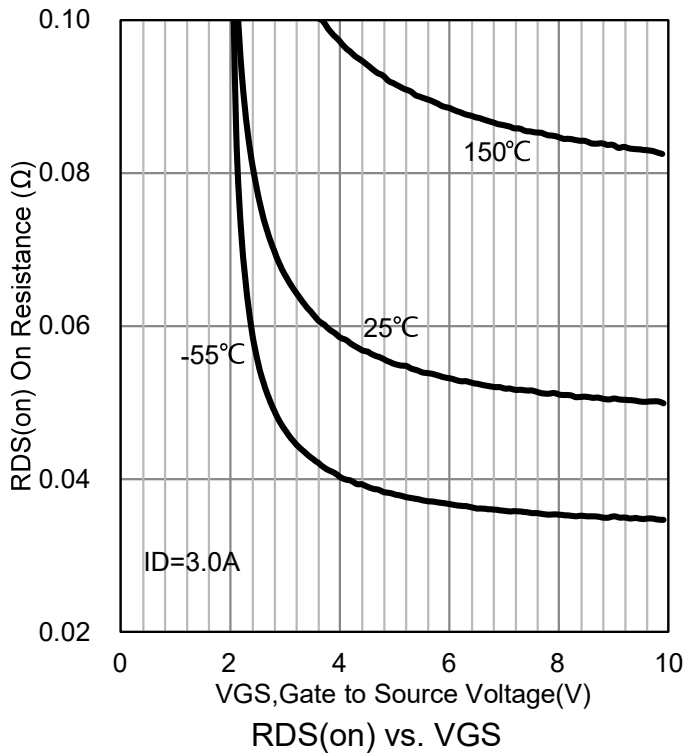


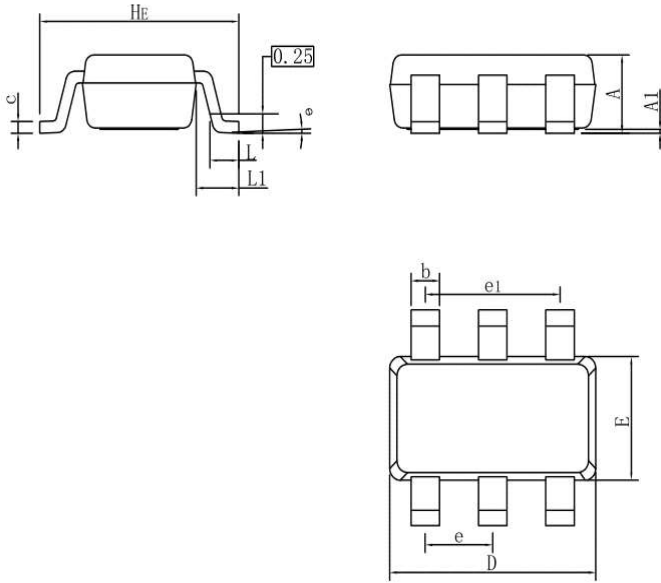
4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Static					
Drain-Source Breakdown Voltage (VGS =0V ID =250μA)	BVDSS	30	-	-	V
Gate Threshold Voltage (VDS =VGS ,ID =250μA)	VGS(th)	0.6	-	1.4	V
Drain-Source On-State Resistance (VGS =10V, ID =3A)	RDS(ON)	-	60	75	mΩ
(VGS =4.5V, ID =2A)		-	70	90	mΩ
(VGS =2.5V, ID =1A)		-	110	150	mΩ
Zero Gate Voltage Drain Current (VDS =30V,VGS =0V)	IDSS	-	0.01	1	μA
Gate-Body Leakage Current (VGS =±12V,VDS =0V)	IGSS	-	1.4	±10	μA
Dynamic					
Total Gate Charge	(VDS =15V, ID =2.1A,VGS =4.5V)	Qg	-	4.7	nC
Gate-Source Charge		Qgs	-	1.9	
Gate-Drain Charge		Qgd	-	1.6	
Input Capacitance	(VDS =15V, VGS =0V,f=1.0MHZ)	Ciss	-	247	PF
Output Capacitance		Coss	-	33	
Reverse Transfer Capacitance		Crss	-	5	
Turn-on Delay Time	(VDD =15V, ID =1A,VGS =4.5V,RG=6Ω)	td(on)	-	98	nS
Turn-on Rise Time		tr	-	128	
Turn-Off Delay Time		td(off)	-	2600	
Turn-Off Fall Time		tf	-	677	
Drain-Source Diode Characteristics					
Diode Forward Voltage (VGS =0V,IS =1.0A)	VSD	-	0.8	1.2	V
Diode Forward Current	IS	-	-	1.8	A

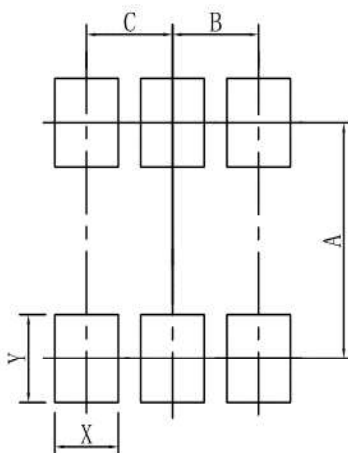


5.ELECTRICAL CHARACTERISTICS CURVES


5.ELECTRICAL CHARACTERISTICS CURVES (Con.)


6.OUTLINE AND DIMENSIONS


SOT23-6L			
DIM	MIN	NOR	MAX
A	0.90	1.00	1.10
A1	0.01	0.06	0.10
b	0.30	0.40	0.50
c	0.10	0.17	0.20
D	2.80	2.90	3.00
E	1.50	1.60	1.70
e	0.85	0.95	1.05
e1	1.80	1.90	2.00
L	0.20	0.40	0.60
L1	0.60REF		
HE	2.60	2.80	3.00
θ	0°	-	10°

7.SOLDERING FOOTPRINT


SOT23-6L	
DIM	(mm)
X	0.70
Y	0.90
A	2.40
B	0.95
C	0.95

