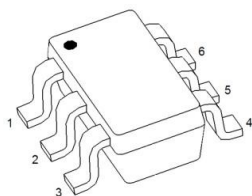
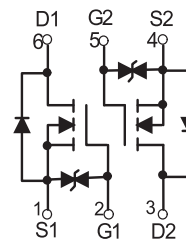
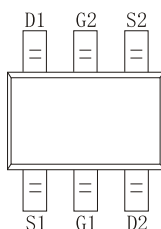


N-channel MOSFET



SOT-363

MARKING: TE*


Features

- High density cell design for Low $R_{DS(on)}$
- Voltage controlled small signal switch
- Rugged and reliable
- High saturation current capability
- ESD protected

Applications

- Load Switch for Portable Devices
- DC/DC Converter

MOSFET MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$ unless otherwise noted)

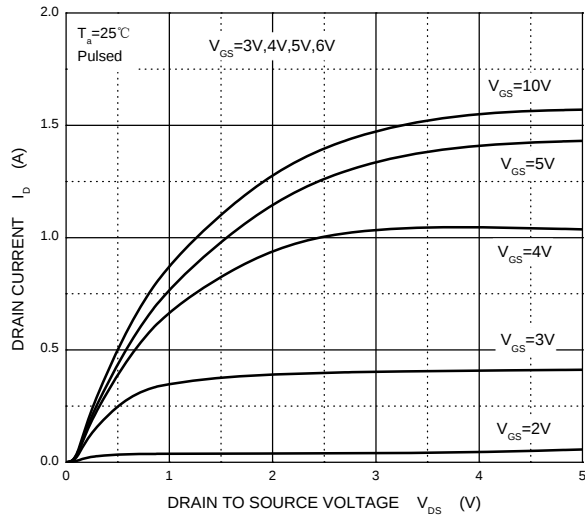
Symbol	Parameter	Value	Unit
V_{DS}	Drain-Source voltage	30	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Continuous Drain Current	0.34	A
P_D	Power Dissipation	0.2	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55-150	$^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	625	$^\circ\text{C/W}$

T_a=25 °C unless otherwise specified

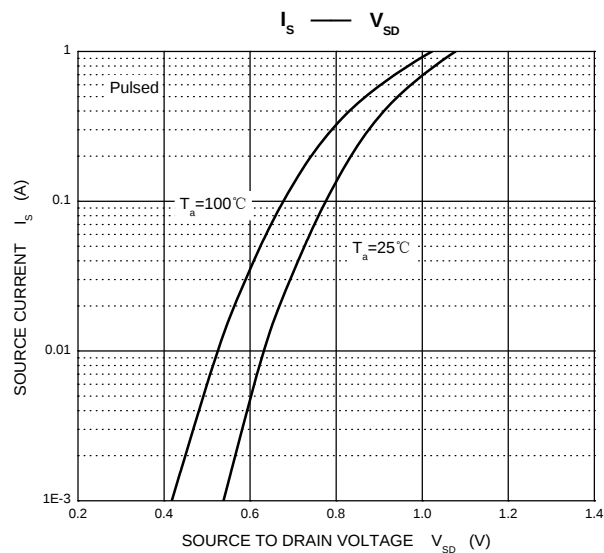
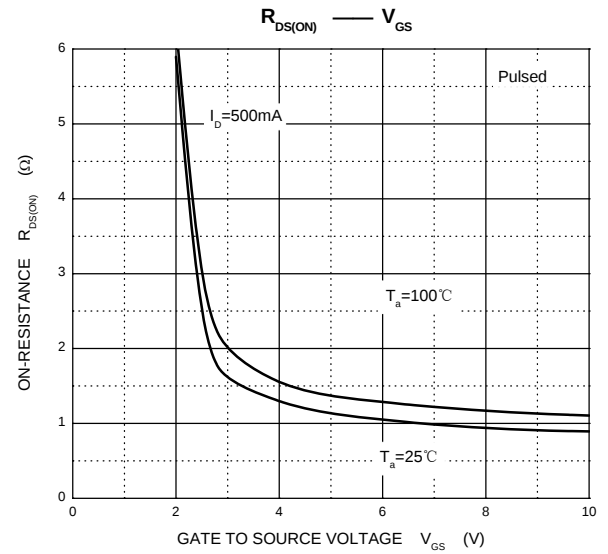
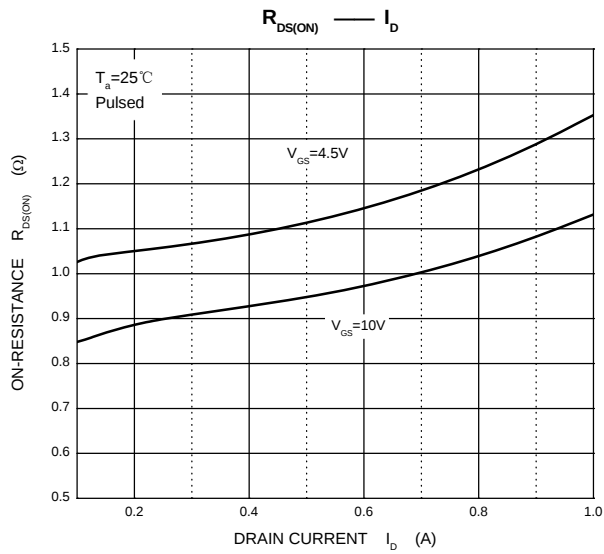
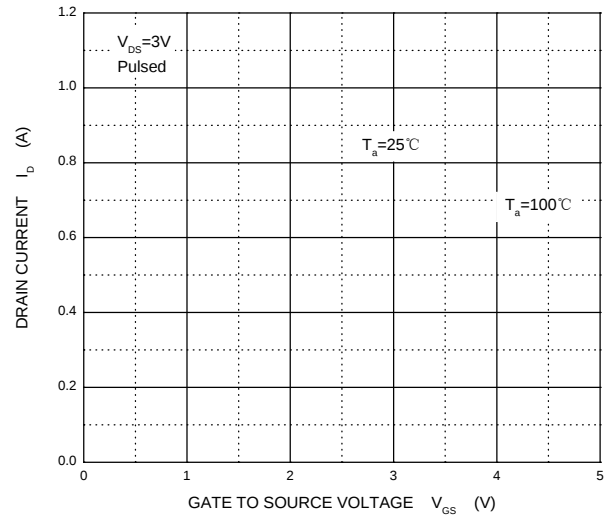
Parameter	Symbol	Test Condition	Min	Typ	Max	Units
Off characteristics						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D =250μA	30			V
Gate-body leakage	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±100	nA
Zero gate voltage drain current	I _{DSS}	V _{DS} =50V, V _{GS} =0V			0.5	μA
		V _{DS} =30V, V _{GS} =0V			100	nA
On characteristics						
Gate-threshold voltage (note 1)	V _{GS(th)}	V _{DS} =V _{GS} , I _D =1mA	0.6	1.1	1.50	V
Static drain-source on-resistance (note 1)	R _{DS(on)}	V _{GS} =10V, I _D =0.22A		1.5	2	Ω
		V _{GS} =4.5V, I _D =0.22A		2	3	
Forward transconductance (note 1)	g _{FS}	V _{DS} =10V, I _D =0.22A	0.12			S
Dynamic characteristics (note 2)						
Input capacitance	C _{iss}	V _{DS} =25V,V _{GS} =0V, f=1MHz		27		pF
Output capacitance	C _{oss}			13		
Reverse transfer capacitance	C _{rss}			6		
Switching characteristics						
Turn-on delay time (note 1,2)	t _{d(on)}	V _{DD} =30V, V _{DS} =10V, I _D =0.29A,R _{GEN} =6Ω			5	ns
Rise time (note 1,2)	t _r				18	
Turn-off delay time (note 1,2)	t _{d(off)}				36	
Fall time (note 1,2)	t _f				14	
Drain-source body diode characteristics						
Body diode forward voltage (note 1)	V _{SD}	I _S =0.44A, V _{GS} = 0V			1.4	V

Typical Characteristics

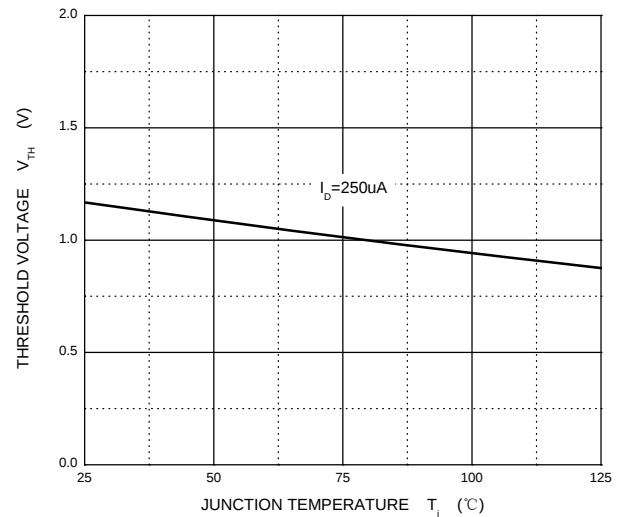
Output Characteristics



Transfer Characteristics

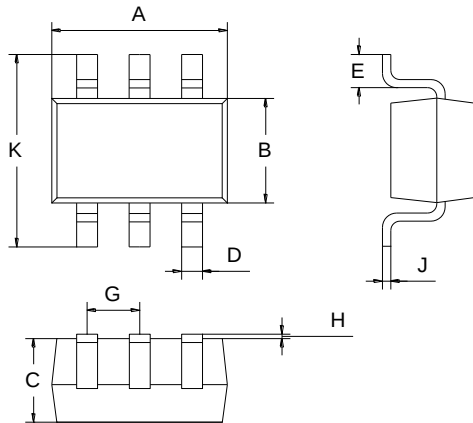


Threshold Voltage



Plastic surface mounted package

SOT-363



SOT-363		
Dimension	Min.	Max.
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

SOLDERING FOOTPRINT

