Product Summary

| V$_{(BR)DSS}$	R$_{DS(on)TYP}$	I$_D$
-20V	400mΩ@-4.5V	-0.66A
	550mΩ@-2.5V	

Feature

- Surface Mount Package
- P-Channel Switch with Low RDS(on)
- Operated at Low Logic Level Gate Drive

Applications

- Load/Power Switching
- Interfacing Switching
- Battery Management for Ultra Small Portable Electronics

Package

SOT-563
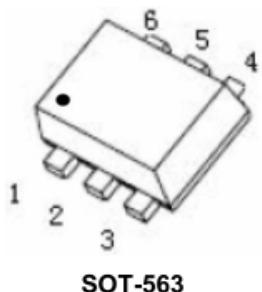
Circuit diagram

Marking

06K =Device Code
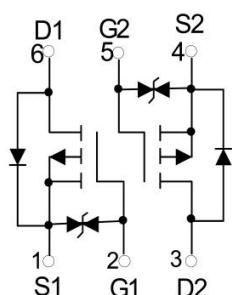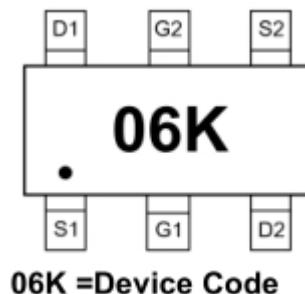
Absolute maximum ratings

(T$_a$=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V$_{DS}$	-20	V
Gate-Source Voltage	V$_{GS}$	±10	V
Continuous Drain Current	I$_D$	-0.66	A
Pulsed Drain Current	I$_{DM}$	-1.2	A
Power Dissipation	P$_D$	0.15	W
Thermal Resistance from Junction to Ambient	R$_{θJA}$	357	℃/W
Junction Temperature	T$_J$	150	℃
Storage Temperature	T$_{STG,,}$	-55~ +150	℃

Electrical characteristics

(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	
Dynamic Characteristics						
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

Output Characteristics

Transfer Characteristics

$R_{DS(ON)}$-I_D

$R_{DS(ON)}$-V_{GS}

I_S-V_{SD}

Threshold Voltage
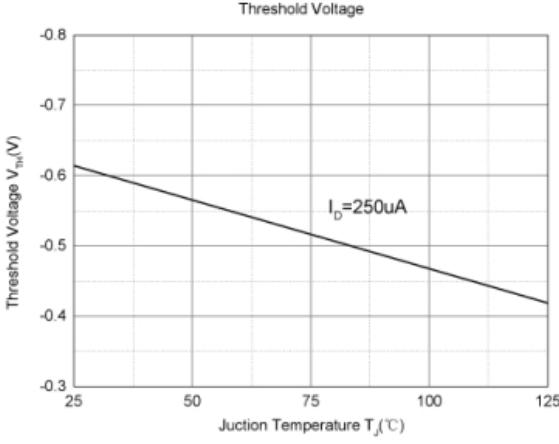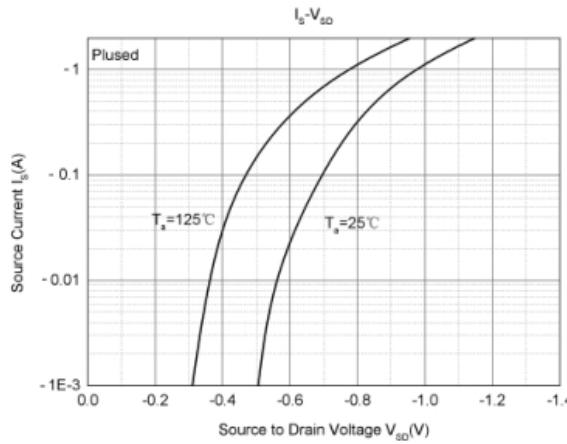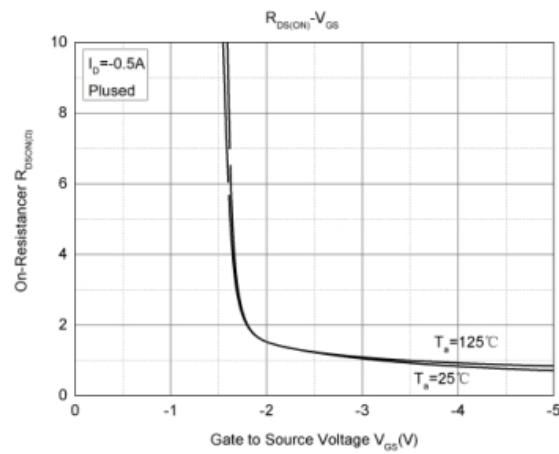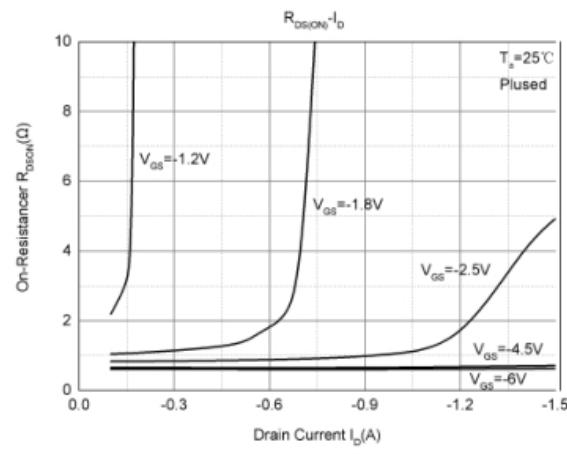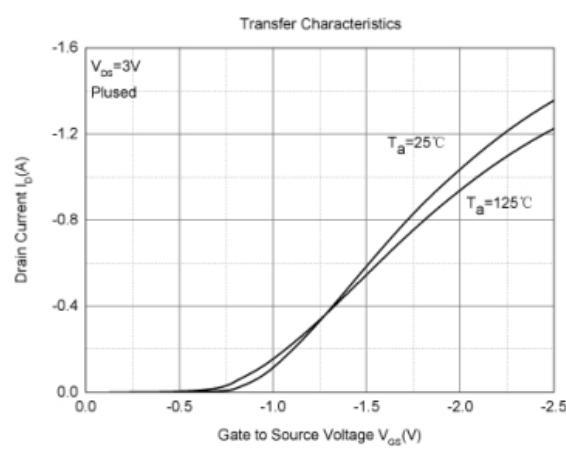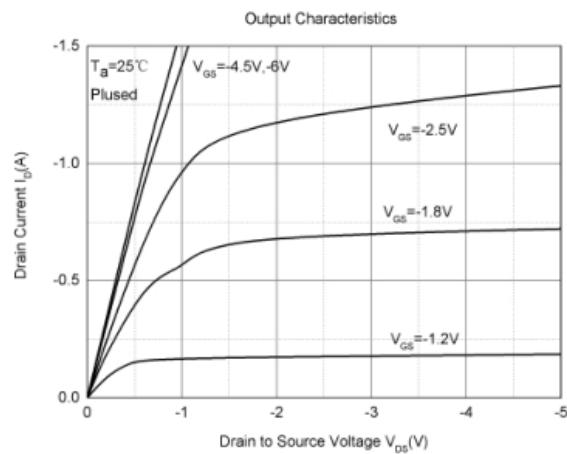
SOT-563 Package Information
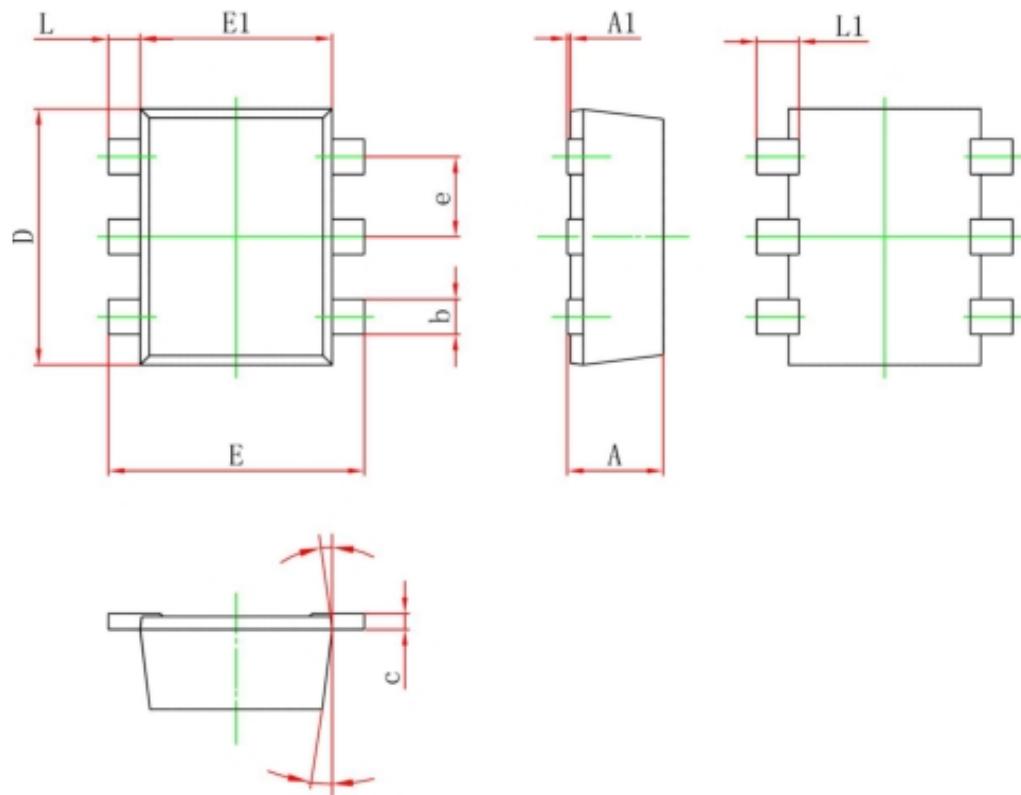
Symbol	Dimensions In Millimeters	
	Min	Max
A	0.525	0.600
A1	0.000	0.050
e	0.450	0.550
c	0.090	0.160
D	1.500	1.700
b	0.170	0.270
E1	1.100	1.300
E	1.500	1.700
L	0.100	0.300
L1	0.200	0.400
θ	7°Ref.	