

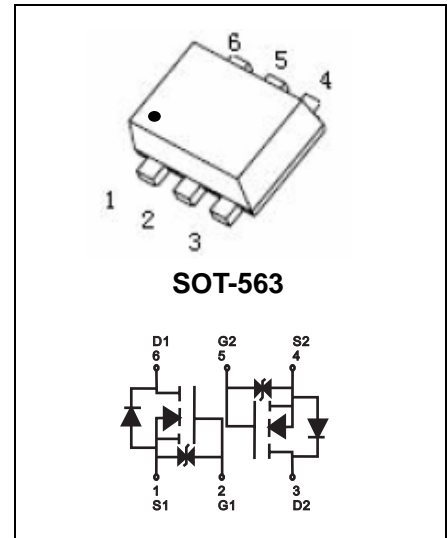
FEATURE

- Surface Mount Package
- N-Channel Switch with Low $R_{DS(on)}$
- Operated at Low Logic Level Gate Drive
- Equivalent to Two S3134K.

APPLICATION

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

MARKING: 34K



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

Parameter	Symbol	Value	Unit
Drain-source voltage	V_{DS}	20	V
Gate-source voltage	V_{GS}	± 12	V
Continuous drain current ($t \leq 10\text{s}$)	I_D	0.75	A
Power dissipation(note1)	P_D	0.15	W
Thermal resistance from junction to ambient	$R_{\theta JA}$	833	$^{\circ}\text{C}/\text{W}$
Junction temperature	T_J	150	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-55~ +150	$^{\circ}\text{C}$

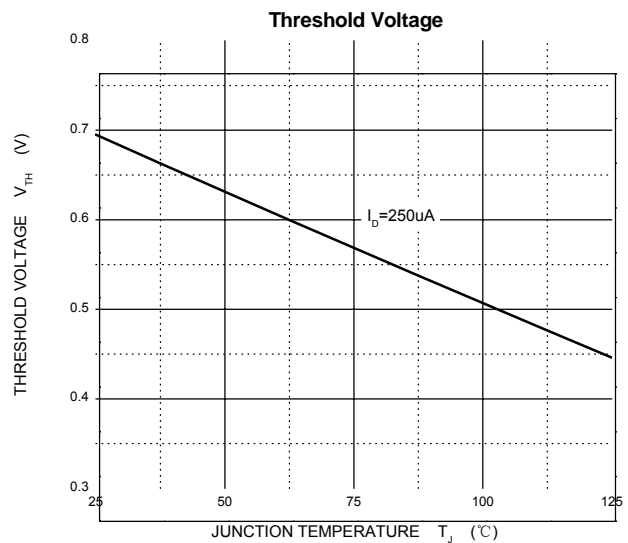
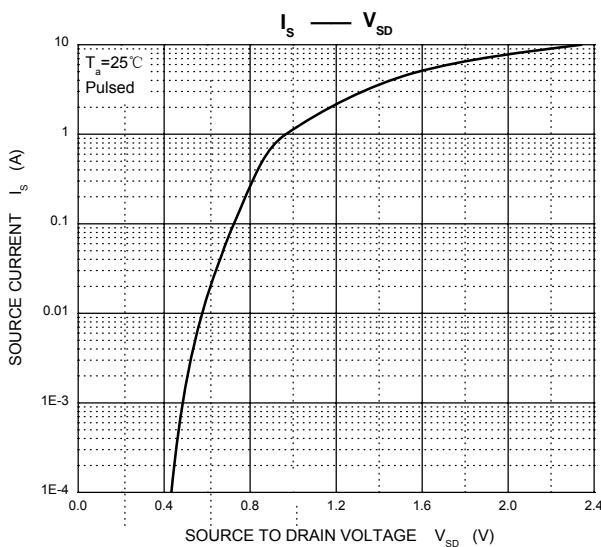
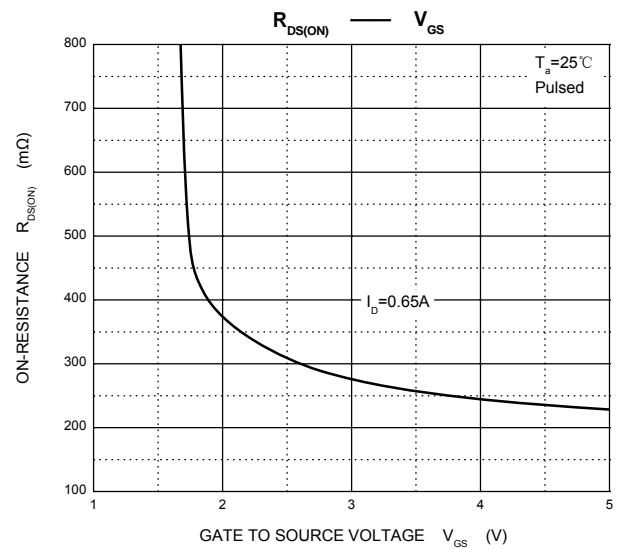
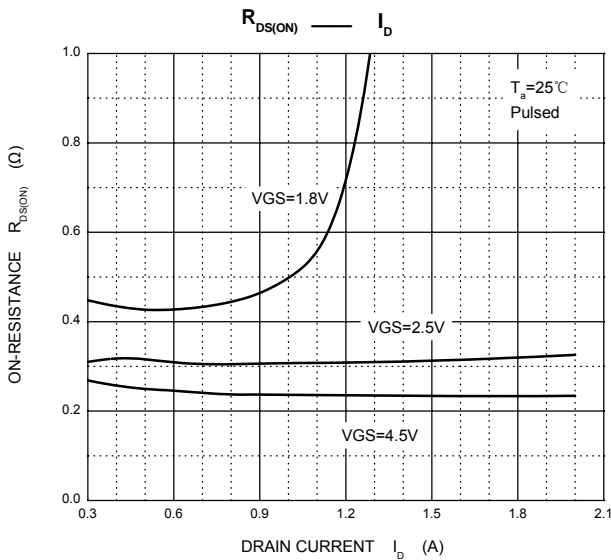
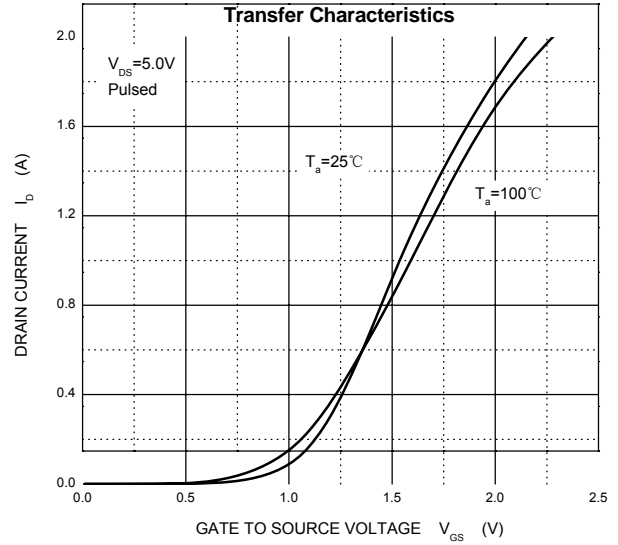
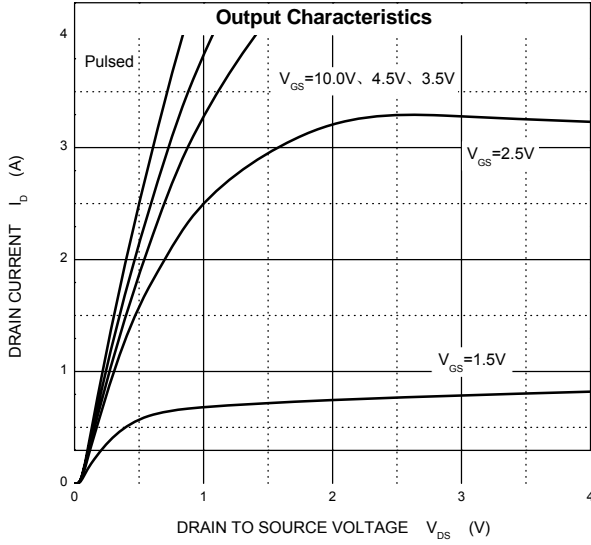
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
STATIC PARAMETERS						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 250μA	20			V
Zero gate voltage drain current	I _{DSS}	V _{DS} = 20V, V _{GS} = 0V			1	μA
Gate-body leakage current	I _{GSS}	V _{GS} = ±12V, V _{DS} = 0V			±50	μA
Gate threshold voltage (note 2)	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	0.35		1	V
Drain-source on-resistance (note 2)	R _{DS(on)}	V _{GS} = 4.5V, I _D = 0.65A			380	mΩ
		V _{GS} = 2.5V, I _D = 0.55A			450	mΩ
		V _{GS} = 1.8V, I _D = 0.45A			800	mΩ
Forward transconductance (note 2)	g _{FS}	V _{DS} = 10V, I _D = 0.8A		1.6		S
Diode forward voltage(note 2)	V _{SD}	I _S = 0.15A, V _{GS} = 0V			1.2	V
DYNAMIC PARAMETERS (note 3)						
Input Capacitance	C _{iss}	V _{DS} = 16V, V _{GS} = 0V, f = 1MHz		79	120	pF
Output Capacitance	C _{oss}			13	20	pF
Reverse Transfer Capacitance	C _{rss}			9	15	pF
SWITCHING PARAMETERS(note 3)						
Turn-on delay time	t _{d(on)}	V _{GS} = 4.5V, V _{DS} = 10V, I _D = 0.5A, R _{GEN} = 10Ω		6.7		ns
Turn-on rise time	t _r			4.8		ns
Turn-off delay time	t _{d(off)}			17.3		ns
Turn-off fall time	t _f			7.4		ns
Total Gate Charge	Q _g	V _{DS} = 10V, V _{GS} = 4.5V, I _D = 7A		20		nC
Gate-Source Charge	Q _{gs}			1		nC
Gate-Drain Charge	Q _{gd}			4		nC

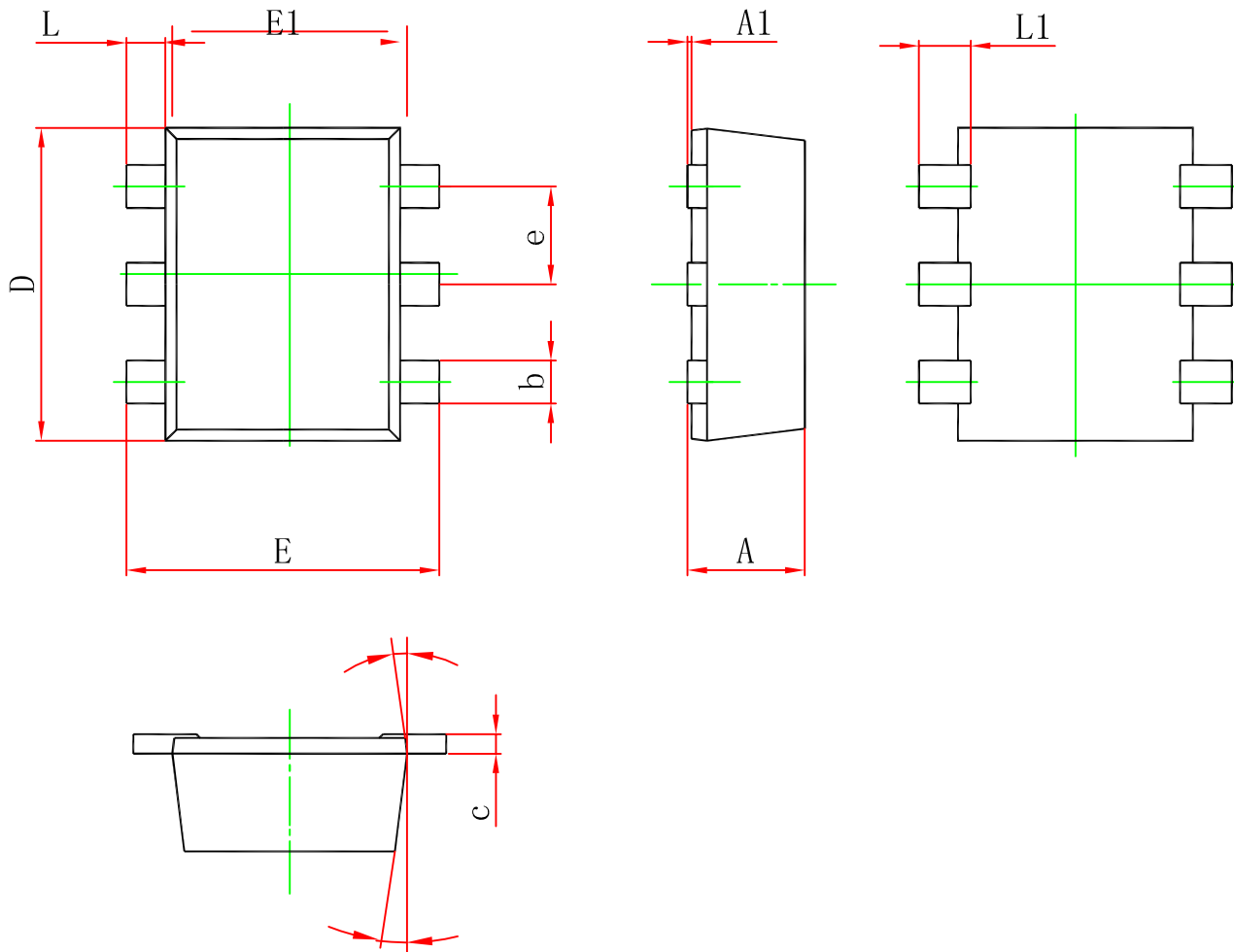
Notes :

1. Repetitive rating : Pulse width limited by junction temperature.
2. Pulse Test : Pulse width ≤ 300μs, duty cycle ≤ 0.5%.
3. Guaranteed by design, not subject to production testing.

ELECTRICAL CHARACTERISTIC CURVES



PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions in inches	
	Min.	Max.	Min.	Max.
A	0.525	0.600	0.021	0.024
A1	0.000	0.050	0.000	0.002
e	0.450	0.550	0.018	0.022
c	0.090	0.160	0.004	0.006
D	1.500	1.700	0.059	0.067
b	0.170	0.270	0.007	0.011
E1	1.100	1.300	0.043	0.051
E	1.500	1.700	0.059	0.067
L	0.100	0.300	0.004	0.012
L1	0.200	0.400	0.008	0.016
θ	7 °REF.		7 °REF.	