



UT6354-H

Power MOSFET

-4A, -60V P-CHANNEL SILICON MOSFET

■ DESCRIPTION

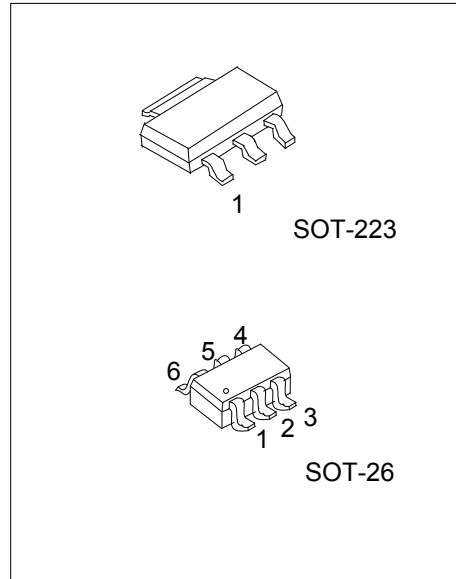
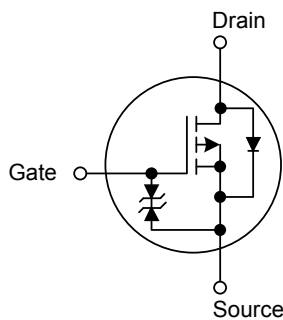
The UTC **UT6354-H** is a P-Channel Silicon MOSFET, it uses UTC's advanced technology to provide the customers with a minimum on state resistance and low gate charge, etc.

The UTC **UT6354-H** is suitable for general-purpose switching device applications.

■ FEATURES

- * $R_{DS(ON)} \leq 100m\Omega$ @ $V_{GS}=-10V, I_D=-2.0A$
- * Low gate charge

■ SYMBOL



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment						Packing
Lead Free	Halogen Free		1	2	3	4	5	6	
UT6354L-AA3-R	UT6354G-AA3-R	SOT-223	G	D	S	-	-	-	Tape Reel
UT6354L-AG6-R	UT6354G-AG6-R	SOT-26	D	D	G	S	D	D	Tape Reel

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

<p>UT6354G-AA3-R</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Green Package 	<ul style="list-style-type: none"> (1) R: Tape Reel (2) AA3: SOT-223, AG6: SOT-26 (3) G: Halogen Free and Lead Free, L: Lead Free
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■ MARKING

SOT-223	SOT-26

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

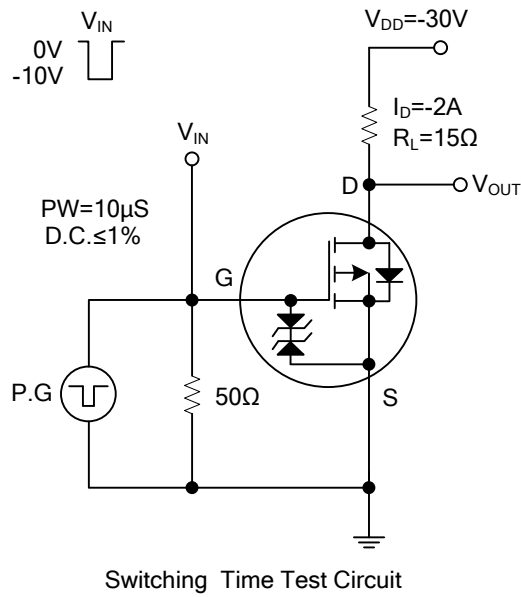
PARAMETER	SYMBOL	RATINGS	UNIT
Drain-Source Voltage	V_{DSS}	-60	V
Gate-Source Voltage	V_{GSS}	± 20	V
Drain Current (DC)	I_D	-4	A
Drain Current (Pulse)	I_{DP}	-16	A
Allowable Power Dissipation (When Mounted on Ceramic Substrate ($1500\text{mm}^2 \times 0.8\text{mm}$))	SOT-223	2.3	W
	SOT-26	1.6	W
Junction Temperature	T_J	+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.

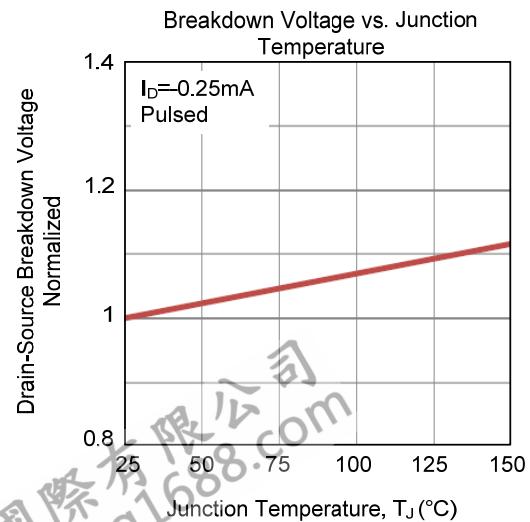
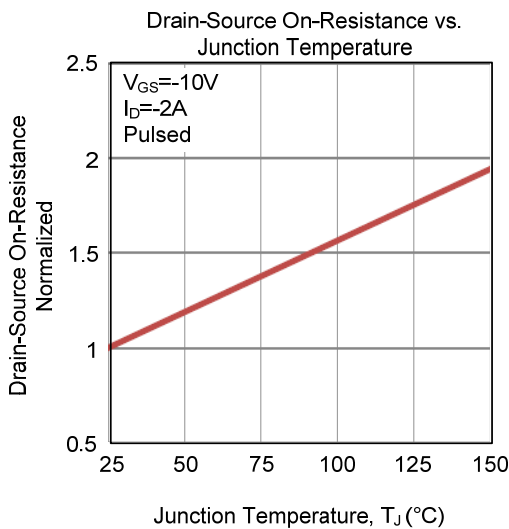
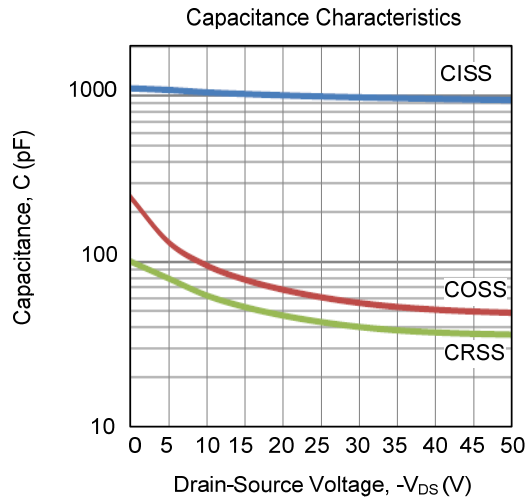
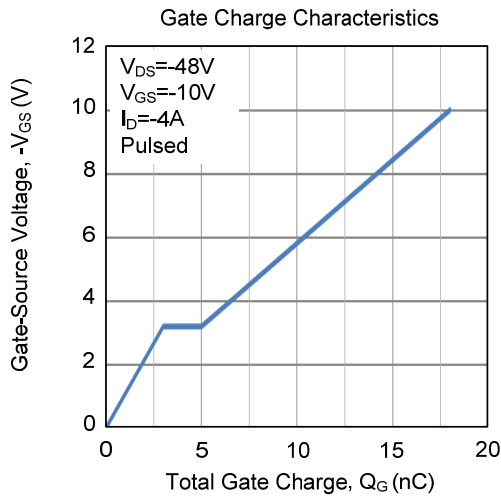
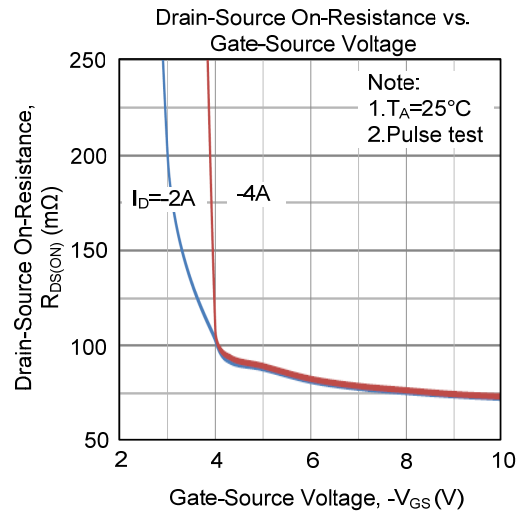
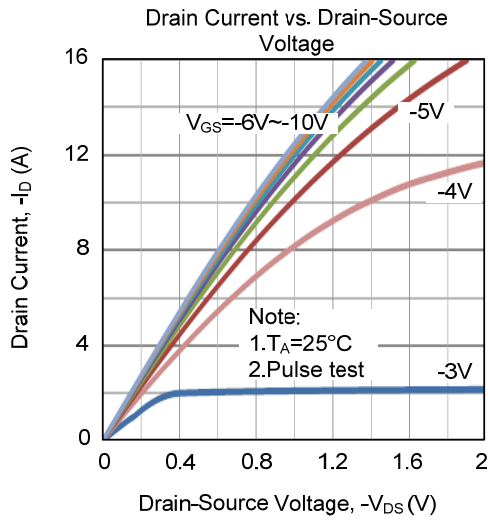
■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=-1\text{mA}, V_{GS}=0\text{V}$	-60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-60\text{V}, V_{GS}=0\text{V}$			-1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 16\text{V}, V_{DS}=0\text{V}$			± 10	μA
ON CHARACTERISTICS						
Cutoff Voltage	$V_{GS(OFF)}$	$V_{DS}=-10\text{V}, I_D=-1\text{mA}$	-1.2		-2.6	V
Static Drain-Source On-State Resistance	$R_{DS(ON)}$	$V_{GS}=-10\text{V}, I_D=-2\text{A}$		77	100	$\text{m}\Omega$
		$V_{GS}=-4.5\text{V}, I_D=-1\text{A}$		96	135	$\text{m}\Omega$
		$V_{GS}=-4\text{V}, I_D=-1\text{A}$		103	145	$\text{m}\Omega$
DYNAMIC PARAMETERS						
Input Capacitance	C_{ISS}	$V_{DS}=-20\text{V}, f=1.0\text{MHz}$		950		pF
Output Capacitance	C_{OSS}			60		pF
Reverse Transfer Capacitance	C_{RSS}			40		pF
SWITCHING PARAMETERS						
Total Gate Charge	Q_G	$V_{DS}=-48\text{V}, V_{GS}=-10\text{V}, I_D=-4\text{A}$ $I_G=-1\text{mA}$		18		nC
Gate to Source Charge	Q_{GS}			3		nC
Gate to Drain Charge	Q_{GD}			2		nC
Turn-ON Delay Time	$t_{D(ON)}$	$V_{DS}=-30\text{V}, V_{GS}=-10\text{V}, I_D=-4\text{A}$ $R_G=25\Omega$		15		ns
Rise Time	t_R			17		ns
Turn-OFF Delay Time	$t_{D(OFF)}$			93		ns
Fall-Time	t_F			50		ns
SOURCE- DRAIN DIODE RATINGS AND CHARACTERISTICS						
Diode Forward Voltage	V_{SD}	$I_S=-4\text{A}, V_{GS}=0\text{V}$		-0.84	-1.2	V

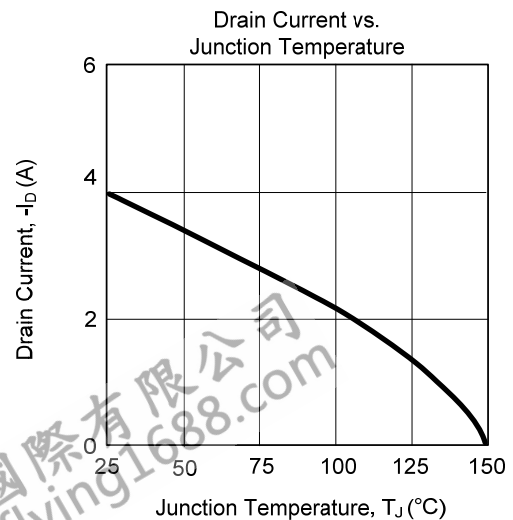
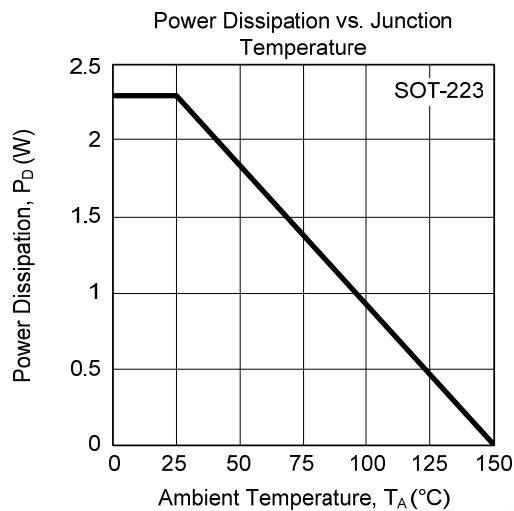
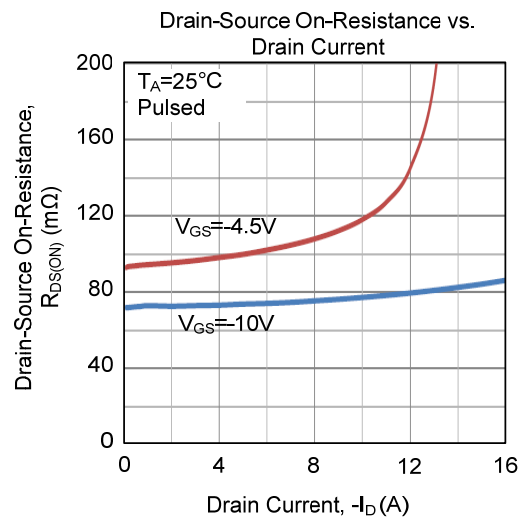
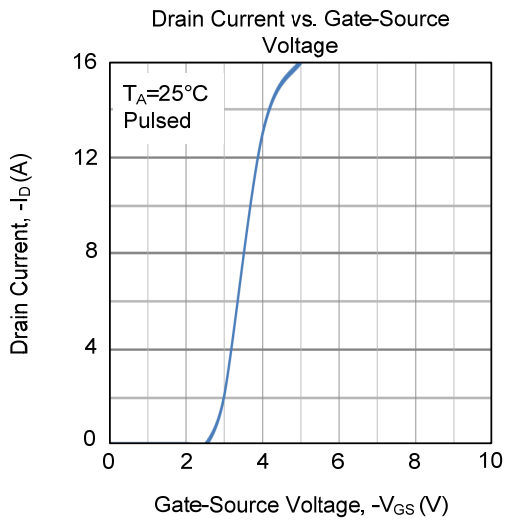
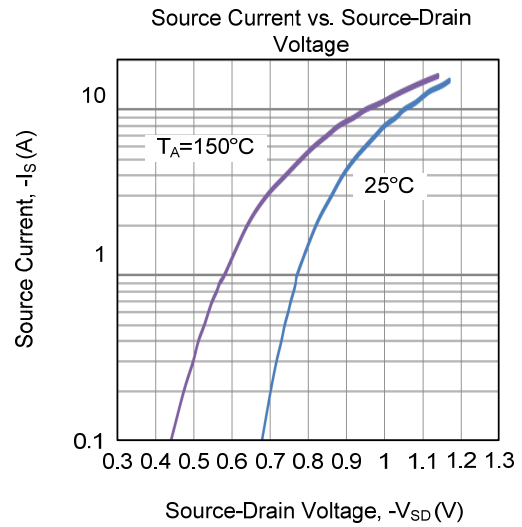
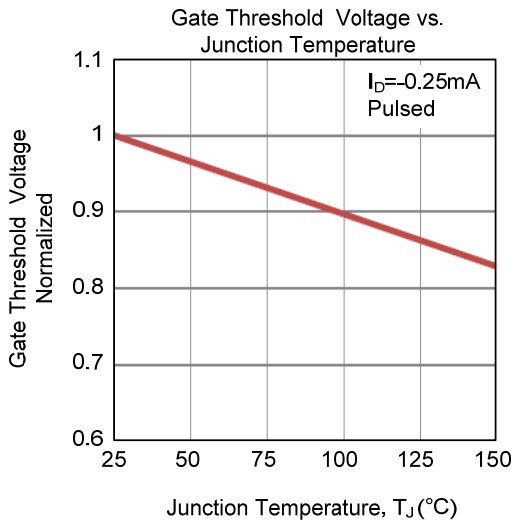
■ TEST CIRCUITS AND WAVEFORMS



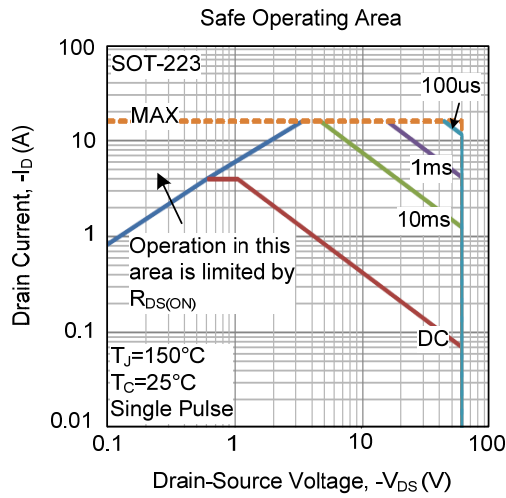
TYPICAL CHARACTERISTICS



TYPICAL CHARACTERISTICS (Cont.)



■ TYPICAL CHARACTERISTICS (Cont.)



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