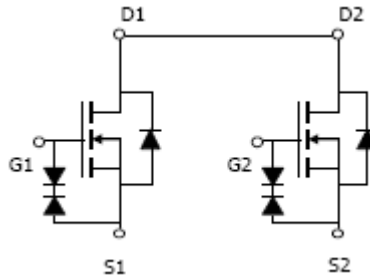
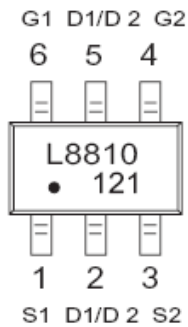
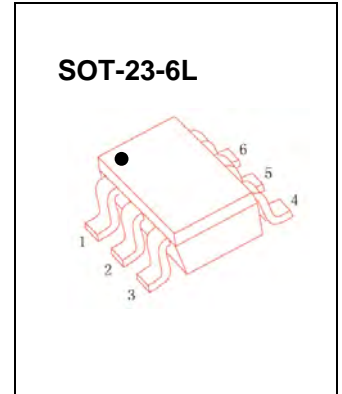


Dual N-Channel Enhancement Mode Field Effect Transistor

DESCRIPTION

The FTK8810L use advanced trench technology to provide excellent $R_{DS(ON)}$ and low gate charge. It is ESD protected. This device is suitable for use as a uni-directional or bi-directional load switch, facilitated by its common-drain configuration.



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 ($\leq 10\text{s}$)	I_D	7	A
Pulsed drain current*	I_{DM}	30	A
Power dissipation*	P_D	1.25	W
Thermal resistance from junction to ambient	$R_{\theta JA}$	100	$^{\circ}\text{C}/\text{W}$
Junction temperature	T_J	150	$^{\circ}\text{C}$
Storage temperature	T_{stg}	- 55~ +150	$^{\circ}\text{C}$

* Repetitive rating : Pulse width limited by junction temperature.



FTK8810L

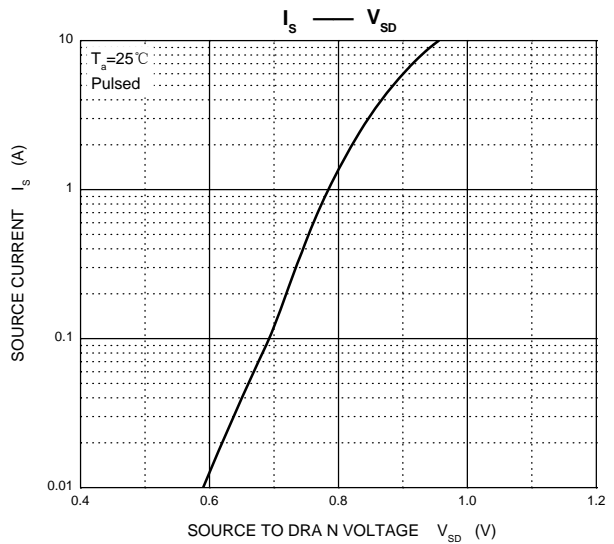
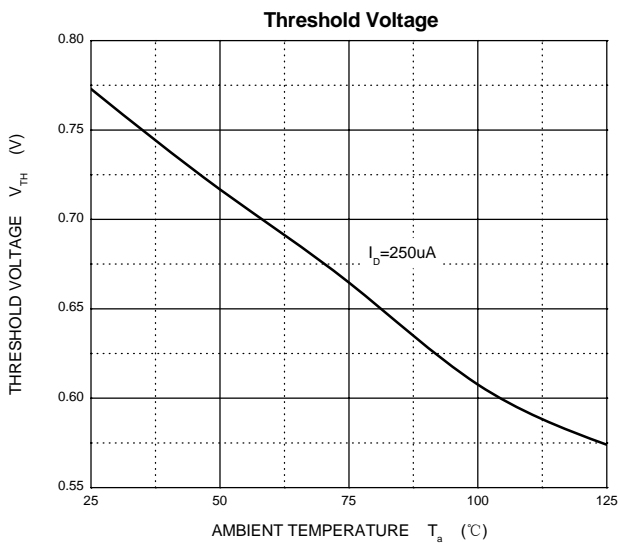
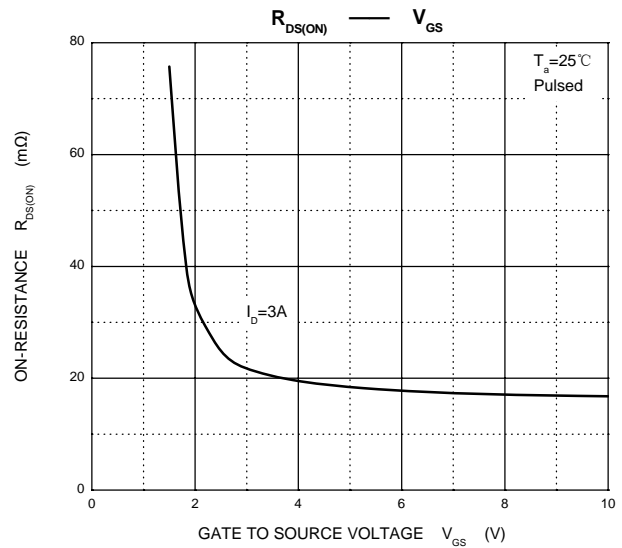
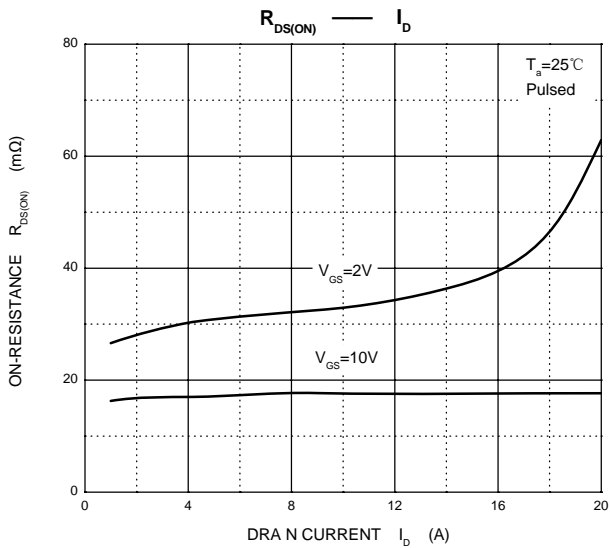
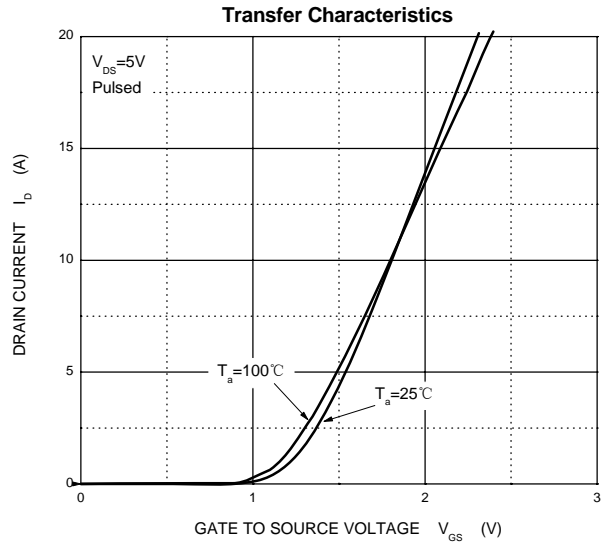
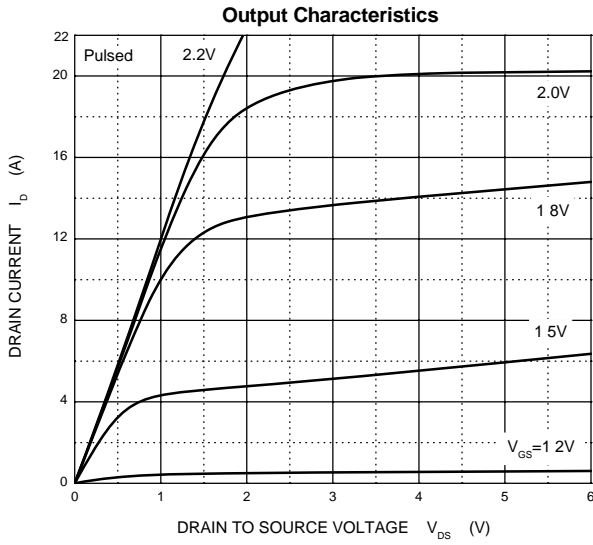
ELECTRICAL CHARACTERISTICS (T_a=25 °C unless otherwise noted)

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} = 16V, V _{GS} = 0V			1	μA
Gate - body leakage current	I _{GSS}	V _{GS} = ±4.5V, V _{DS} = 0V			±1	μA
		V _{GS} = ±8V, V _{DS} = 0V			±10	μA
Gate threshold voltage (note 1)	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	0.4		1	V
Drain - source on - resistance (note 1)	R _{DS(on)}	V _{GS} = 10V, I _D = 7A			20	mΩ
		V _{GS} = 2.5V, I _D = 5.5A			26	mΩ
		V _{GS} = 1.8V, I _D = 5A			35	mΩ
Forward transconductance (note 1)	g _{FS}	V _{DS} = 5V, I _D = 7A	9			S
Diode forward voltage (note 1)	V _{SD}	I _S = 1A, V _{GS} = 0V			1	V
SWITCHING PARAMETERS (note 2)						
Turn - on delay time	t _{d(on)}	V _{GS} = 5V, V _{DS} = 10V, R _L = 1.35Ω, R _{GEN} = 3Ω		6.5		ns
Turn - on rise time	t _r			12.5		ns
Turn - off delay time	t _{d(off)}			51.5		ns
Turn - off fall time	t _f			16		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

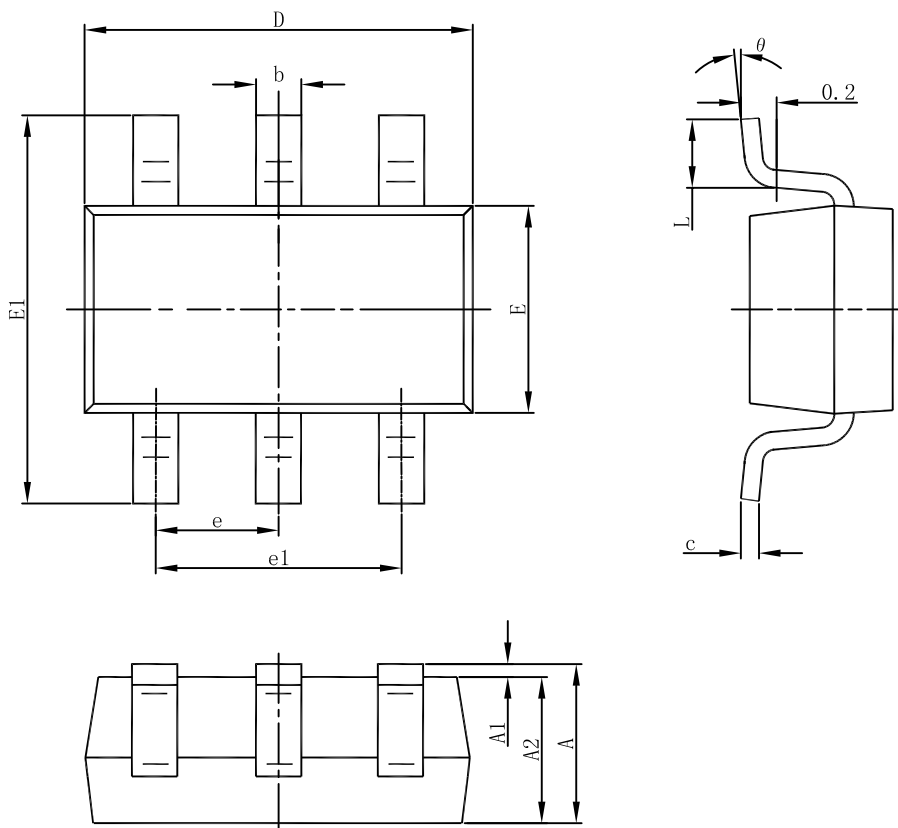
Notes :

1. Pulse Test : Pulse width ≤ 300μs, duty cycle ≤ 0.5%.
2. Guaranteed by design, not subject to production testing.

Typical Characteristics



SOT-23-6L PACKAGE INFORMATION



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

SOT-23-6L