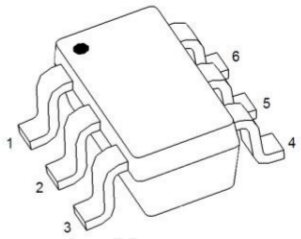
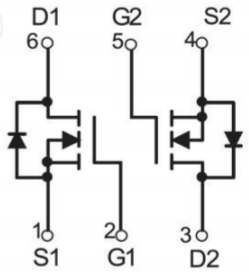
Product Summary

- V_{DS} 30V
- I_D 0.22A
- $R_{DS(ON)}$(at V_{GS}=10V) ＜3500mΩ
- 100% EAS Tested
- 100% ▽V_{DS} Tested



General Description

- Trench Power MOSFET technology
- Excellent package for heat dissipation
- High density cell design for low $R_{DS(ON)}$
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free



SOT-363

Applications

- Power switching application
- Uninterruptible power supply
- DC-DC convertor
- Motor drivers

Absolute Maximum Ratings(T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D	0.22	A
Power Dissipation	P_D	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

Ordering Information

Order number	Package	Operation Temperature Range	MSL Grade	Ship, Quantity	Green
NX3008CBKS,115-JSM	SOT-363	-55~+150℃	1	T&R,3000	Rohs

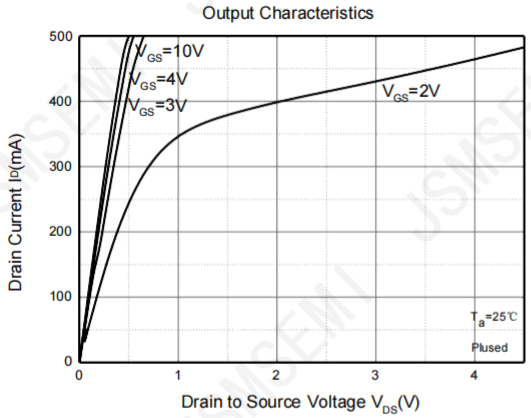
Mosfet Electrical Characteristics(Ta=25℃ unless otherwise noted)

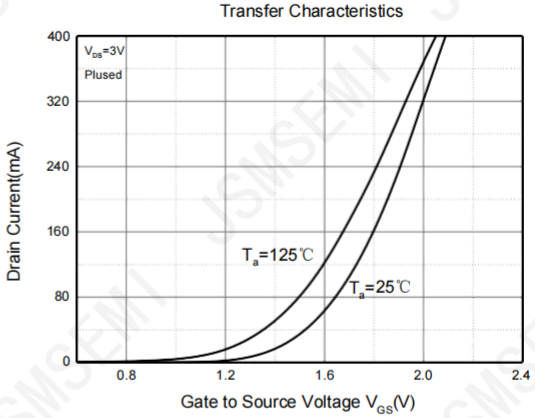
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS}= 0V, I_D=250μA	30			V
Zero gate voltage drain current	I_{DSS}	V_{DS}=30V,V_{GS}= 0V			0.5	μA
Gate-body leakage current	I_{GSS}	V_{GS}=±20V, V_{DS}= 0V			±500	nA
Gate threshold voltage[1]	$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=1mA	0.8	1.2	1.5	V
Drain-source on-resistance[1]	$R_{DS(on)}$	V_{GS}=10V, I_D=220mA		1.0	3.5	Ω
		V_{GS}=4.5V, I_D=220mA		1.1	6.0	
Forward tranconductance[1]	g_{FS}	V_{DS}=10V, I_D=220mA		0.15		S
Dynamic characteristics[2]						
Input Capacitance	C_{iss}	V_{DS}=25V,V_{GS}=0V,f=1MHz		26.5		pF
Output Capacitance	C_{oss}			12.9		
Reverse Transfer Capacitance	C_{rss}			5.9		
Switching Characteristics[1,2]						
Turn-on delay time	$t_{d(on)}$	V_{DD}=30V,I_D=290mA, V_{GS}=10V,R_G=6Ω			5	nS
Turn-on rise time	t_r				18	
Turn-off delay time	$t_{d(off)}$				36	
Turn-off fall time	t_f				14	
Source-Drain Diode characteristics[1]						
Diode Forward voltage	V_{DS}	I_S=440mA, V_{GS}= 0V			1.4	V

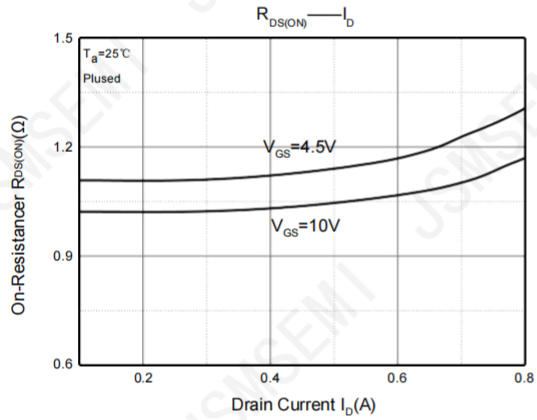
Notes:

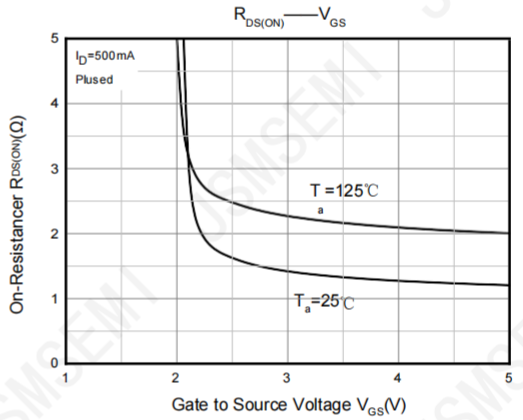
1. Pulse Test ; Pulse Width ≤300μs, Duty Cycle ≤2%.
2. These parameters have no way to verify.

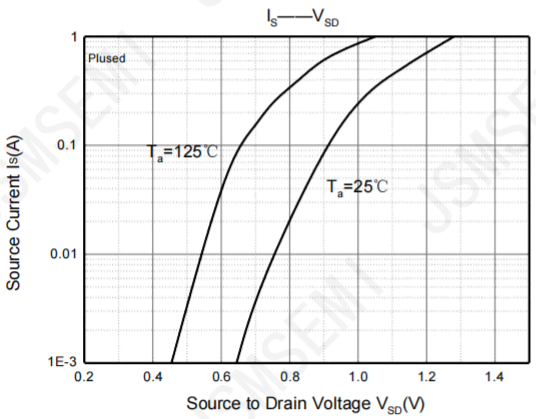
Typical Electrical and Thermal Characteristics

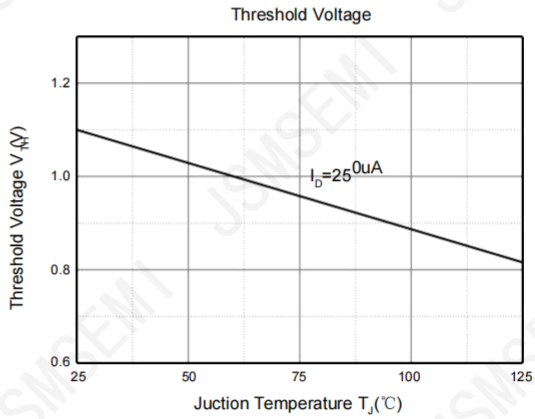




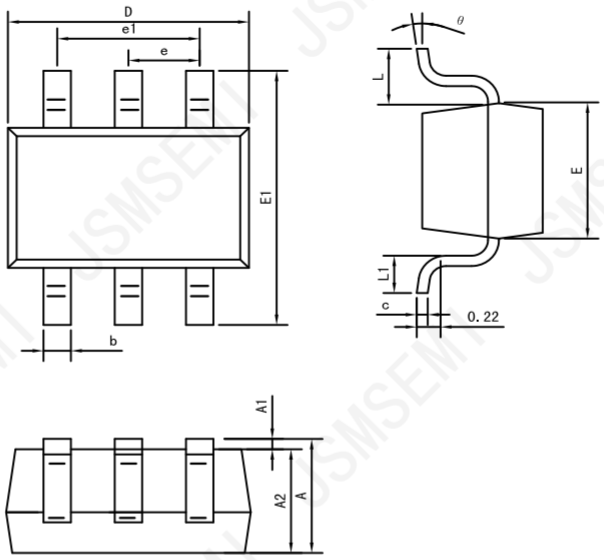








Package Outline Dimensions



Symbol	Dimension in Millimeters	
	Min	**Max**
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP	
e1	1.200	1.400
L	0.525 REF	
L1	0.260	0.460
θ	0°	8°

Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

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