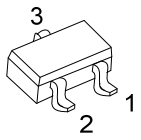
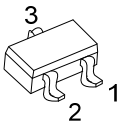
UT3P01Z

Power MOSFET

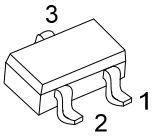
P CHANNEL POWER MOSFET



SOT-323



SOT-523



SOT-23-3

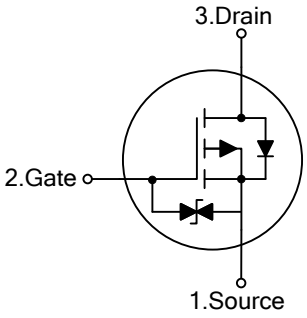
■ DESCRIPTION

The **UT3P01Z** uses UTC advanced technology to provide excellent R_{DS}(ON), low gate charge and operated with low gate voltages. This device can be applied to general-purpose switching devices applications.

■ FEATURES

* $R_{DS(ON)}$ = 8Ω @V_{GS} = -4 V
* Ultra Low Gate Charge (typical 1.43 nC)
* Low Reverse Transfer Capacitance (C_{RSS} = typical 1.8 pF)
* Fast Switching Capability
* Avalanche Energy Specified
* Improved dv/dt Capability, High Ruggedness
* Halogen Free

■ SYMBOL



■ ORDERING INFORMATION

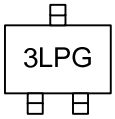
Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
UT3P01ZG-AL3-R	SOT-323	S	G	D	Tape Reel
UT3P01ZG-AN3-R	SOT-523	S	G	D	Tape Reel
UT3P01ZG-AE2-R	SOT-23-3	S	G	D	Tape Reel

UT3P01ZG-AL3-R

(1)Packing Type
(2)Package Type
(3) Halogen Free

(1) R: Tape Reel
(2) AL3: SOT-323, AN3: SOT-523, AE2: SOT-23-3
(3) G: Halogen Free

■ MARKING



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■ ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

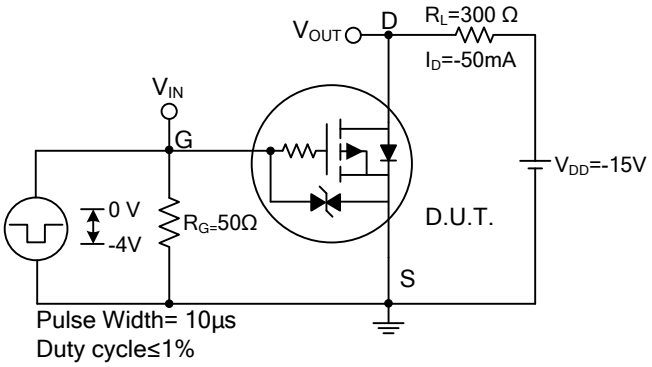
PARAMETER		SYMBOL	RATINGS	UNIT
Drain-Source Voltage		V_{DSS}	-30	V
Gate-Source Voltage		V_{GSS}	±10	V
Drain Current	DC	I_D	-0.1	A
	Pulse(Note 2)		-0.4	A
Power Dissipation	SOT-523	P_D	150	mW
	SOT-323 / SOT-23-3		200	mW
Storage Temperature		T_{STG}	-55 ~ +150	°C

Note: 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. Pulse width≤10μs, Duty cycle≤1%

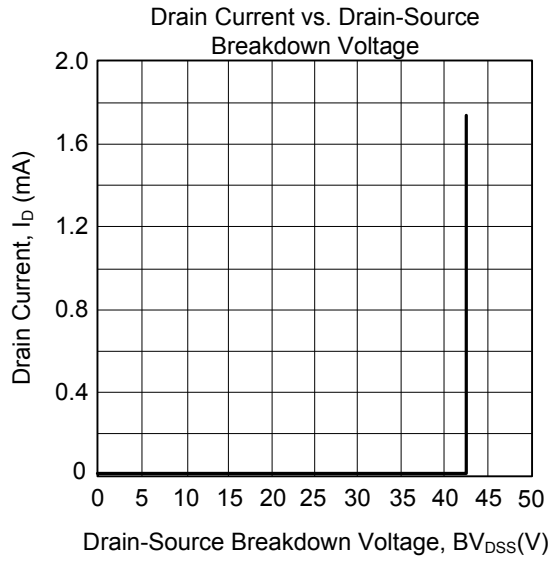
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

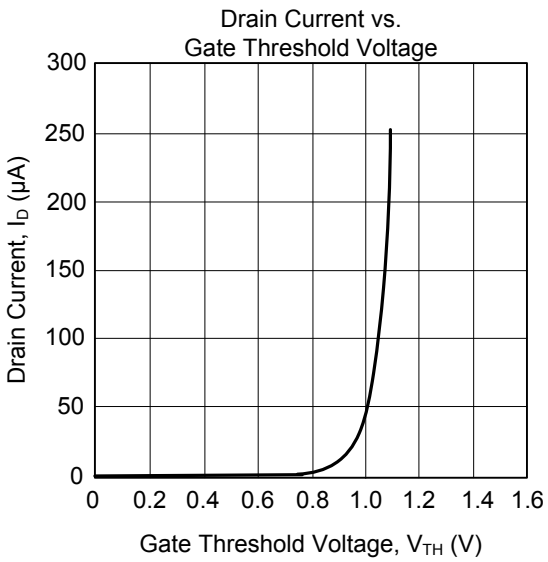
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V, I_D=-1mA	-30			V
Drain-Source Leakage Current	I_{DSS}	V_{DS}=-30V,V_{GS}=0V			-1	μA
Gate-Source Leakage Current	I_{GSS}	V_{GS}=±8V, V_{DS}=0V			±10	μA
ON CHARACTERISTICS						
Cutoff Threshold Voltage	$V_{GS(OFF)}$	V_{DS}=-10V, I_D=-100μA	-0.4		-1.4	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=-4V, I_D=-50mA		8	10.4	Ω
		V_{GS}=-2.5V, I_D=-30mA		11	15.4	Ω
		V_{GS}=-1.5V, I_D=-1mA		27	54	Ω
Forward Transconductance	g_{FS}	V_{DS}=-10V, I_D=-50mA	80	110		mS
DYNAMIC PARAMETERS						
Input Capacitance	C_{ISS}	V_{DS}=-10V, V_{GS}=0 V, f=1.0MHz		7.5		pF
Output Capacitance	C_{OSS}			5.7		pF
Reverse Transfer Capacitance	C_{RSS}			1.8		pF
SWITCHING PARAMETERS						
Total Gate Charge	Q_G	V_{DS}=-10V, V_{GS}=-10V, I_D=-100mA		1.43		nC
Gate Source Charge	Q_{GS}			0.18		nC
Gate Drain Charge	Q_{GD}			0.25		nC
Turn-ON Delay Time	$t_{D(ON)}$	See specified Test Circuit		24		ns
Turn-ON Rise Time	t_R			55		ns
Turn-OFF Delay Time	$t_{D(OFF)}$			120		ns
Turn-OFF Fall-Time	t_F			130		ns
SOURCE- DRAIN DIODE RATINGS AND CHARACTERISTICS						
Drain-Source Diode Forward Voltage	V_{SD}	I_S=-100mA, V_{GS}=0V		-0.83	-1.2	V

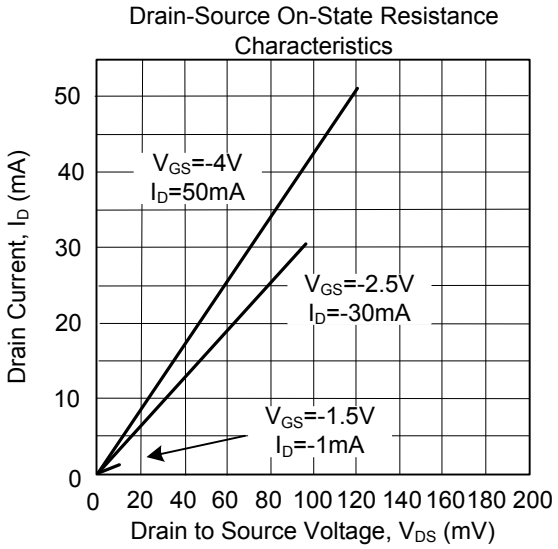
■ SWITCHING TIME TEST CIRCUIT

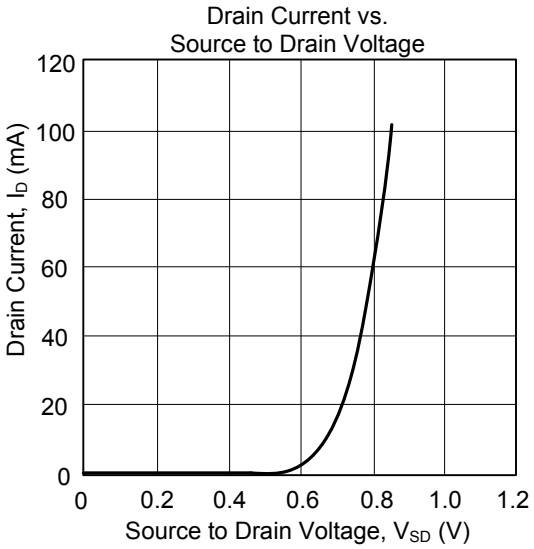


■ TYPICAL CHARACTERISTICS









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