



UP672

Preliminary

Power MOSFET

N-CHANNEL MOSFET ARRAY FOR SWITCHING

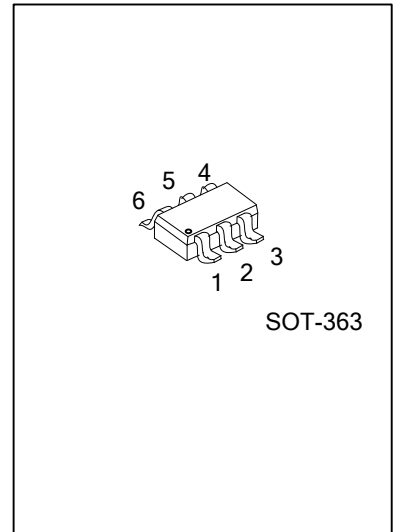
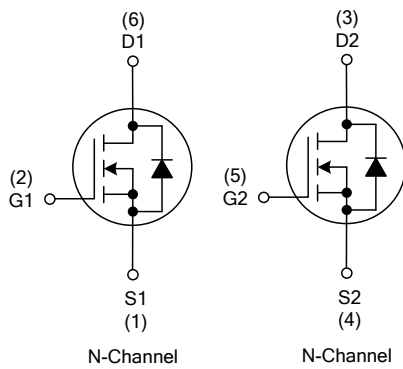
DESCRIPTION

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



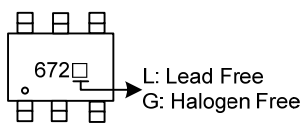
ORDERING INFORMATION

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

UP672L - AL6 - R	(1) Packing Type	(1) R: Tape Reel
	(2) Package Type	(2) AL6: SOT-363
	(3) Lead Free	(3) L: Lead Free, G: Halogen Free

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}	± 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.

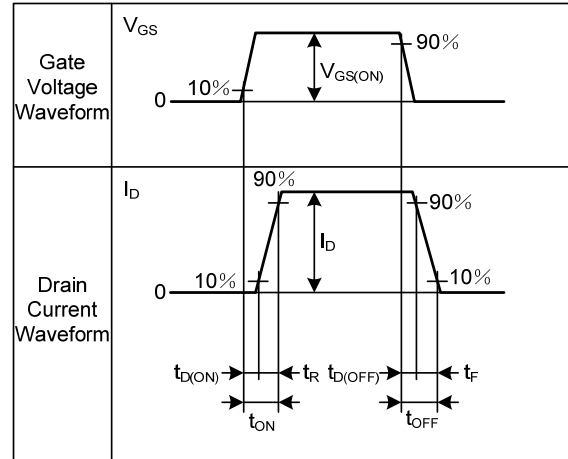
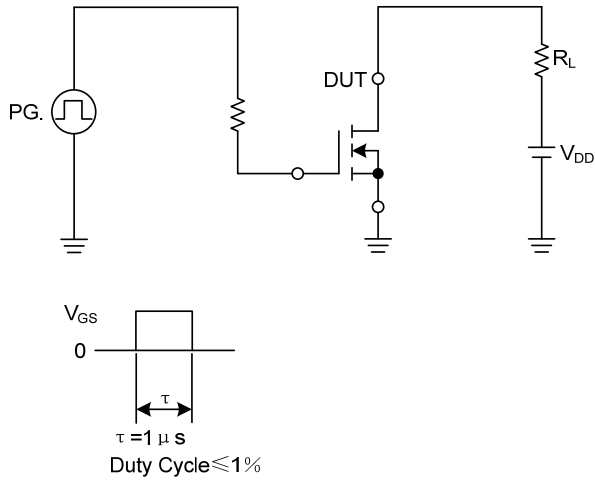
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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
OFF CHARACTERISTICS							
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	μA
Gate-Source Leakage Current	Forward	I_{GSS}	$V_{DS}=0\text{V}$, $V_{GS}=7.0\text{V}$			5.0	μA
	Reverse		$V_{DS}=0\text{V}$, $V_{GS}=-7.0\text{V}$			-5.0	μA
ON CHARACTERISTICS							
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	Ω
		$R_{DS(ON)2}$	$V_{GS}=4.0\text{V}$, $I_D=10\text{mA}$		15	20	Ω
Forward Transconductance		$ y_{FS} $	$V_{DS}=3.0\text{V}$, $I_D=10\text{mA}$	20			mS
DYNAMIC PARAMETERS							
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
SWITCHING PARAMETERS							
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



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.