

Description

The CJ3134KW is N-Channel enhancement MOS Field Effect Transistor. Uses advanced trench technology and design to provide excellent R_{DS(on)}, with low gate charge. Device is suitable for use in DC-DC conversion, power switch and charging circuit. Standard Product CJ3134KW is Pb-free.

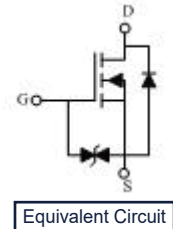
General Features

- High-Side Switching
- Low On-Resistance
- Low Threshold
- Fast Switching Speed



Applications

- Drivers: Relays, Solenoids, Lamps, Hammers, Displays, Memories
- Battery Operated Systems
- Power Supply Converter Circuits
- Load/Power Switching Cell Phones, Pagers



Ordering information

Product ID	Pack	Naming rule	Marking	Qty(PCS)
CJ3134KW	SOT-323	CJ3134KW ↓ 产品名称 product name	34K	3000

Absolute Maximum Ratings (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Rating	Units
V _{DSS}	Drain-Source voltage	20	V
V _{GS}	Gate-Source Voltage	±12	V
I _D	Drain Current-Continuous	0.75	A
I _{DM}	Drain Current -Pulsed(note1)	3	A
P _D	Power Dissipation (note 2)	200	mW
R _{θJA}	Thermal Resistance from Junction to Ambient	625	°C/W
T _J , T _{stg}	Junction temperature	-55~+150	°C

Electrical Characteristics (T_A=25℃, unless otherwise noted)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
On/Off States						
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V , I _D =250μA	20	---	---	V
I _{DSS}	Drain-Source Leakage Current	V _{DS} =20V,V _{GS} =0V	---	---	1	μA
I _{GSS}	Gate-Source Leakage Current	V _{GS} =±10V , V _{DS} =0V	---	---	±20	μA
V _{GS(th)}	Gate-Threshold Voltage(note 3)	V _{GS} =V _{DS} , I _D =250μA	0.35	---	1.1	V
R _{DS(ON)}	Drain-source on-resistance (note 3)	V _{GS} =4.5V, I _D =0.65A	---	260	380	mΩ
		V _{GS} =2.5V,I _D =0.55A	---	320	450	
		V _{GS} =1.8V , I _D =0.45A	---	390	800	
g _{fs}	Forward Transconductance	V _{DS} =10V , I _D =0.8A	1	---	---	S
Dynamic Characteristics(note 4)						
C _{iss}	Input Capacitance	V _{DS} =16V , V _{GS} =0V , f=1MHz	---	---	120	pF
C _{oss}	Output Capacitance		---	---	20	
C _{rss}	Reverse Transfer Capacitance		---	---	15	
Switching Times (note 4)						
T _{d(on)}	Turn-On Delay Time	V _{DD} =10V,I _D =500mA, V _{GS} =4.5V,R _G =10Ω	---	6.7	---	ns
T _r	Rise Time		---	4.8	---	
T _{d(off)}	Turn-Off Delay Time		---	17.3	---	
T _f	Fall Time		---	7.4	---	
Drain-Source Diode Characteristics						
V _{SD}	Diode Forward Voltage (note 3)	I _S =0.15A,V _{GS} =0V	---	---	1.2	V

Notes:

- 1.Repetitive Rating: Pulse width limited by maximum junction temperature.
- 2.This test is performed with no heat sink at T_a=25℃.
3. Pulse Test : Pulse Width≤300μs, Duty Cycle≤0.5%.
- 4.These parameters have no way to verify.



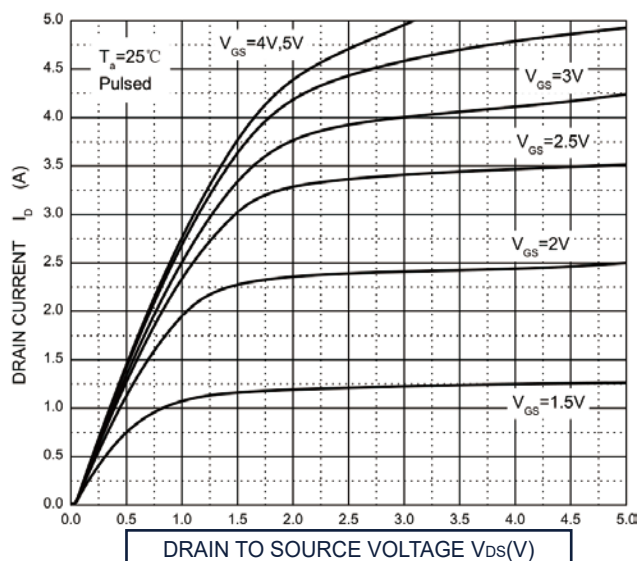
TWTLSEMI

TL-CJ3134KW

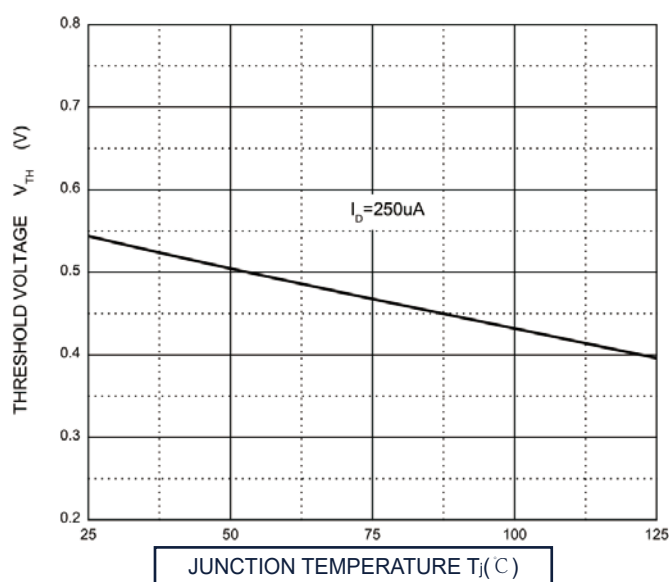
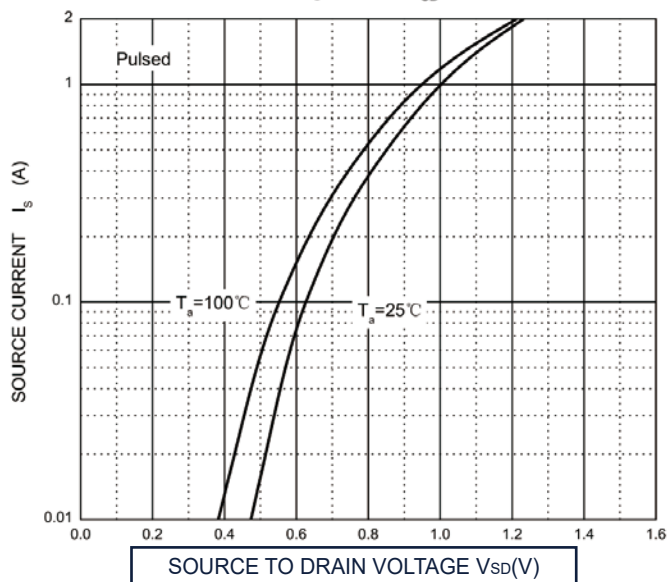
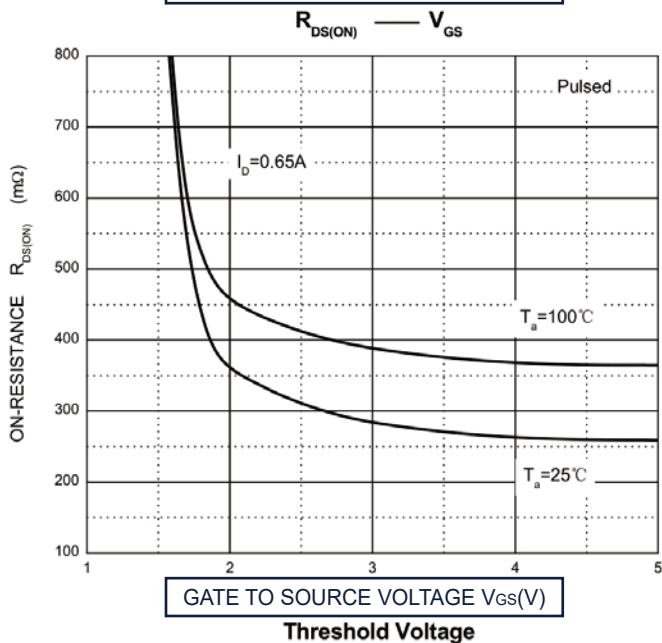
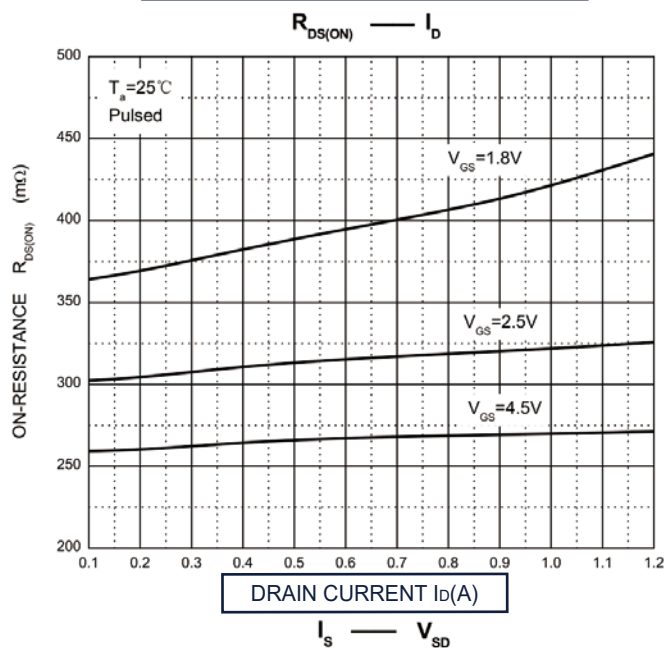
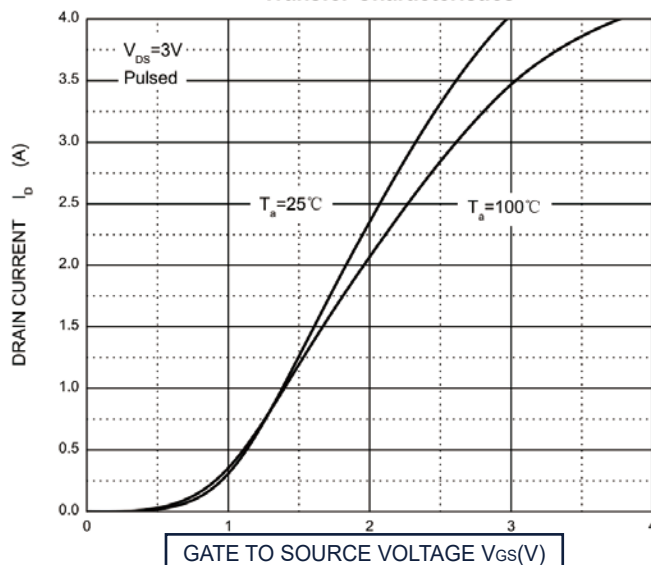
SOT-323 20V N-Channel Enhancement Mode MOSFET

Typical Characteristics

Output Characteristics

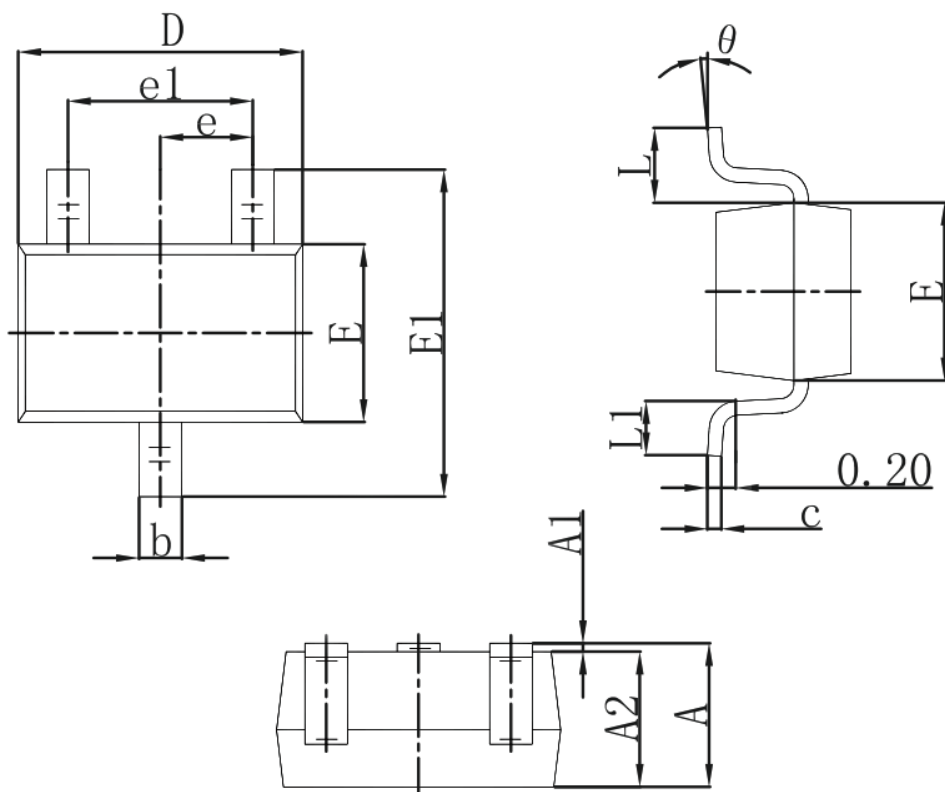


Transfer Characteristics





SOT-323 Package Outline Dimensions



Symbol	Dimensions in Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	1.350	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°