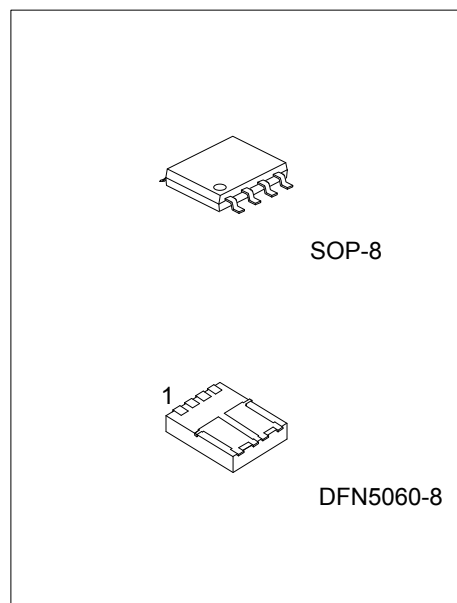
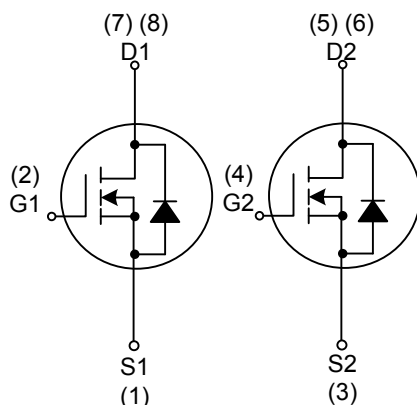


**UT4822****Power MOSFET****DUAL N-CHANNEL
ENHANCEMENT MODE****DESCRIPTION**

The **UT4822** can provide excellent $R_{DS(ON)}$ and low gate charge by using advanced trench technology. The **UT4822** is suitable for using as a load switch or in PWM applications.

FEATURES

- * 30V/8.5A
- * Low $R_{DS(ON)}$
- * Reliable and Rugged

SYMBOL**ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment								Packing
Lead Free	Halogen Free		1	2	3	4	5	6	7	8	
UT4822L-S08-R	UT4822G-S08-R	SOP-8	S1	G1	S2	G2	D2	D2	D1	D1	Tape Reel
UT4822L-K08-5060-R	UT4822G-K08-5060-R	DFN5060-8	S1	G1	S2	G2	D2	D2	D1	D1	Tape Reel

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

UT4822G-S08-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) S08: SOP-8, K08-5060: DFN5060-8
	(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

MARKING

SOP-8	DFN5060-8
UTC □ □ □ □ → Date Code UT4822 □ → L: Lead Free □ □ □ □ → G: Halogen Free • □ □ □ □ → Lot Code	UTC UT 4822 • □ □ □ □ → Lot Code → Date Code

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

PARAMETER		SYMBOL	RATINGS	UNIT
Drain-Source Voltage		V_{DS}	30	V
Gate-Source Voltage		V_{GS}	± 20	V
Continuous Drain Current		I_D	8.5	A
Pulsed Drain Current		I_{DM}	40	A
Power Dissipation	SOP-8	P_D	2	W
	DFN5060-8		2.7	W
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-55 ~ +150	$^\circ\text{C}$

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 limited by $T_{J(MAX)}$

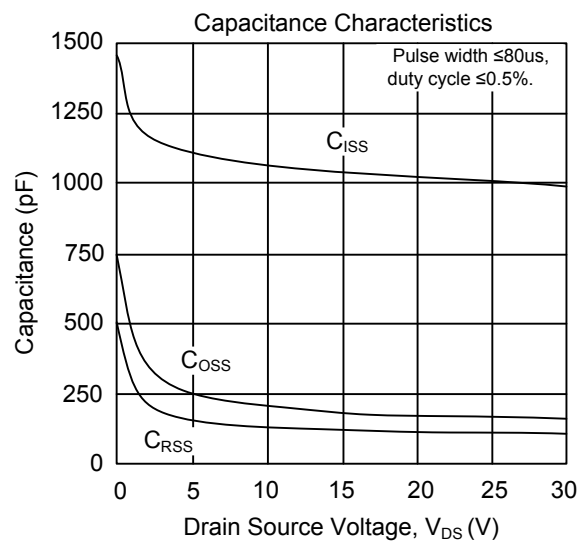
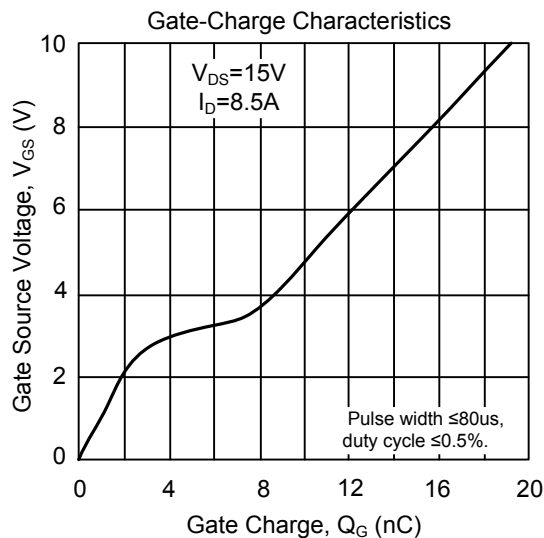
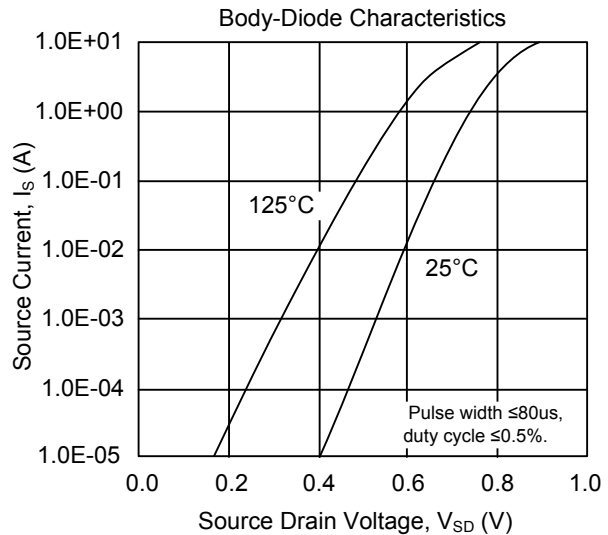
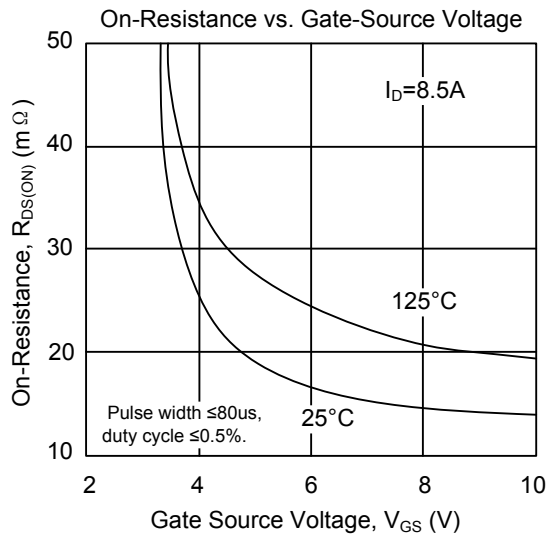
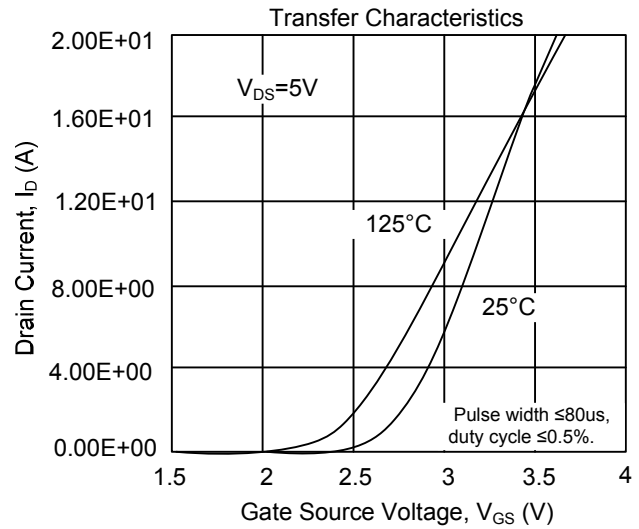
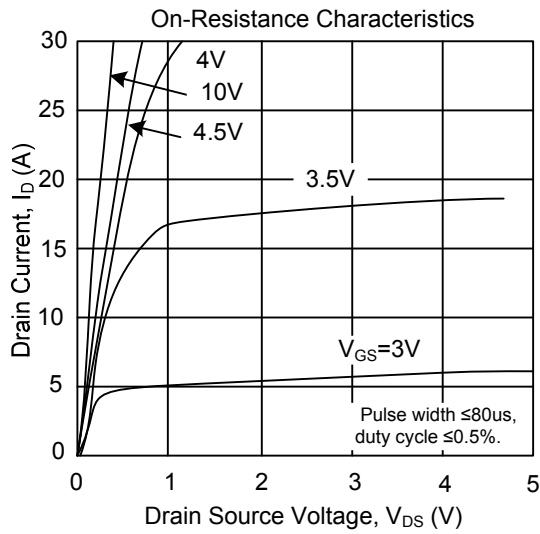
■ THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	SOP-8	θ_{JA}	110	$^\circ\text{C/W}$
	DFN5060-8		46	$^\circ\text{C/W}$

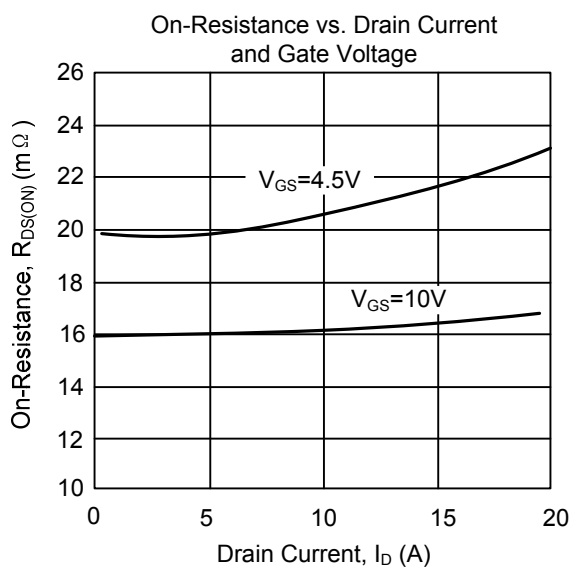
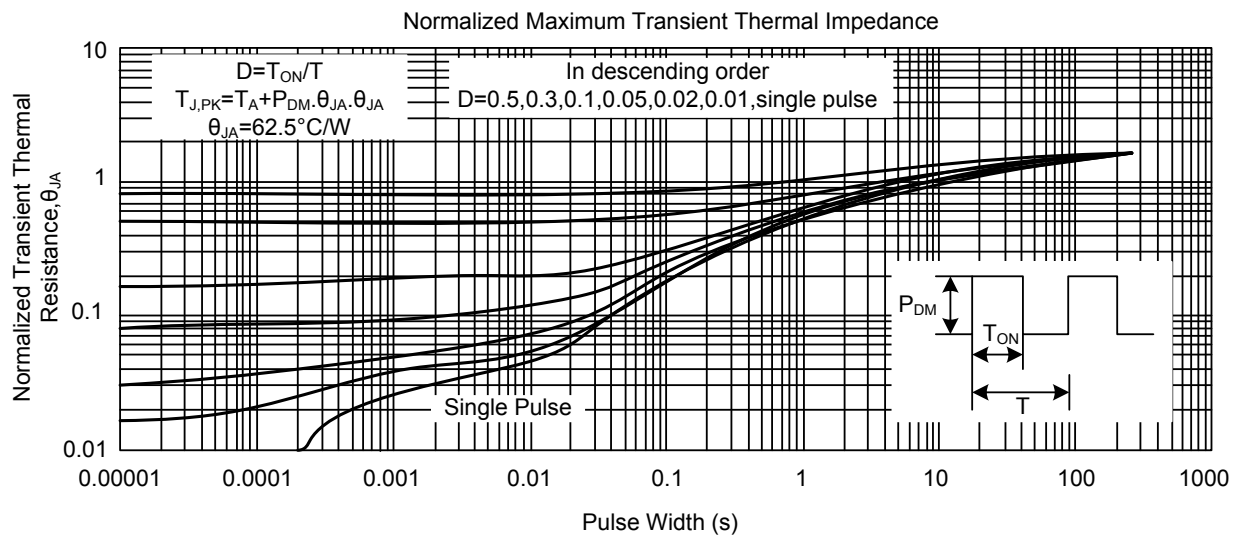
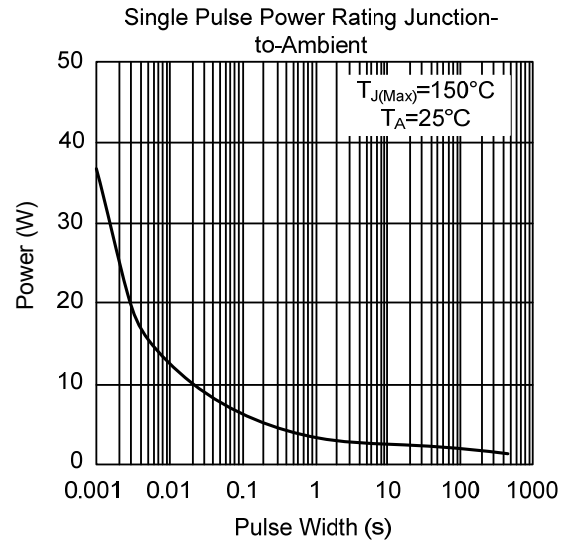
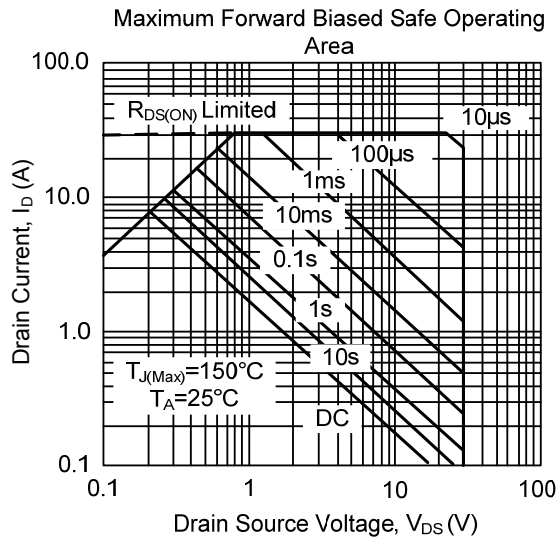
■ ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =250uA	30			V
Drain-Source Leakage Current	I _{DSS}	V _{DS} =24V, V _{GS} =0V			1	uA
Gate-Source Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±100	nA
ON CHARACTERISTICS						
Gate Threshold Voltage	V _{GS(TH)}	V _{DS} =V _{GS} , I _D =250uA	1	1.8	3	V
Drain-Source On-State Resistance	R _{DS(ON)}	V _{GS} =10V, I _D =8.5A		16	19	mΩ
		V _{GS} =4.5V, I _D =6.0A		21	26	mΩ
DYNAMIC CHARACTERISTICS						
Input Capacitance	C _{ISS}	V _{GS} =0V, V _{DS} =15V, f=1.0MHz		1040	1250	pF
Output Capacitance	C _{OSS}			180		pF
Reverse Transfer Capacitance	C _{RSS}			110		pF
SWITCHING CHARACTERISTICS						
Total Gate Charge	Q _G	V _{DS} =15V, V _{GS} =10V, I _D =8.5A		19.2	23	nC
Gate-Source Charge	Q _{GS}			2.6		nC
Gate-Drain Charge	Q _{GD}			4.2		nC
Turn-ON Delay Time	t _{D(ON)}	V _{DD} =15V, V _{GS} =10V, R _G =3Ω, R _L =1.8Ω		5.2	7.5	ns
Turn-ON Rise Time	t _R			4.4	6.5	ns
Turn-OFF Delay Time	t _{D(OFF)}			17.3	25	ns
Turn-OFF Fall Time	t _F			3.3	5	ns
SOURCE- DRAIN DIODE RATINGS AND CHARACTERISTICS						
Maximum Continuous Drain-Source Diode Forward Current	I _S				3	A
Drain-Source Diode Forward Voltage	V _{SD}	I _S =1A, V _{GS} =0V		0.76	1	V
Reverse Recovery Time	t _{rr}	I _F = 8.5A, dI _F /dt = 100 A/μs		16.7	21	ns
Reverse Recovery Charge	Q _{rr}			6.7	10	nC

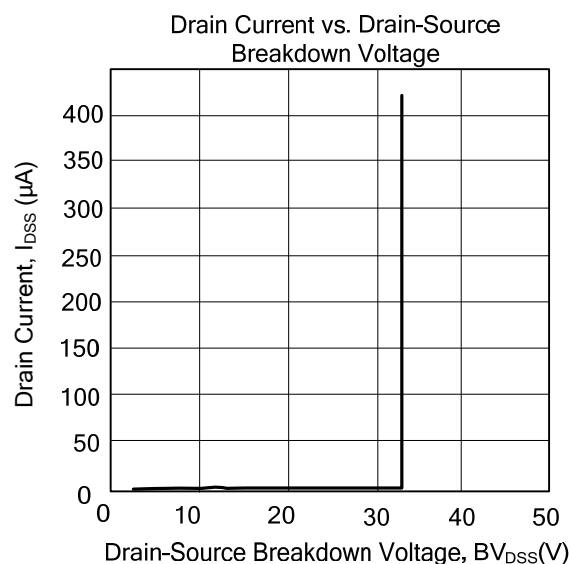
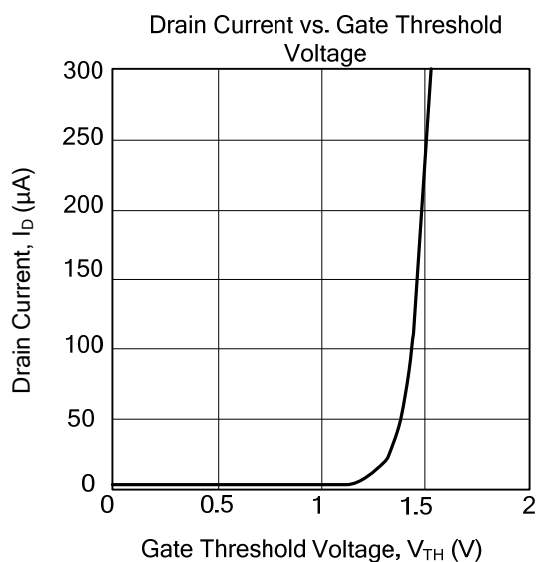
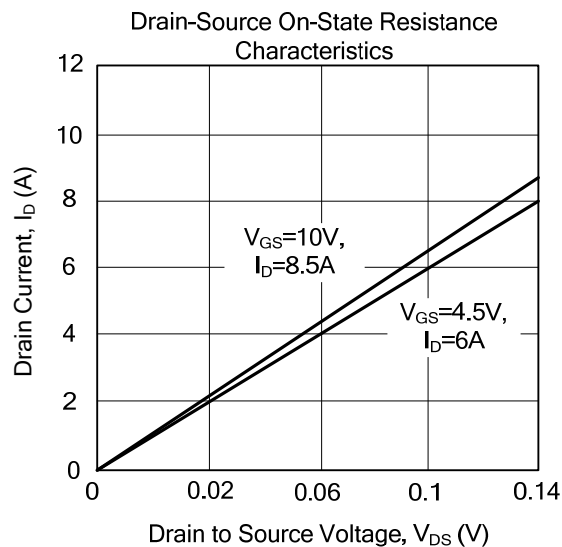
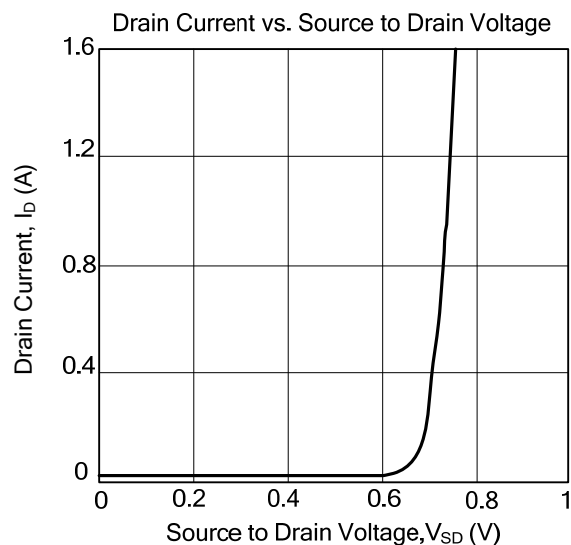
■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



■ TYPICAL CHARACTERISTICS (Cont.)



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