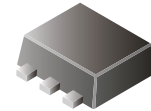


CJX3134K-G

N-Channel

RoHS Device



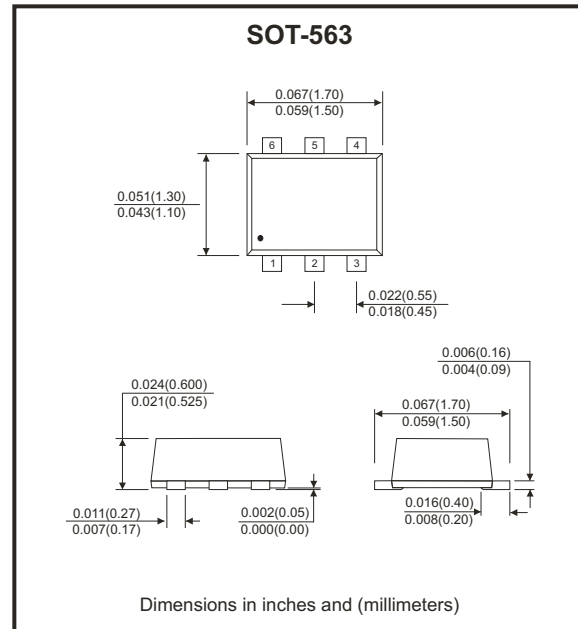
V(BR) _{DSS}	R _{ds(on)} MAX	I _D
20V	380mΩ@4.5V	0.75A
	450mΩ@2.5V	
	800mΩ@1.8V	

Features

- Surface mount package
- N-Channel switch with low R_{ds(on)}
- Operated at low logic level gate drive
- Equivalent to two CJ3134K

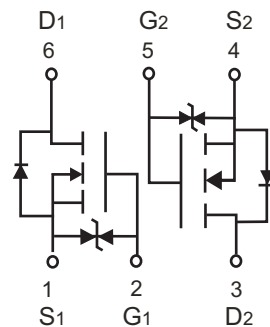
Mechanical data

- Case: SOT-563, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.



Circuit Diagram

- G : Gate
- S : Source
- D : Drain



Maximum Rating (at T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source voltage	V _{DS}	20	V
Typical Gate-Source voltage	V _{GS}	±12	V
Continuous drain current (t≤10s)	I _D	0.75	A
Power dissipation (note1)	P _D	150	mW
Thermal resistance from junction to ambient	R _{θJA}	833	°C/W
Junction temperature	T _J	150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Notes: 1. Repetitive rating : Pulse width limited by junction temperature.

Electrical Characteristics (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS}=0V, I_D=250\mu A$	20			V
Zero gate voltage drain current	I_{DSS}	$V_{DS}=20V, V_{GS}=0V$			1	μA
Gate-body leakage current	I_{GSS}	$V_{GS}=\pm 10V, V_{DS}=0V$			± 20	μA
Gate threshold voltage (note 2)	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	0.35	0.54	1.1	V
Drain-source on-state resistance (note 2)	$R_{DS(on)}$	$V_{GS}=4.5V, I_D=0.65A$		270	380	m Ω
		$V_{GS}=2.5V, I_D=0.55A$		320	450	
		$V_{GS}=1.8V, I_D=0.45A$		390	800	
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 Characteristics (note 3)						
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 (note 3)						
Turn-on delay time	$t_{d(on)}$	$V_{GS}=4.5V, V_{DS}=10V$ $I_D=0.5A, R_{GEN}=10\Omega$		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		
Total gate charge	Q_g	$V_{DS}=10V, V_{GS}=4.5V, I_D=7A,$		20		nC
Gate-Source charge	Q_{gs}			1		
Gate-Drain charge	Q_{gd}			4		

Notes: 2. Pulse test: Pulse width $\leq 300\mu s$, duty cycle $\leq 0.5\%$

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

RATING AND CHARACTERISTIC CURVES (CJX3134K-G)

Fig.1 - Output Characteristics

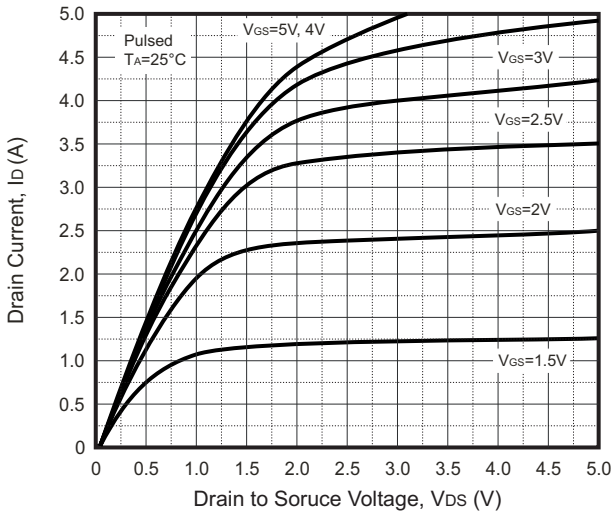


Fig.2 - Transfer Characteristics

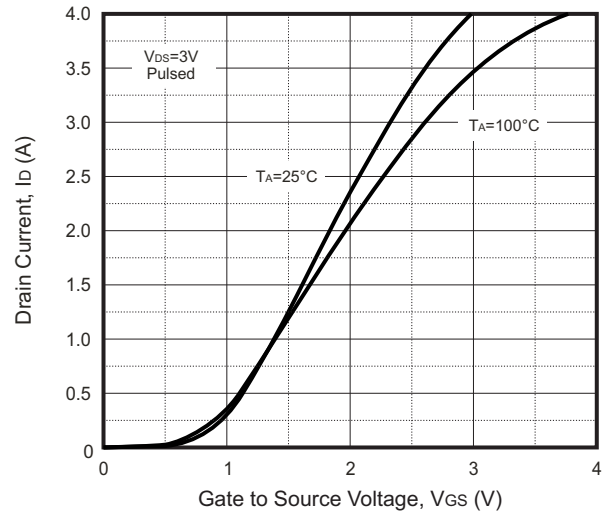


Fig.3 - $R_{DS(ON)}$ — I_D

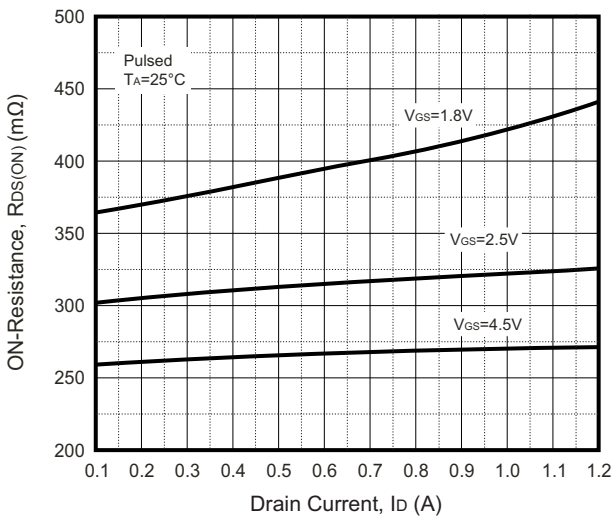


Fig.4 - $R_{DS(ON)}$ — V_{GS}

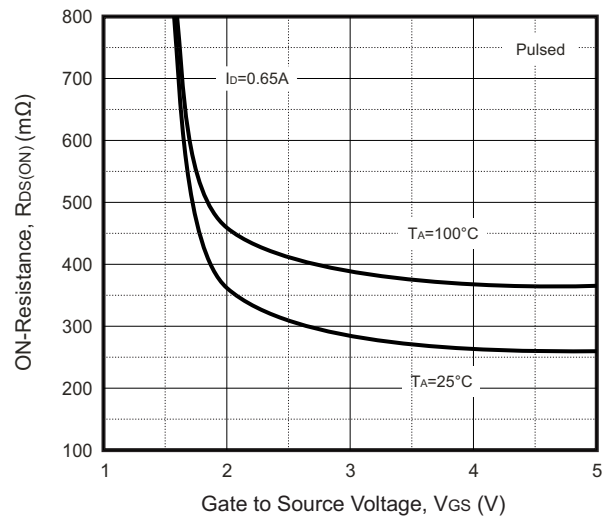


Fig.5 - I_S — V_{SD}

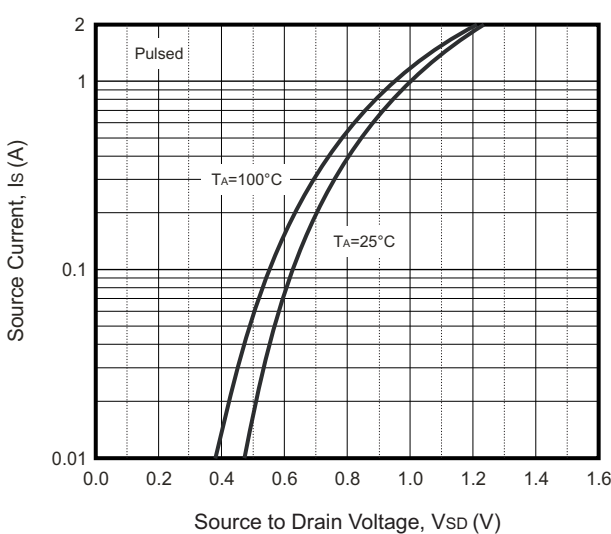
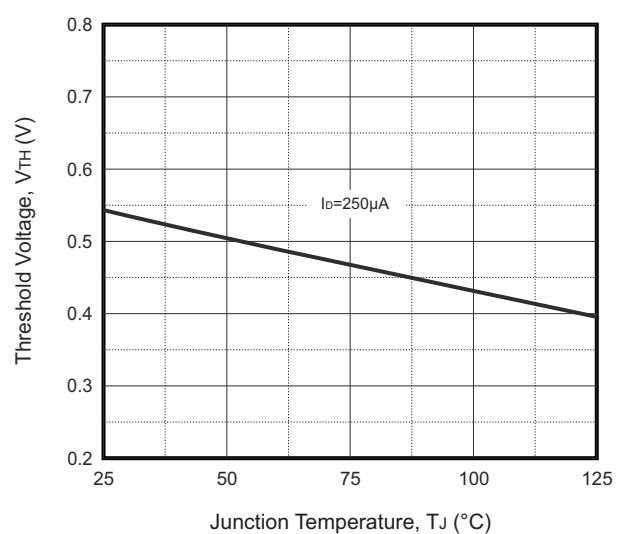
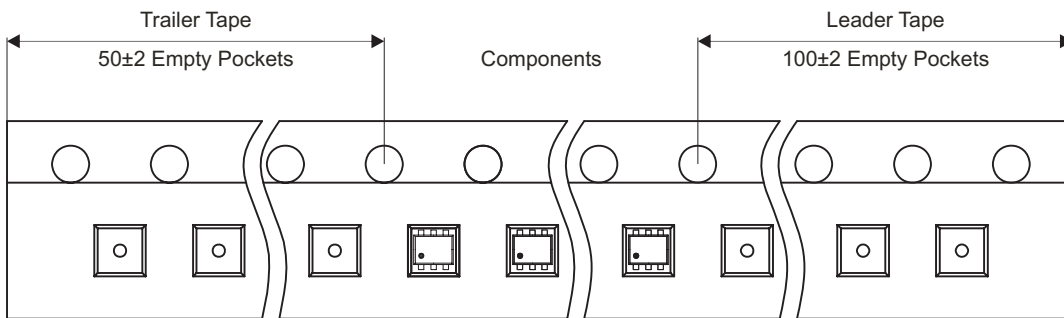
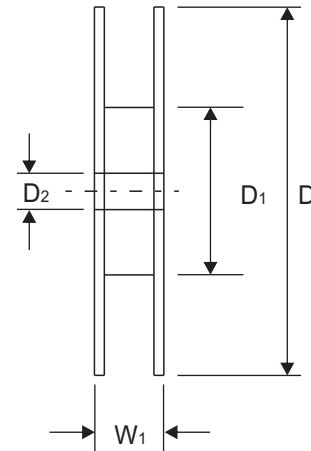
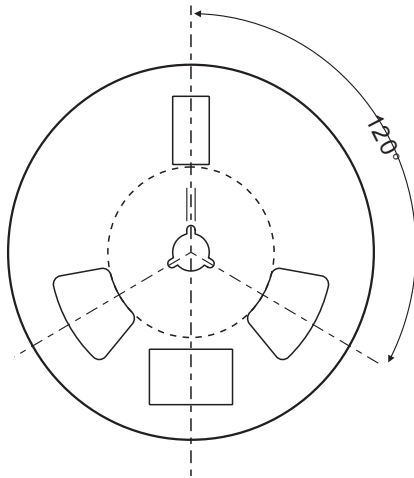
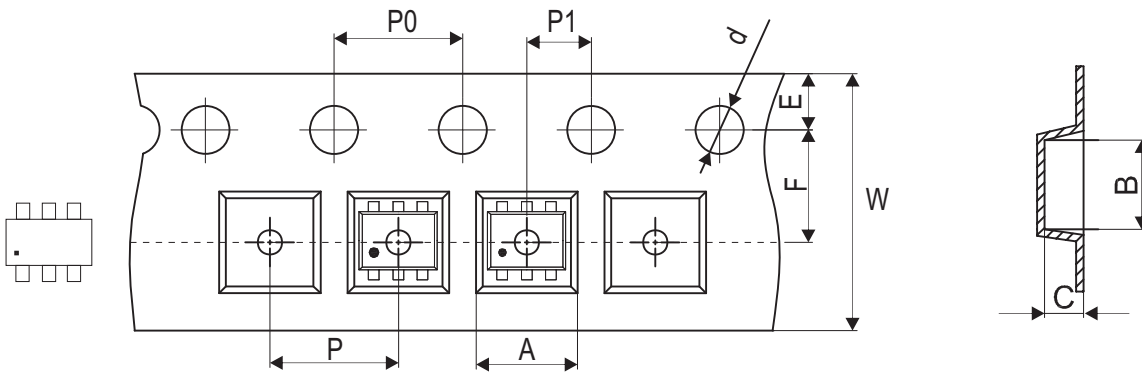


Fig.6 - Threshold Voltage



Reel Taping Specification



SOT-563	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.78 ± 0.10	1.78 ± 0.10	0.69 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.070 ± 0.004	0.070 ± 0.004	0.027 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-563	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.004	0.567 ± 0.039

Company reserves the right to improve product design, functions and reliability without notice.

Marking Code

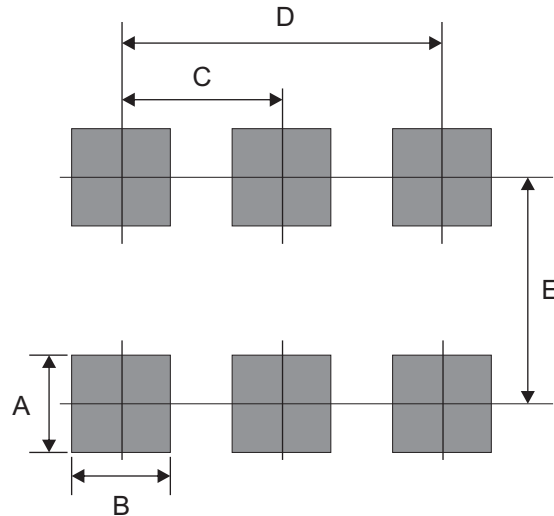
Part Number	Marking Code
CJX3134K-G	34K



Solid dot “●” = Pin 1 indicate.

Suggested PAD Layout

SIZE	SOT-563	
	(mm)	(inch)
A	0.30	0.012
B	0.30	0.012
C	0.50	0.020
D	1.00	0.039
E	1.40	0.055



Note:

- 1.General tolerance: $\pm 0.05\text{mm}$.
- 2.The pad layout is for reference purposes only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-563	3,000	7