



# UD8971

Advance

LINEAR INTEGRATED CIRCUIT

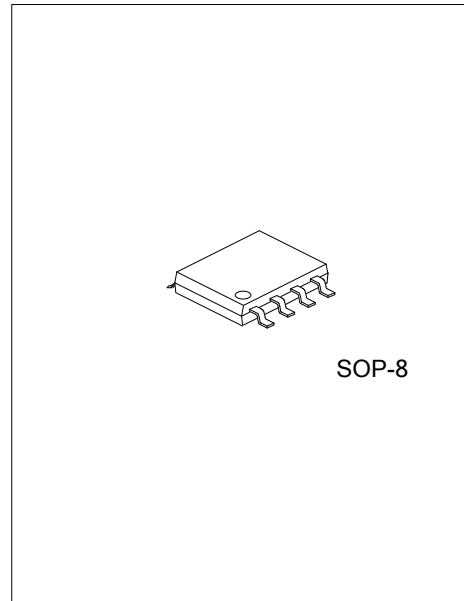
## LED DISPLAY LINE DRIVE CHIP

### DESCRIPTION

UTC **UD8971** is a ghosting effect elimination and control circuit designed for LED display, with integrated dual channel power PMOS.

### FEATURES

- \* Integrated ghosting effect elimination
- \* Integration of two power PMOS transistor output PIN
- \* Integrated anti-LED bead reverse breakdown voltage regulator circuit



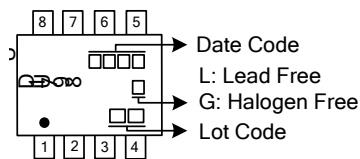
### ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
UD8971L-S08-R	UD8971G-S08-R	SOP-8	Tape Reel

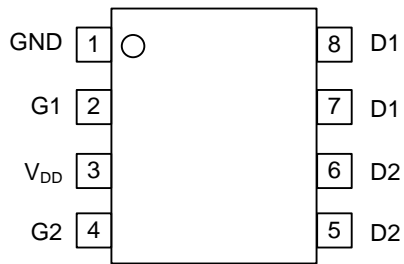
Note: xx: Output Voltage, refer to Marking Information.

<p>UD8971G-S08-R</p>	<p>(1) R: Tape Reel</p> <p>(2) S08: SOP-8</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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### MARKING



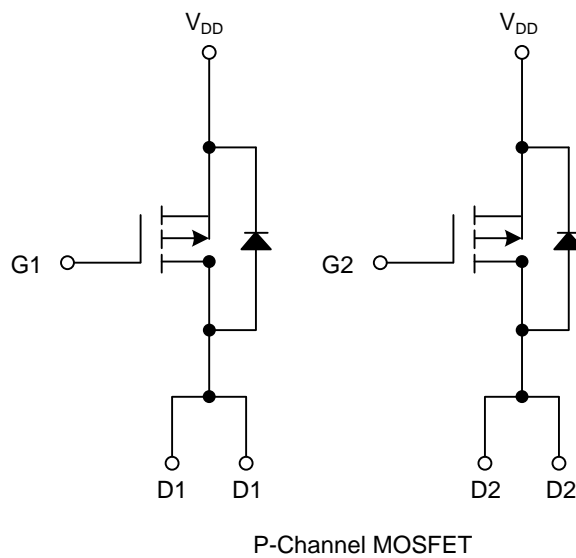
### ■ PIN CONFIGURATION



### ■ PIN DESCRIPTION

PIN NO.	PIN NAME	DESCRIPTION
1	GND	Ground
2	G1	D1 control input
3	V <sub>DD</sub>	Supply voltage
4	G2	D2 control input
5, 6	D2	D2 channel output
7, 8	D1	D1 channel output

### ■ LOGIC DIAGRAM



■ ABSOLUTE MAXIMUM RATING ( $T_A = 25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	$V_{DD}$	-0.5 ~ +5.5	V
Gate Voltage	$V_G$	-0.5 ~ $V_{DD}+0.5$	V
Power Dissipation	$P_D$	< 675	mW
Operating Temperature Range	$T_{OPR}$	-40 ~ +80	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-50 ~ +150	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ DC ELECTRICAL CHARACTERISTICS ( $T_A = -40 \sim +80^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage	$V_{DD}$		3.0	5.0	5.5	V
High Level Input Voltage	$V_{IH}$	$V_{DD}=5.0\text{V}$	3.8			V
Low Level Input Voltage	$V_{IL}$	$V_{DD}=5.0\text{V}$			1.0	V
Supply Current	$I_{DD}$	$V_{DD}=5.0\text{V}$		1.5		mA
Output Port Drive Current	$I_o$	$V_{DD}=5.0\text{V}$			3	A
PMOSFET On Resistance	$R_{DS}$	$V_{DD}=5.0\text{V}$		100		m $\Omega$

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