Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
20V	250mΩ@-4.5V	1A
	350mΩ@2.5V	
-20V	650mΩ@-4.5V	-0.7A
	850mΩ@-2.5V	

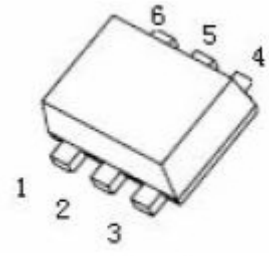
Feature

- Trench Technology
- Supper high density cell design for extremely low $R_{ds(on)}$
- Exceptional ON resistance and maximum DC current capability
- ESD Protected：2KV

Applications

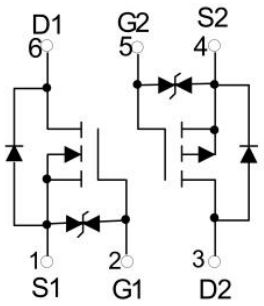
- Driver: Relays, Solenoids, Lamps, Hammers
- Power supply converters circuit
- Load/Power Switching for potable device

Package



SOT-563

Circuit diagram



Marking

26K =Device Code

Absolute maximum ratings

(T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	0.15	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

Maximum Ratings - N-Channel Q1

(T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	±12	V
Continuous Drain Current	I_D	1	A

Maximum Ratings - P-Channel Q2

(T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	±12	V
Continuous Drain Current	I_D	0.7	A

Electrical characteristics - N-Channel Q1

(T_A=25℃, unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	$BV_{(BR)DSS}$	V_{GS} = 0V, I_D =250μA	20			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =16V, V_{GS} = 0V			1	uA
Gate-body leakage current	I_{GSS}	V_{GS} =±10V, V_{DS} = 0V			±10	uA
Gate threshold voltage (1)	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =250μA	0.35	0.65	1	V
Drain-source on-resistance	$R_{DS(on)}$	V_{GS} =4.5V, I_D =0.5A		0.25	0.38	mΩ
		V_{GS} =2.5V, I_D =0.2A		0.35	0.45	
		V_{GS} =1.8V, I_D =0.1A		0.4		
Dynamic Characteristics						
Input capacitance	C_{iss}	V_{DS}=16V, V_{GS}=0V, f=1MHz		79	120	pF
Output capacitance	C_{oss}			13	20	
Reverse transfer capacitance	C_{rss}			9	15	
Switching Characteristics						
Turn-on Delay Time	$T_{d(on)}$	V_{GS}=4.5V, V_{DS}=10V, I_D =500mA, R_{GEN} =10Ω		6.7		nS
Turn-on Rise Time	T_r			4.8		
Turn-Off Delay Time	$T_{d(off)}$			17.3		
Turn-Off Fall Time	t_f			7.4		
Source-Drain Diode Characteristics						
Body Diode Voltage	V_{SD}	I_S=0.5A, V_{GS} = 0V		0.7	1.3	V

Electrical characteristics - P-Channel Q2

(T_A=25℃, unless otherwise noted)

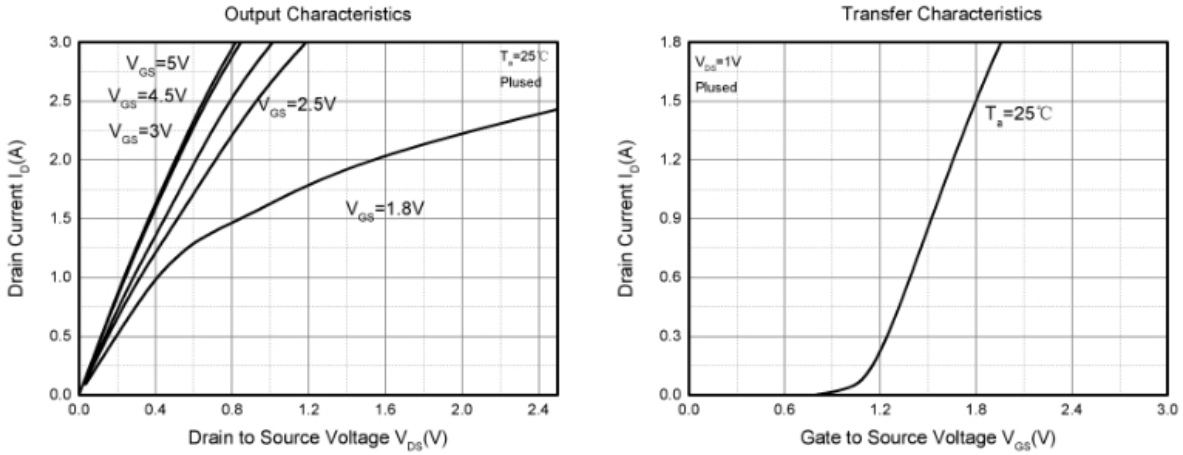
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	$BV_{(BR)DSS}$	V_{GS} = 0V, I_D =-250μA	-20			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =-16V, V_{GS} = 0V			-1	uA
Gate-body leakage current	I_{GSS}	V_{GS} =±10V, V_{DS} = 0V			±10	uA
Gate threshold voltage (1)	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =-250μA	-0.35	-0.65	-1	V
Drain-source on-resistance (1)	$R_{DS(on)}$	V_{GS} =-4.5V, I_D =-0.5A		0.65	0.75	Ω
		V_{GS} =-2.5V, I_D =-0.2A		0.85	1.0	
		V_{GS} =-1.8V, I_D =-0.1A		1.2		
Dynamic Characteristics2)						
Input capacitance	C_{iss}	V_{DS}=-16V, V_{GS}=0V, f=1MHz		113		pF
Output capacitance	C_{oss}			15		
Reverse transfer capacitance	C_{rss}			9		
Turn-on Delay Time	$T_{d(on)}$	V_{DS}=-10V, I_D =-200mA, V_{GS}=-4.5V, R_{GEN} =10Ω		9		nS
Turn-on Rise Time	T_r			5.7		
Turn-Off Delay Time	$T_{d(off)}$			32.6		
Turn-Off Fall Time	t_f			20.3		
Source-Drain Diode Characteristics						
Diode Forward voltage	V_{SD}	I_S=-0.5A, V_{GS} = 0V			-1.2	V

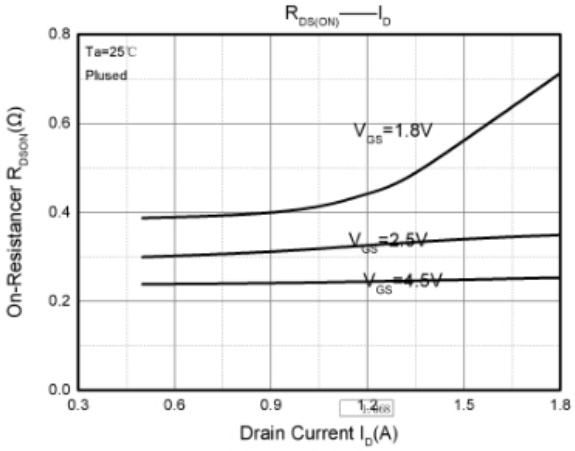
Notes:

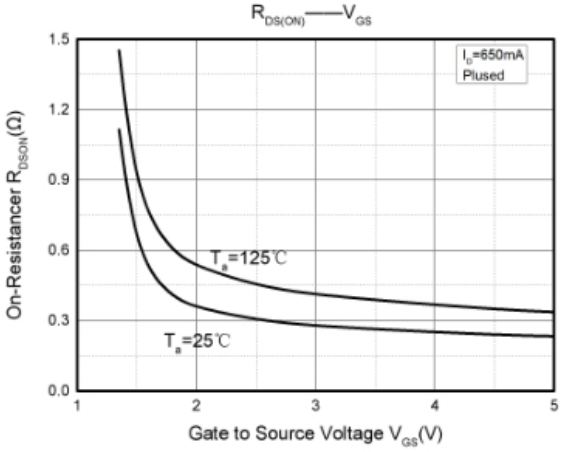
1. Pulse Test: Pulse Width < 300μs, Duty Cycle ≤2%.

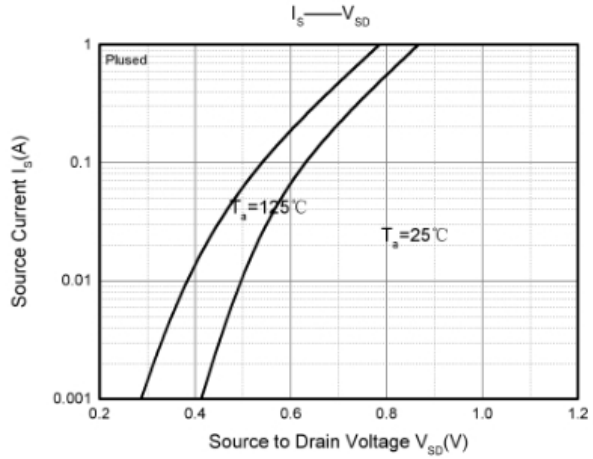
2. Guaranteed by design, not subject to production testing.

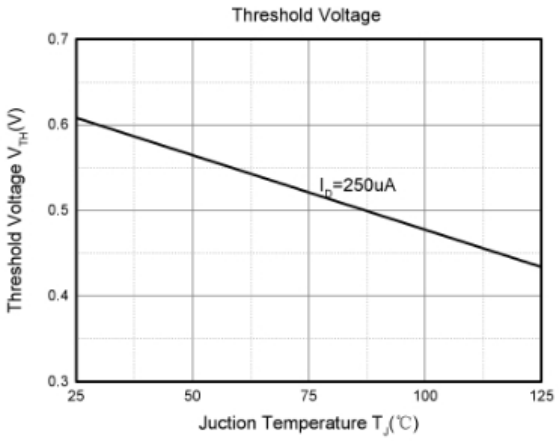
Typical Characteristics - N-Channel Q1



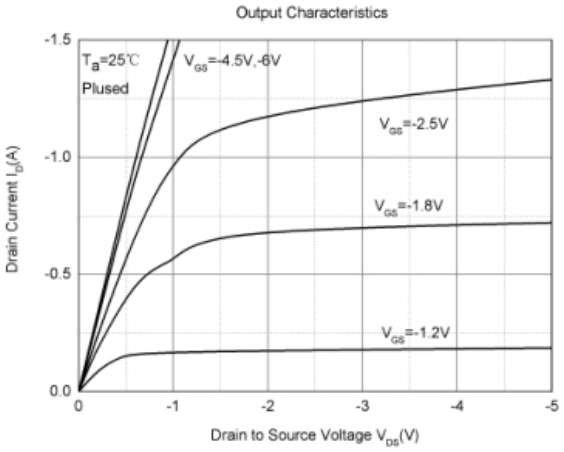


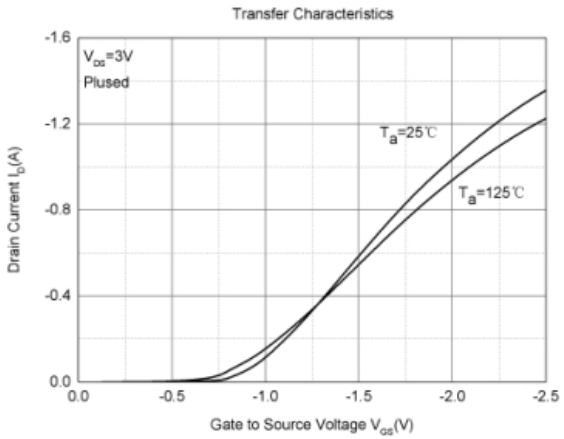


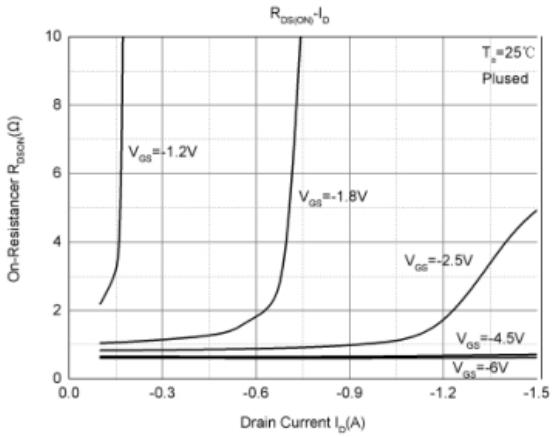


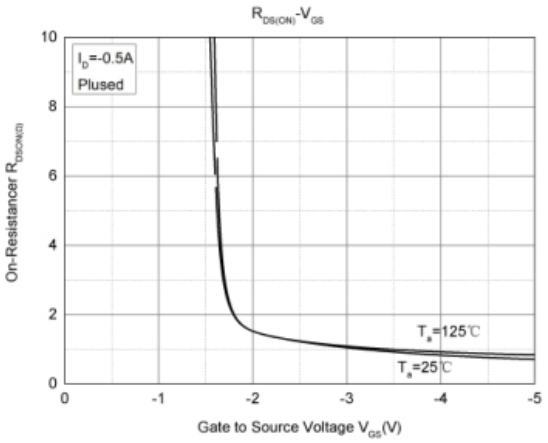


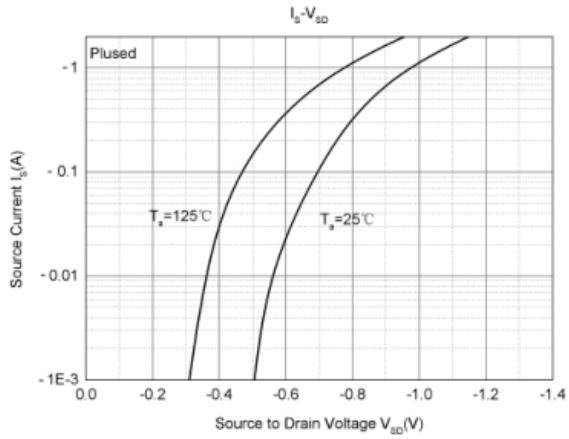
Typical Characteristics - P-Channel Q2

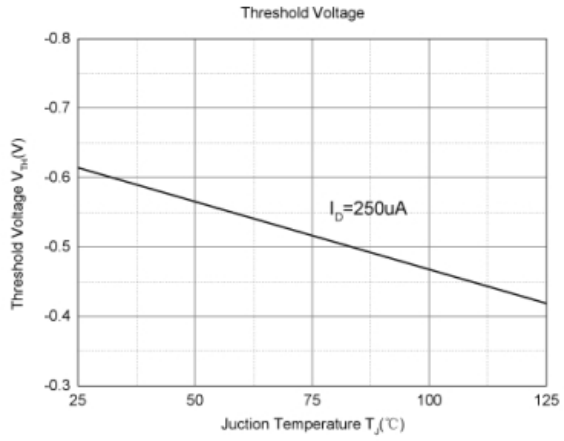




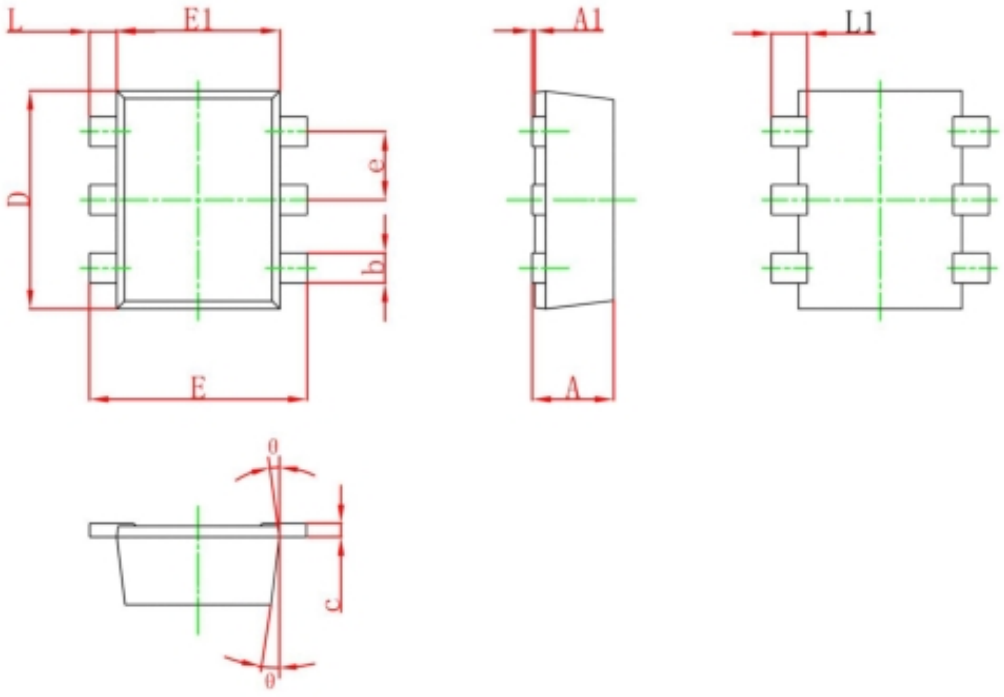








SOT-563 Package Information



Symbol	Dimensions In Millimeters	
	Min	Max
A	0.525	0.600
A1	0.000	0.050
e	0.450	0.550
c	0.090	0.160
D	1.500	1.700
b	0.170	0.270
E1	1.100	1.300
E	1.500	1.700
L	0.100	0.300
L1	0.200	0.400
θ	7°Ref.	