



## UP672

Power MOSFET

### N-CHANNEL MOSFET ARRAY FOR SWITCHING

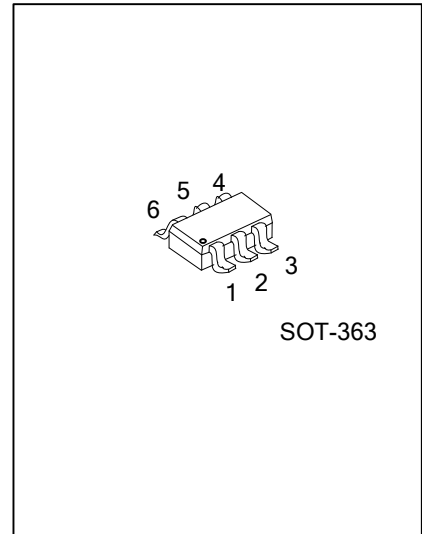
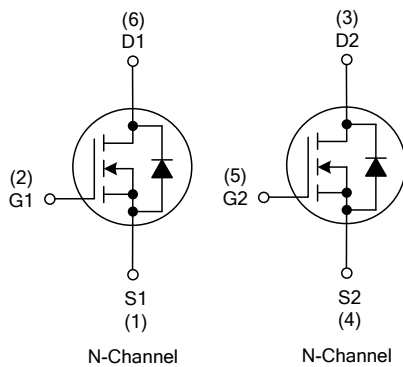
#### DESCRIPTION

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



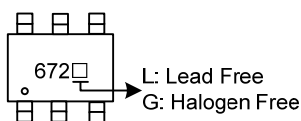
#### ORDERING INFORMATION

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<sub>A</sub>=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Drain-Source Voltage		V <sub>DSS</sub>	50	V
Gate-Source Voltage		V <sub>GSS</sub>	±7.0	V
Drain Current	Continuous	I <sub>D</sub>	100	mA
	Pulsed (Note 2)	I <sub>DM</sub>	200	mA
Total Power Dissipation		P <sub>D</sub>	200	mW
Channel Temperature		T <sub>CH</sub>	150	°C
Storage Temperature Range		T <sub>STG</sub>	-55 ~ +150	°C

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

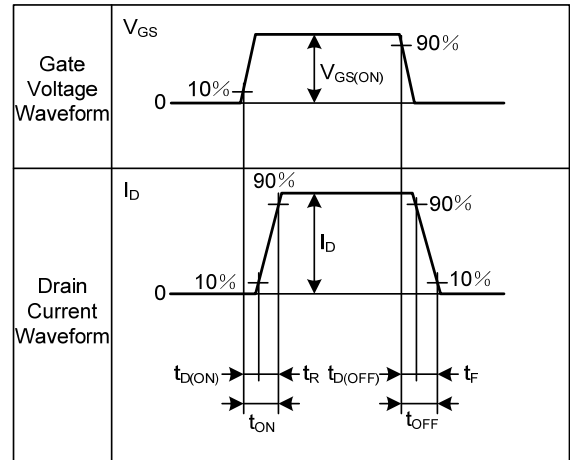
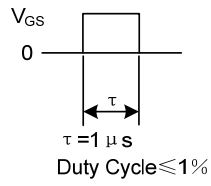
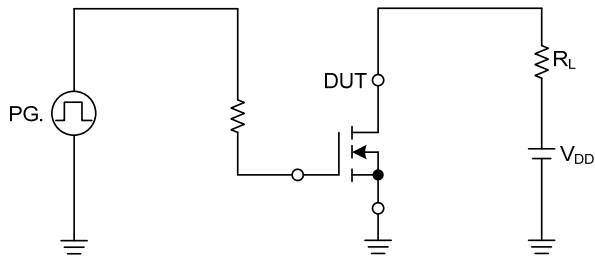
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. PW ≤ 10ms, Duty Cycle ≤ 50%

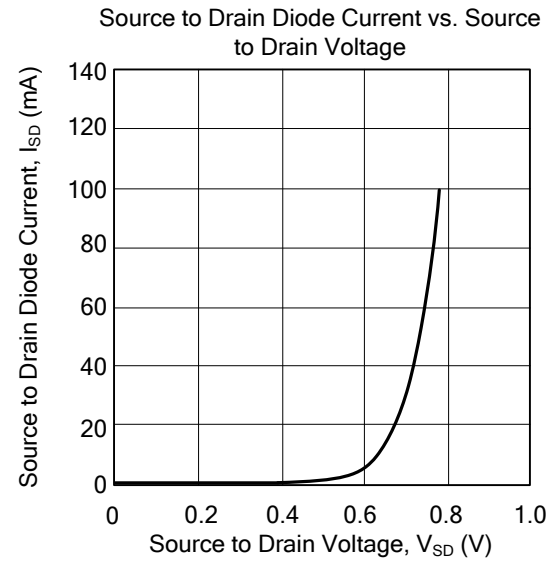
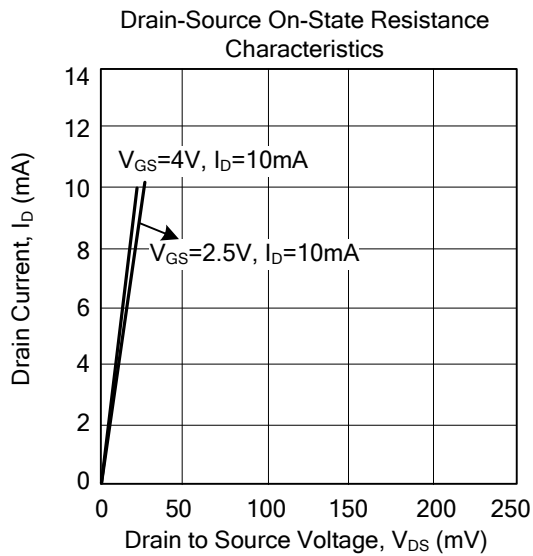
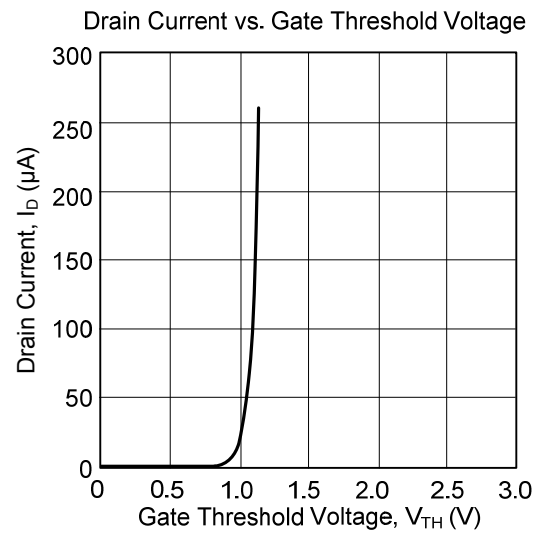
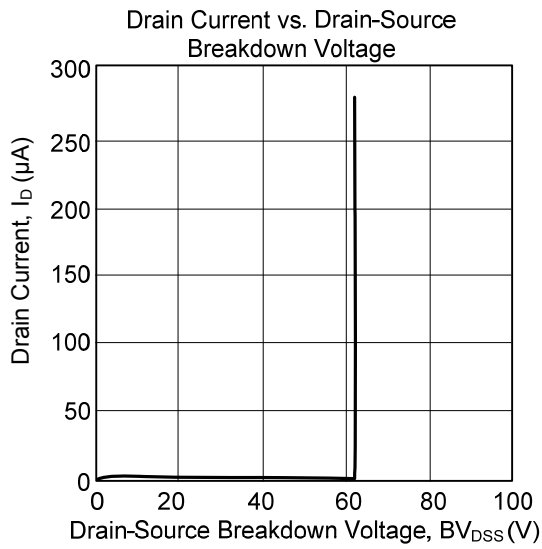
■ ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C, unless otherwise specified)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
<b>OFF CHARACTERISTICS</b>								
Drain-Source Breakdown Voltage		BV <sub>DSS</sub>	I <sub>D</sub> =250μA, V <sub>GS</sub> =0V	50			V	
Drain-Source Leakage Current		I <sub>DSS</sub>	V <sub>DS</sub> =50V, V <sub>GS</sub> =0V			10	μA	
Gate-Source Leakage Current	Forward	I <sub>GSS</sub>	V <sub>DS</sub> =0V, V <sub>GS</sub> =7.0V			5.0	μA	
	Reverse		V <sub>DS</sub> =0V, V <sub>GS</sub> =-7.0V			-5.0	μA	
<b>ON CHARACTERISTICS</b>								
Gate Threshold Voltage		V <sub>GS(OFF)</sub>	V <sub>DS</sub> =3.0V, I <sub>D</sub> =1.0μA	0.7	1.0	1.5	V	
Drain-Source On-State Resistance		R <sub>DS(ON)1</sub>	V <sub>GS</sub> =2.5V, I <sub>D</sub> =10mA		3	40	Ω	
		R <sub>DS(ON)2</sub>	V <sub>GS</sub> =4.0V, I <sub>D</sub> =10mA		2.3	20	Ω	
Forward Transconductance		y <sub>FS</sub>	V <sub>DS</sub> =3.0V, I <sub>D</sub> =10mA	20			mS	
<b>DYNAMIC PARAMETERS</b>								
Input Capacitance		C <sub>ISS</sub>	V <sub>DS</sub> =3.0V, V <sub>GS</sub> =0V, f=1.0MHz		27		pF	
Output Capacitance		C <sub>OSS</sub>				17		pF
Reverse Transfer Capacitance		C <sub>RSS</sub>				11		pF
<b>SWITCHING PARAMETERS</b>								
Turn-ON Delay Time		t <sub>D(ON)</sub>	V <sub>DD</sub> =3V, I <sub>D</sub> =20mA, V <sub>GS(ON)</sub> =3V, R <sub>G</sub> =10Ω, R <sub>L</sub> =120Ω		30		ns	
Turn-ON Rise Time		t <sub>r</sub>				18		ns
Turn-OFF Delay Time		t <sub>D(OFF)</sub>				42		ns
Turn-OFF Fall Time		t <sub>f</sub>				12.5		ns

## SWITCHING TIME MEASUREMENT CIRCUIT AND CONDITIONS



■ TYPICAL CHARACTERISTICS



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