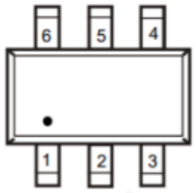
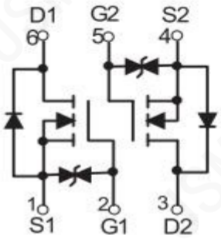
Product Summary

- V_{DS} 30V
- I_D 0.34A
- $R_{DS(ON)}$(at V_{GS}=10V) ＜5300mΩ
- 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



Applications

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

Maximum Ratings（Ta=25℃）

Symbol	Parameter	Value	Units
V_{DS}	Drain-source Voltage	30	V
V_{GS}	Gate-source-Voltage	±20	V
I_D	Drain Current	340	mA
Pd	Total Power Dissipation	150.	mW
T_J	Junction Temperature	150	℃
$T_{STG,}$	Storage Temperature	-55 to 150	℃
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	820	℃/W

Eelectrical Characteristics（Ta=25℃）

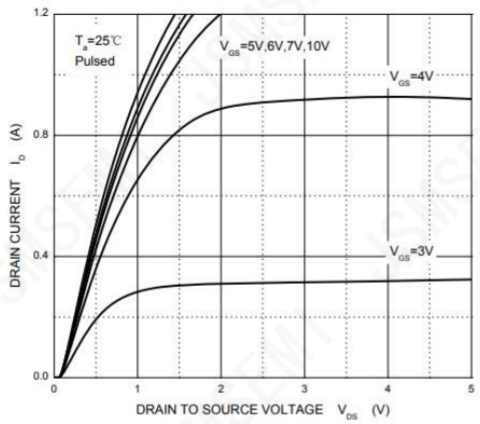
Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
$V_{(BR)Dss}$	Drain-source Breakdown Voltage	V_{GS}=0V,I_D=250uA	30			V
$V_{GS(th)}$	Gate-Threshold Voltage (note 1)	V_{DS}=V_{GS},I_D=1mA	1.0		2.5	V
I_{GSS}	Gate－body Leakage	V_{DS}=0V,V_{GS}=±20V			±10	uA
Idss	Zero Gate Voltage Drain Current	V_{DS}=48V,V_{GS}=0V			1	uA
R_{DSON}	Drain-source On-resistance (note 1)	V_{GS}=4.5V,I_D=200mA V_{GS}=10V,I =500mA			5.3 5.0	Ω
V_{SD}	Diode Forward Voltage (note 1)	V_{GS}=0V,Is=300mA			1.5	V
Q_r	Recovered charge	V_{GS}=0V,Is=300mA V_R=25V, dIs/dt=-100A/μs		30		nC
Dynamic Characteristics						
Ciss	Input Capacitance	V_{DS}=10V V_{GS}=0V f=1MHz			40	pF
Coss	Output Capacitance				30	
Crss	Reverse Transfer Capacitance				10	
Switching Characteristics						
td(on)	Turn-on delay time	V_{DD}=50V, V_{Gs}=10V, R_L=250Ω, R_{GS}=50Ω, R_{GEN}=50Ω			10	ns
td(off)	Turn-off delay time				15	
trr	Reverse recovery Time	V_{GS}=0V,I_S=300mA,V_R=25V, dIs/dt=-100A/μs		30		
Gate-Source Zener Diode						
BV_{GSO}	Gate-Source Breakdown Voltage	Igs=±1mA (Open Drain)	±21.5		±30	V

Note:

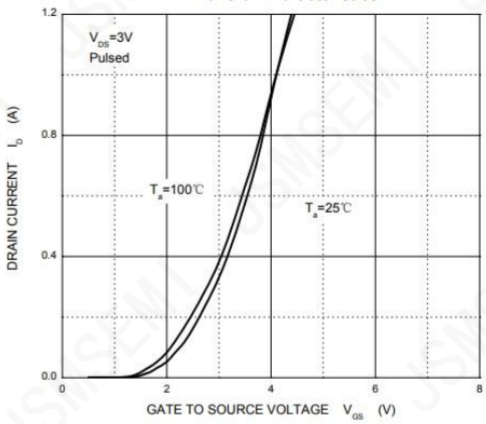
1. Pulse Test：Pulse width≤300μs, duty cycle≤2%.

TYPICAL CHARACTERISTICS

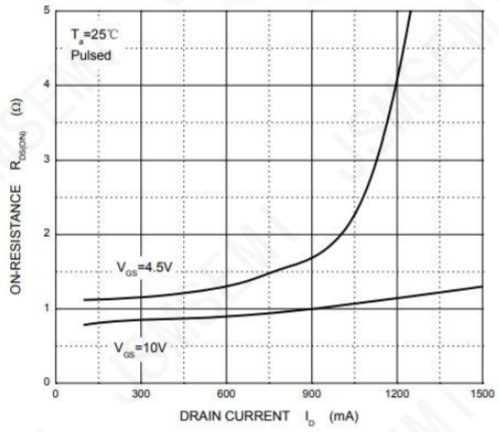
Output Characteristics



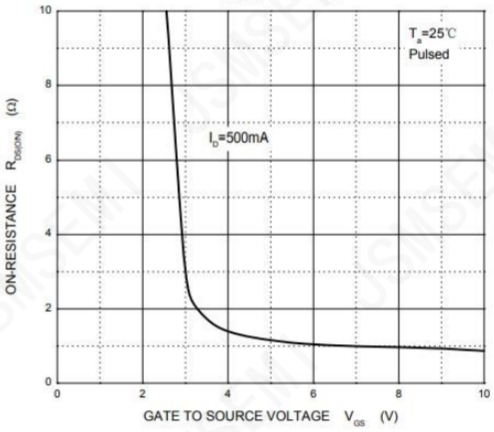
Transfer Characteristics



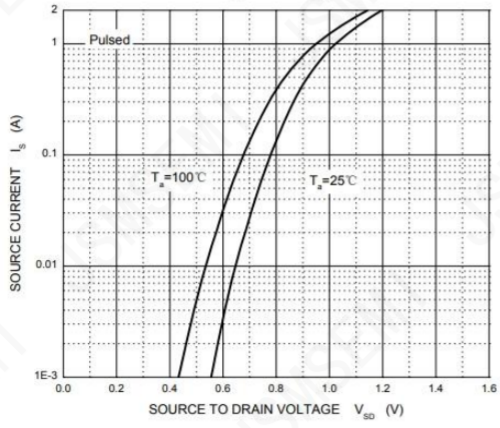
$R_{DS(ON)}$ — I_D



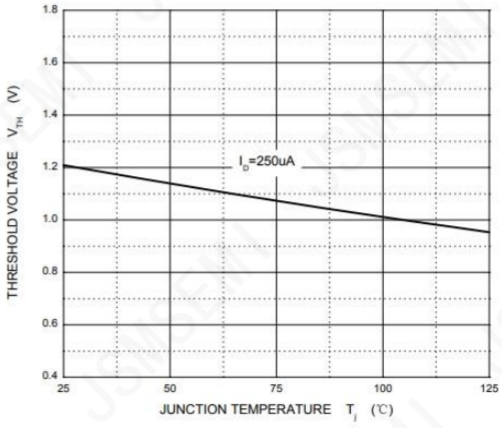
$R_{DS(ON)}$ — V_{GS}



I_S — V_{SD}



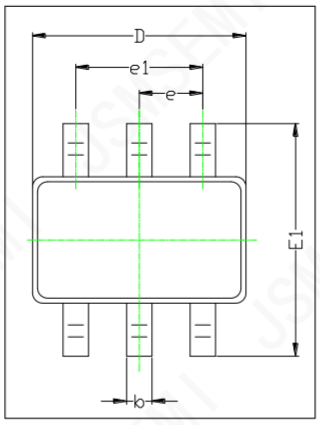
Threshold Voltage



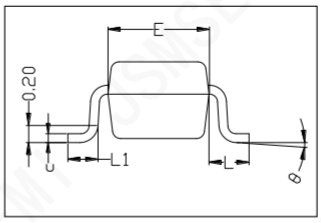
PACKAGE DIMENSIONS

SOT363

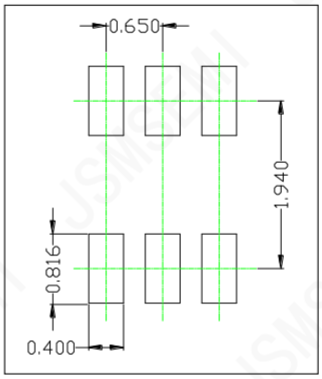
TOP VIEW



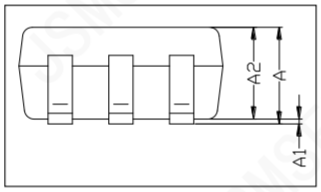
SIDE VIEW



SOLDRING PATTERN



FRONT VIEW



SYMBOL	DIMENSIONS IN MILLIMETER	
	MIN	MAX
A	0.900	1.000
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.100	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.400
e	0.650 TYP.	
e1	1.200	1.400
L	0.525 REF.	
L1	0.260	0.460
θ	0°	8°

Notice:

1.Lead plating: Pb free solder

2.Lead thickness includes solder plating

3.Lead frame: CAC-5

4.Other Tolerance: ±0.05

5. Dimensions are exclusive of Burrs,Mold Flash and Tie Bar extrusions

6.Unit: mm

Revision History

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

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