



UT7317

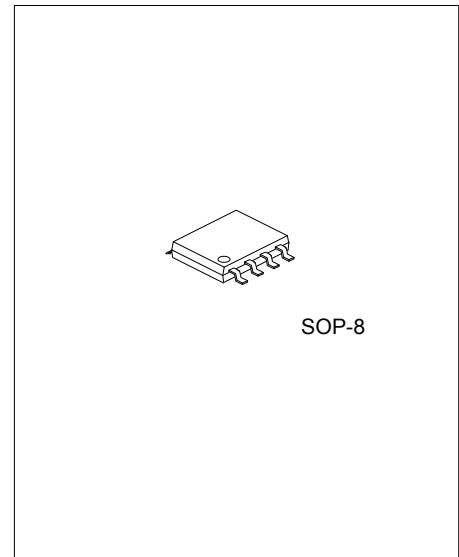
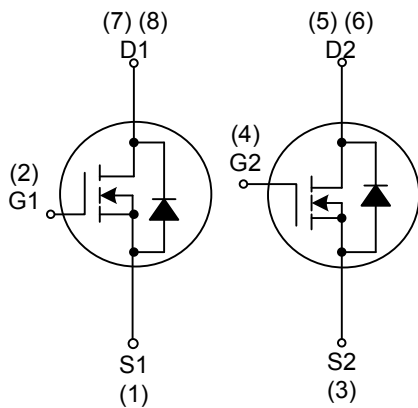
Power MOSFET

DUAL N-CHANNEL ENHANCEMENT MODE

■ FEATURES

- * 30V/6A
- * Low $R_{DS(ON)}$
- * Reliable and Rugged

■ SYMBOL



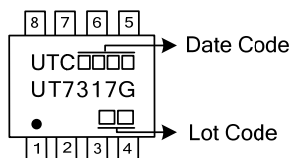
■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment								Packing
		1	2	3	4	5	6	7	8	
UT7317G-S08-R	SOP-8	S	G	S	G	D	D	D	D	Tape Reel

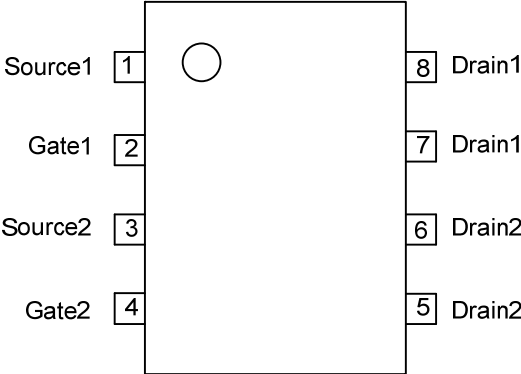
Note: Pin Assignment: G: Gate D: Drain S: Source

<p>UT7317G-S08-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) S08: SOP-8 (3) G: Halogen Free and Lead Free
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■ MARKING



■ PIN CONFIGURATION



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

PARAMETER	SYMBOL	RATINGS	UNIT
Drain-Source Voltage	V_{DSS}	30	V
Gate-Source Voltage	V_{GSS}	± 20	
Continuous Drain Current (Note 3)	I_D	6	A
Pulsed Drain Current (Note 3)	I_{DM}	24	
Power Dissipation	P_D	2.5	W
Maximum 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.

■ THERMAL DATA

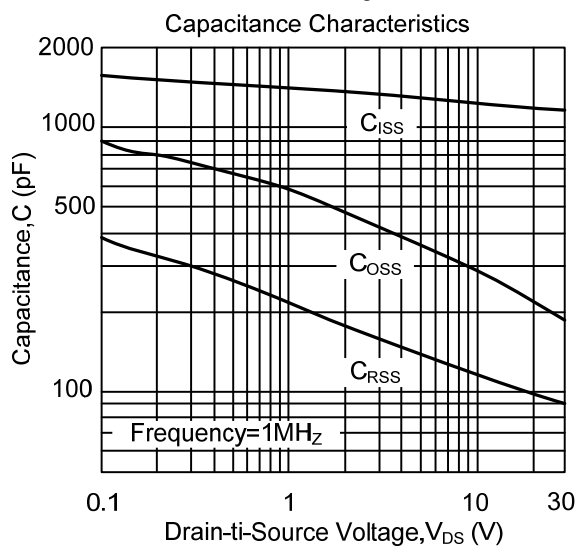
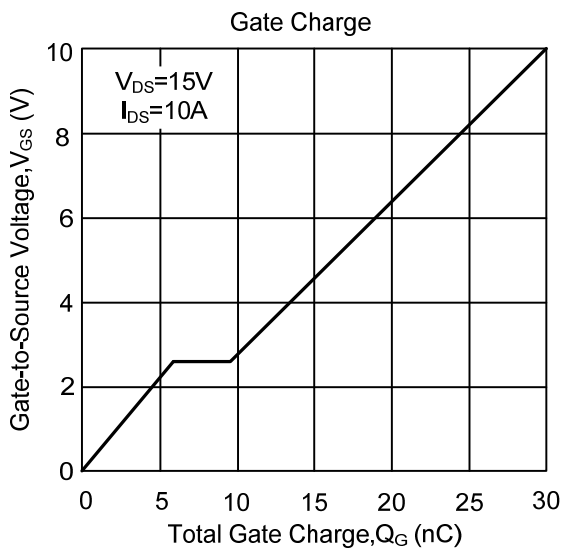
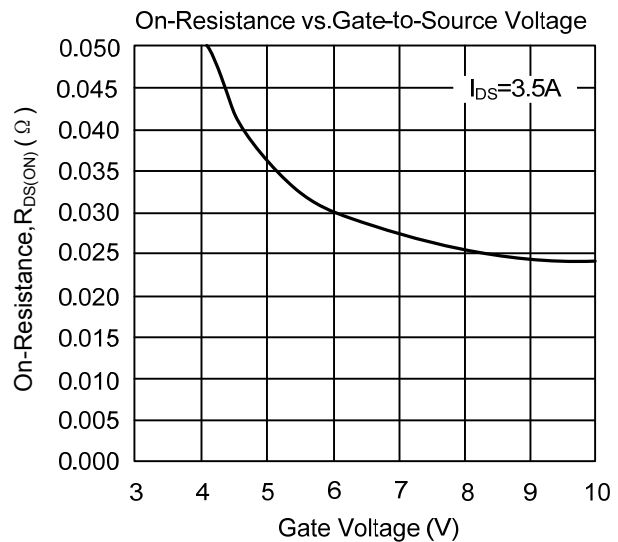
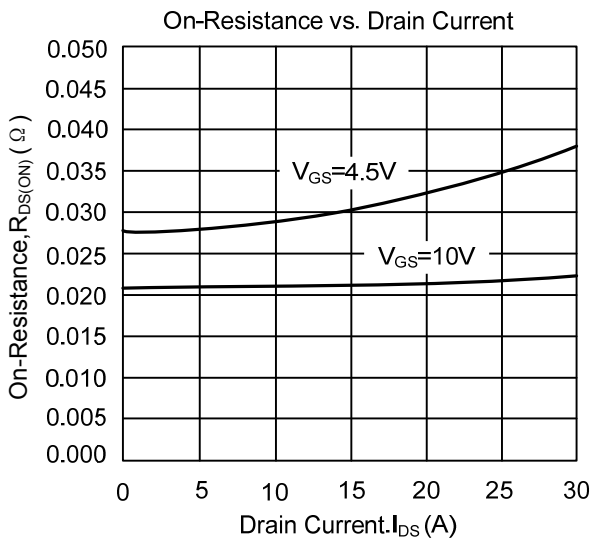
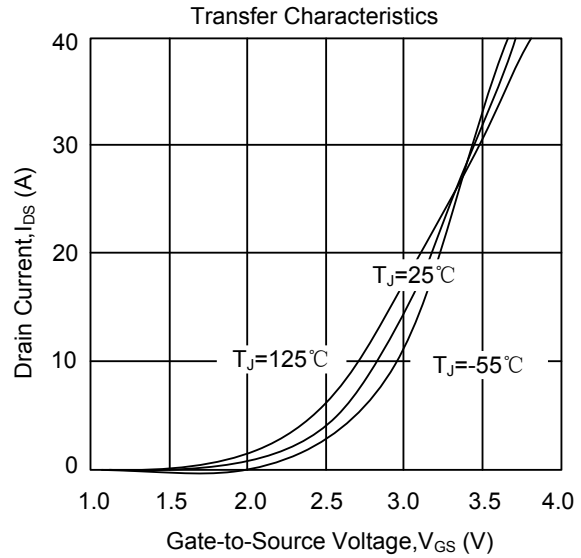
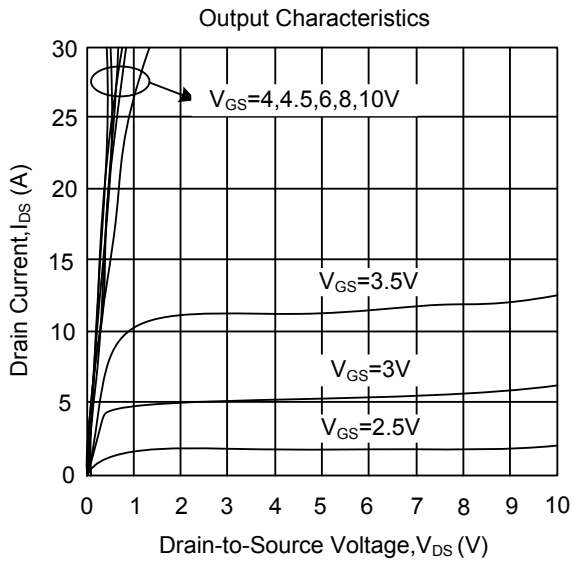
PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Junction to Ambient (Note3)	θ_{JA}			50	$^\circ\text{C/W}$

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

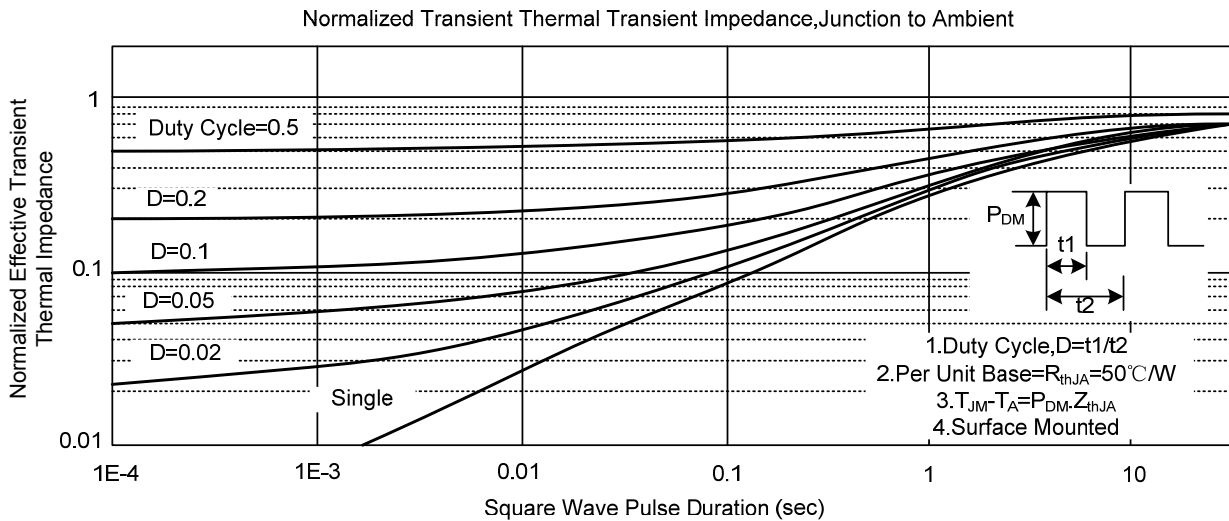
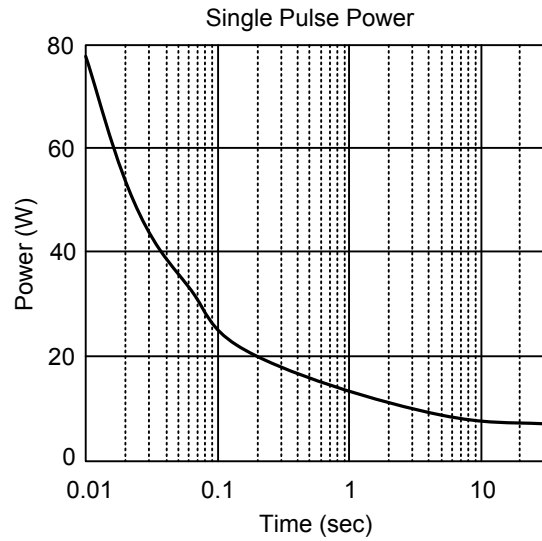
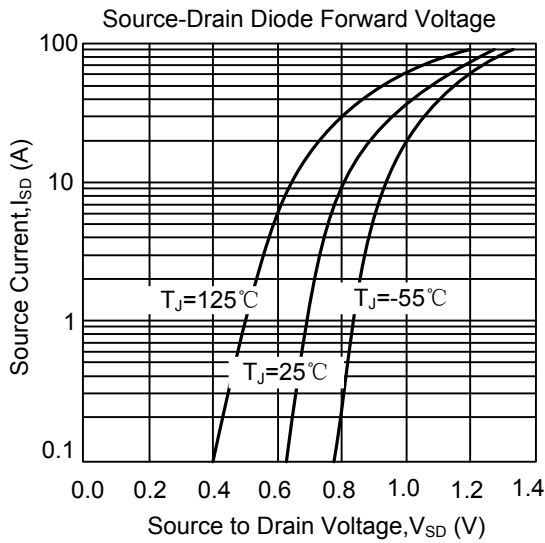
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=250\mu\text{A}$	30			V
Drain-Source Leakage Current	I_{DSS}	$V_{DS}=24V, V_{GS}=0V$			1	μA
Gate-Source Leakage Current	I_{GSS}	$V_{DS}=0V, V_{GS}=\pm 20V$			± 100	nA
ON CHARACTERISTICS						
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	1	1.5	2	V
Drain-Source On-State Resistance (Note2)	$R_{DS(ON)}$	$V_{GS}=10V, I_D=3.5A$		21	28	m Ω
		$V_{GS}=4.5V, I_D=2A$		27	42	m Ω
DYNAMIC CHARACTERISTICS						
Input Capacitance	C_{ISS}	$V_{GS}=0V, V_{DS}=25V, f=1.0\text{MHz}$		1200		pF
Output Capacitance	C_{OSS}			210		pF
Reverse Transfer Capacitance	C_{RSS}			95		pF
SWITCHING CHARACTERISTICS						
Turn-ON Delay Time (Note2)	$t_{D(ON)}$	$V_{DD}=15V, V_{GS}=10V, I_D=2A, R_G=6\Omega$		11	22	ns
Turn-ON Rise Time	t_R			17	33	ns
Turn-OFF Delay Time	$t_{D(OFF)}$			37	68	ns
Turn-OFF Fall Time	t_F			20	38	ns
Total Gate Charge (Note2)	Q_G			30	36	nC
Gate-Source Charge	Q_{GS}	$V_{DS}=15V, V_{GS}=10V, I_D=10A$		5.8		nC
Gate-Drain Charge	Q_{GD}			3.8		nC
SOURCE- DRAIN DIODE RATINGS AND CHARACTERISTICS						
Drain-Source Diode Forward Voltage(Note2)	V_{SD}	$I_S=2A, V_{GS}=0V$		0.7	1.3	V

- Notes: 1. Pulse width limited by $T_{J(MAX)}$
 2. Pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.
 3. Surface Mounted on 1in^2 pad area, $t \leq 10\text{sec}$.

■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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