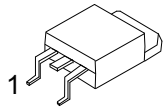
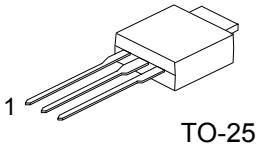
UT3055

Power MOSFET

12A, 25V N-CHANNEL POWER MOSFET



TO-252

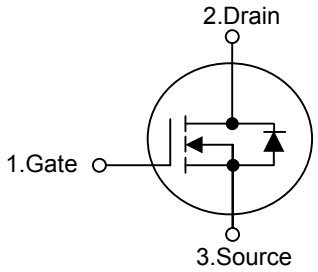


TO-251

■ DESCRIPTION

The UTC **UT3055** is N-Channel logic level enhancement mode field effect transistor.

■ SYMBOL



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UT3055-TM3-T	UT3055L-TM3-T	TO-251	G	D	S	Tube
UT3055-TN3-R	UT3055L-TN3-R	TO-252	G	D	S	Tape Reel
UT3055-TN3-T	UT3055L-TN3-T	TO-252	G	D	S	Tube

UT3055L-TN3-R (1)Packing Type (2)Package Type (3)Lead Free	(1) R: Tape Reel, T: Tube (2) TM3: TO-251, TN3: TO-252 (3) G: Halogen Free, L: Lead Free

Copyright © 2011 Unisonic Technologies Co., Ltd

■ ABSOLUTE MAXIMUM RATINGS (T_C = 25℃, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Drain-Source Voltage	V_{DSS}	25	V
Gate-Source Voltage	V_{GSS}	±16	V
Continuous Drain Current	I_D	12	A
Power Dissipation	P_D	50	W
Junction Temperature	T_J	+150	℃
Storage Temperature	T_{STG}	-55 ~ +150	℃

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.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	62	°C/W
Junction to Case	θ_{JC}	2.5	°C/W

■ ELECTRICAL CHARACTERISTICS (T_C =25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V, I_D=250uA	25			V
Drain-Source Leakage Current	I_{DSS}	V_{DS} =16 V, V_{GS} =0 V			10	μA
Gate-Source Leakage Current	I_{GSS}	V_{DS} =0 V, V_{GS} = ±12V			±100	nA
ON CHARACTERISTICS						
Gate Threshold Voltage	$V_{GS(TH)}$	V_{DS}=V_{GS}, I_D=250uA		1.1		V
Drain-Source On-State Resistance (Note 2)	$R_{DS(ON)}$	V_{GS}=10V, I_D=5A			70	mΩ
		V_{GS}=4.5V, I_D=5A			95	mΩ
DYNAMIC PARAMETERS						
Input Capacitance	C_{ISS}			240		pF
Output Capacitance	C_{OSS}			97		pF
Reverse Transfer Capacitance	C_{RSS}			68		pF
SWITCHING CHARACTERISTICS						
Total Gate Charge	Q_G	V_{GS}=4.5V		3.2		nC
Gate-Drain Charge	Q_{GD}			0.8		nC
SOURCE- DRAIN DIODE RATINGS AND CHARACTERISTICS						
Drain-Source Diode Forward Voltage (Note2)	V_{SD}	I_F=I_S, V_{GS}=0V			1.0	V
Maximum Continuous Drain-Source Diode Forward Current	I_S		5			A

Notes: 1. Pulse width limited by $T_{J(MAX)}$
2. Pulse width ≤300us, duty cycle ≤2%.

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.