

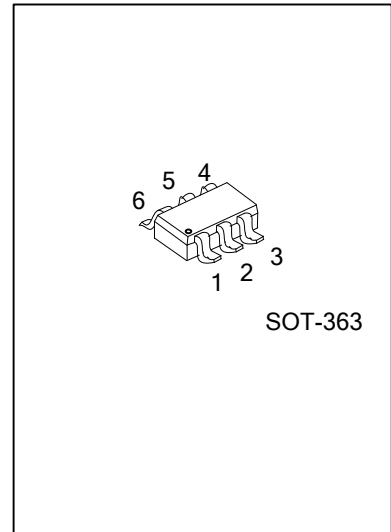


**UP672**

Preliminary

*Power MOSFET*

**N-CHANNEL MOSFET ARRAY FOR SWITCHING**



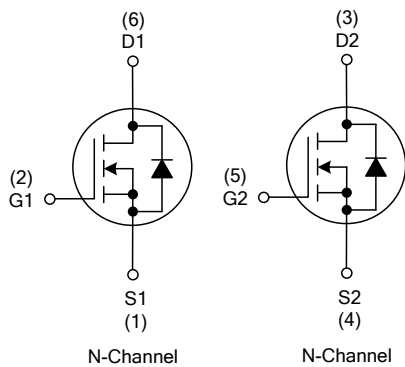
■ DESCRIPTION

The UTC **UP672** includes two MOSFET devices in a SOT-363 package. It achieves high-density mounting and saves mounting costs.

■ FEATURES

\* Automatic mounting supported

■ SYMBOL



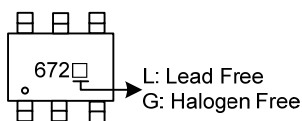
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment						Packing
Lead Free	Halogen Free		1	2	3	4	5	6	
UP672L-AL6-R	UP672G-AL6-R	SOT-363	S1	G1	D2	S2	G2	D1	Tape Reel

Note: Pin Assignment: G: Gate D: Drain S: Source

<p>UP672L - AL6 - R</p> <p>(1) Packing Type (2) Package Type (3) Lead Free</p>	<p>(1) R: Tape Reel (2) AL6: SOT-363 (3) L: Lead Free, G: Halogen Free</p>
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■ MARKING



■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ )

PARAMETER		SYMBOL	RATINGS	UNIT
Drain-Source Voltage		$V_{DSS}$	50	V
Gate-Source Voltage		$V_{GSS}$	$\pm 7.0$	V
Drain Current	Continuous	$I_D$	100	mA
	Pulsed (Note 1)	$I_{DM}$	200	mA
Total Power Dissipation		$P_D$	200	mW
Channel Temperature		$T_{CH}$	150	$^\circ\text{C}$
Storage Temperature Range		$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

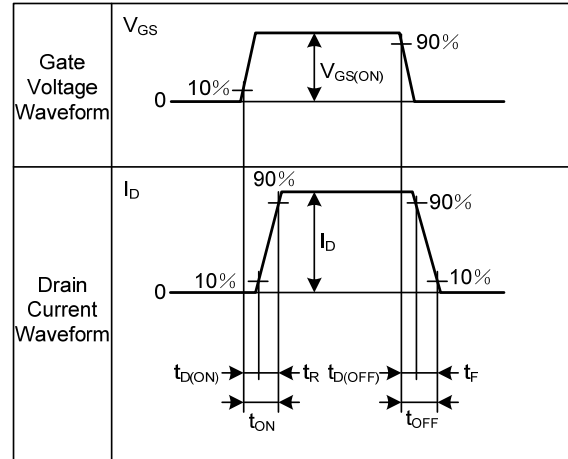
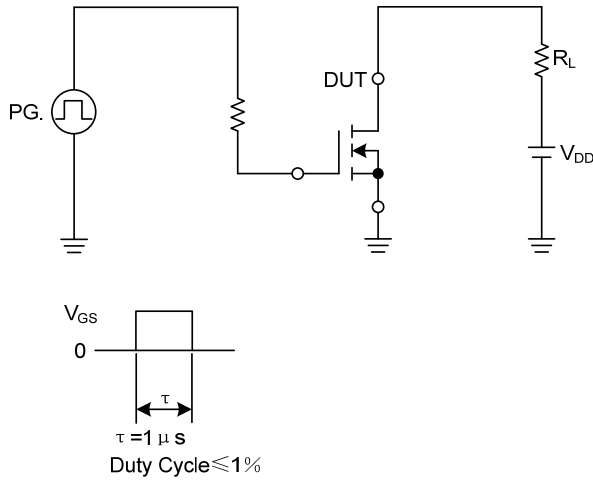
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

1.  $PW \leq 10\text{ms}$ , Duty Cycle  $\leq 50\%$

■ ELECTRICAL CHARACTERISTICS ( $T_C=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
<b>OFF CHARACTERISTICS</b>							
Drain-Source Breakdown Voltage		$BV_{DSS}$	$I_D=250\mu\text{A}$ , $V_{GS}=0\text{V}$	50			V
Drain-Source Leakage Current		$I_{DSS}$	$V_{DS}=50\text{V}$ , $V_{GS}=0\text{V}$			10	$\mu\text{A}$
Gate-Source Leakage Current	Forward	$I_{GSS}$	$V_{DS}=0\text{V}$ , $V_{GS}=7.0\text{V}$			5.0	$\mu\text{A}$
	Reverse		$V_{DS}=0\text{V}$ , $V_{GS}=-7.0\text{V}$			-5.0	$\mu\text{A}$
<b>ON CHARACTERISTICS</b>							
Gate Threshold Voltage		$V_{GS(OFF)}$	$V_{DS}=3.0\text{V}$ , $I_D=1.0\mu\text{A}$	0.7	1.0	1.5	V
Drain-Source On-State Resistance		$R_{DS(ON)1}$	$V_{GS}=2.5\text{V}$ , $I_D=10\text{mA}$		20	40	$\Omega$
		$R_{DS(ON)2}$	$V_{GS}=4.0\text{V}$ , $I_D=10\text{mA}$		15	20	$\Omega$
Forward Transconductance		$ y_{FS} $	$V_{DS}=3.0\text{V}$ , $I_D=10\text{mA}$	20			mS
<b>DYNAMIC PARAMETERS</b>							
Input Capacitance		$C_{ISS}$	$V_{DS}=3.0\text{V}$ , $V_{GS}=0\text{V}$ , $f=1.0\text{MHz}$		6		pF
Output Capacitance		$C_{OSS}$			8		pF
Reverse Transfer Capacitance		$C_{RSS}$			1.2		pF
<b>SWITCHING PARAMETERS</b>							
Turn-ON Delay Time		$t_{D(ON)}$	$V_{DD}=3\text{V}$ , $I_D=20\text{mA}$ , $V_{GS(ON)}=3\text{V}$ , $R_G=10\Omega$ , $R_L=120\Omega$		9		ns
Turn-ON Rise Time		$t_R$			50		ns
Turn-OFF Delay Time		$t_{D(OFF)}$			20		ns
Turn-OFF Fall Time		$t_F$			40		ns

■ SWITCHING TIME MEASUREMENT CIRCUIT AND CONDITIONS



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