

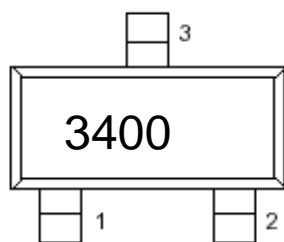
Kingtronics®**CDL3400A-UE****MOSFET**

Marking: 3400

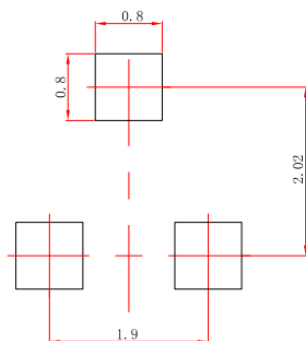
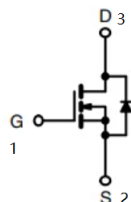
Suggested Layout

SOT-23

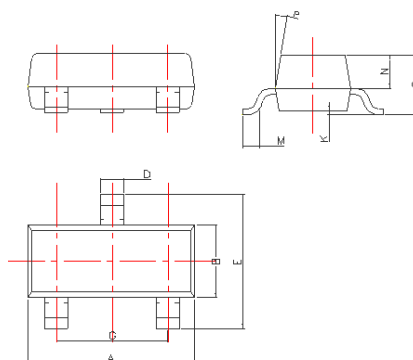
Dimension



Top view



(±0.05mm)



DIM	Millimeters
A	2.85~3.04
B	1.30±0.10
C	1.00±0.10
D	0.45±0.05
E	2.25~2.55
G	1.90±0.1
K	0.00-0.10
M	0.20 min
N	0.60±0.10
P	7±2°

MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Drain-Source Voltage	VDSS	30	Vdc
Gate-Source Voltage	VGSS	±12	Vdc
Drain Current—Continuous	ID	5.8	Adc
Peak Drain Current	IDM ¹	20	Adc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation TA=25°C	PD	450	mW
Thermal Resistance from Junction to Ambient	RθJA	278	°C/W
Junction and Storage Temperature	TJ, Tstg	150 , -55 to +150	°C

1. Repetitive Rating : Pulse width limited by maximum junction temperature

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

Characteristic	Symbol	Test Condition	Min	Type	Max	Unit
Drain-Source Breakdown Voltage	V(BR)DSS	VGS=0V, ID=250μA	30	-	-	V
Zero Gate Voltage Drain Current	IDSS	VDS=24V, VGS=0V	-	-	1.0	μA
Gate-Body Leakage Current, Forward	IGSS	VGS=±12V	-	-	±100	nA
Gate Threshold Voltage	VGS(th)	VDS=VGS, ID=250μA	0.70	0.95	1.2	V
Static Drain-Source On-State Resistance	RDS(on)	VGS=10V, ID=5.8A	-	22	35	mΩ
		VGS=4.5V, ID=5.0A	-	25	40	
		VGS=2.5V, ID=4.0A	-	37	52	
Forward Transconductance	gfs	VDS=5V, ID=5.0A	8	-	-	S
Diode Forward On-Voltage	VSD	VGS=0V, IS=5.0A	-	-	1.2	V

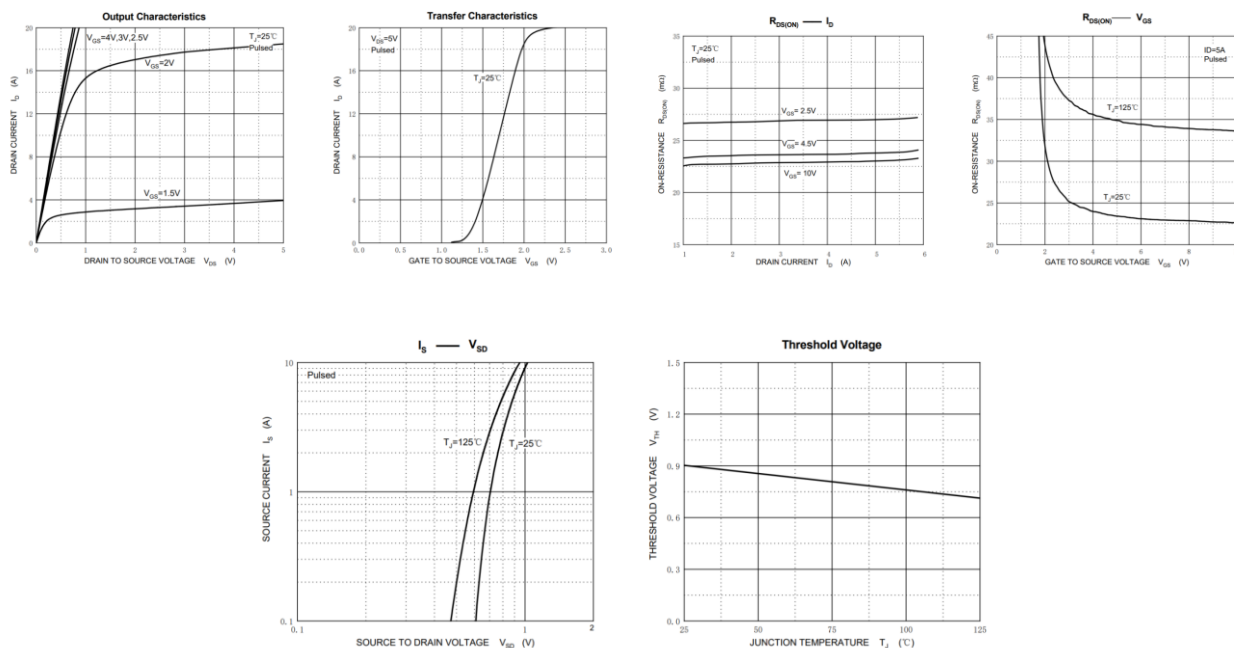
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CDL3400A-UE

Turn-On Delay Time	$t_{d(on)}$	VDD = 10V, VDS=15V, ID=5A, RL = 2.7Ω, RGEN = 3Ω	-	4.4	-	ns
Turn-On Time	tr		-	28.2	-	
Turn-Off Delay Time	$t_{d(off)}$		-	16.2	-	
Turn-On Fall Time	t_f		-	26	-	
Input Capacitance	Ciss	VDS = 15V, VGS = 0V, f = 1.0 MHz	-	630	-	pF
Output Capacitance	Coss		-	55	-	
Reverse Transfer Capacitance	Crss		-	71	-	
Total Gate Charge	Q_G	VDS = 10V, ID =5A, VGS=6V	-	17.25	-	nC
Gate.to source charge	Q_{GS}		-	2.1	-	
Gate.to drain charge	Q_{GD}		-	2	-	

Typical Performance Characteristics



Note: Specifications are subject to change without notice.

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