

**Dual N-Channel Enhancement-Mode MOSFET(20V, 8 A)****PRODUCT SUMMARY**

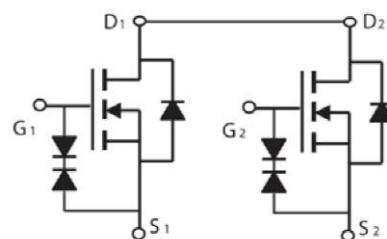
V _{DS}	I _D	R _{DS(on)} (m-ohm) Max
20V	8A	12@ V _{GS} = 4.5V, I _D =4.5A
		14.5@ V _{GS} = 2.5V, I _D =3.5A

◆ Features

1. High density cell design for ultra low On-Resistance.
2. Advanced trench process technology.
3. RoHS Compliant.
4. ESD Protected

**TSSOP-8**

Pin 1/8: Drain1/ Drain2
Pin 2/3: Source1
Pin 4: Gate1
Pin 5: Gate2
Pin 6 / 7 : Source2

**◆ Absolute Maximum Ratings** (T_A=25°C, unless otherwise noted)

Symbol	Parameter	Ratings	Units
V _{DS}	Drain-Source Voltage	20	V
V _{GS}	Gate-Source Voltage	±10	V
I _D	Drain Current (Continuous) ^a	8	A
I _{DM}	Drain Current (Pulsed) ^b	32	A
P _D	Total Power Dissipation @T _A =25°C	2	W
T _j , T _{stg}	Operating Junction and Storage Temperature Range	-55 to +150	°C
R _{θJA}	Thermal Resistance Junction to Ambient (PCB mounted) ^c	100	°C/W



a:Fused current that based on wire numbers and diameter

b:Repetitive Rating: Pulse width limited by the maximum junction temperature

c:1-in² 2oz Cu PCB board

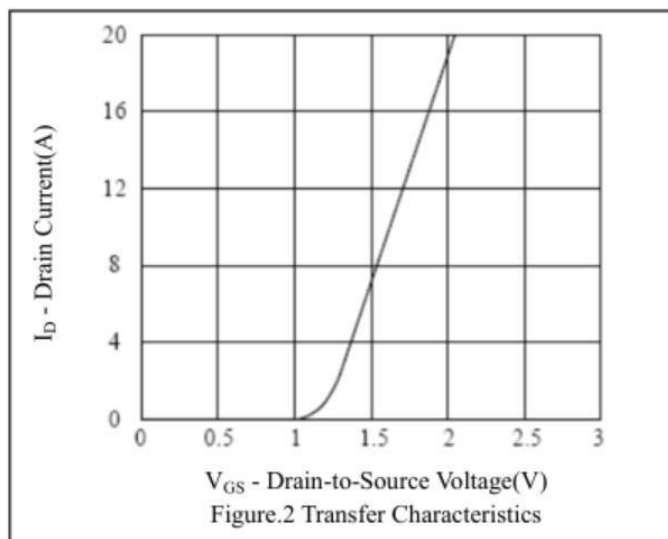
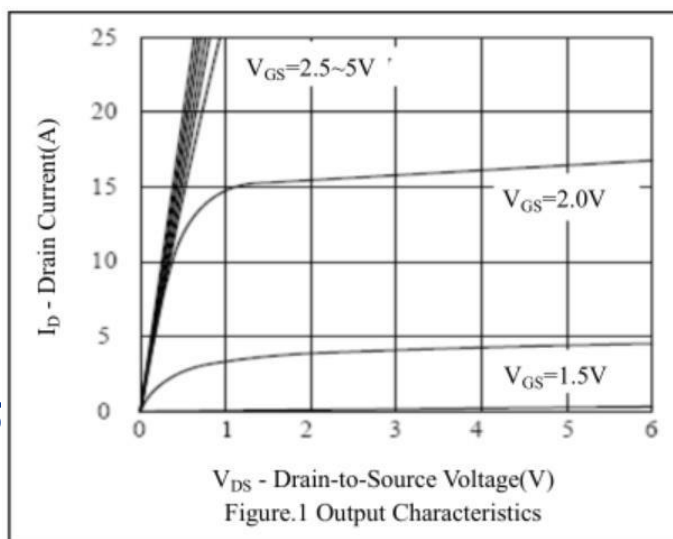
◆ Electrical Characteristics (T_A=25°C, unless otherwise noted)

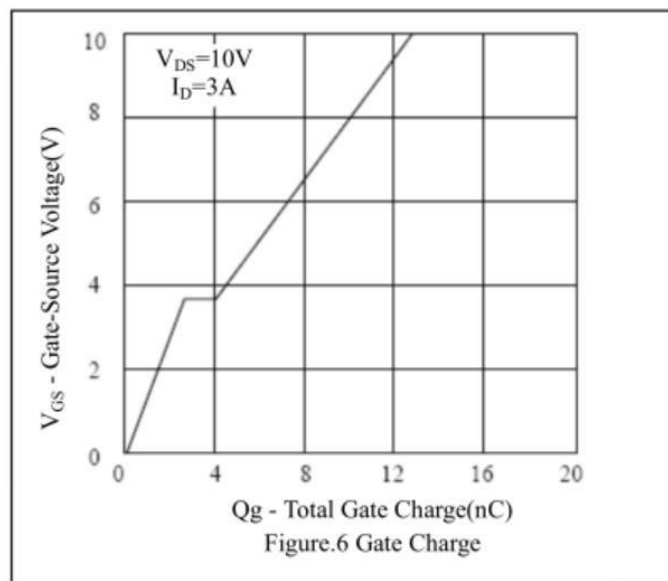
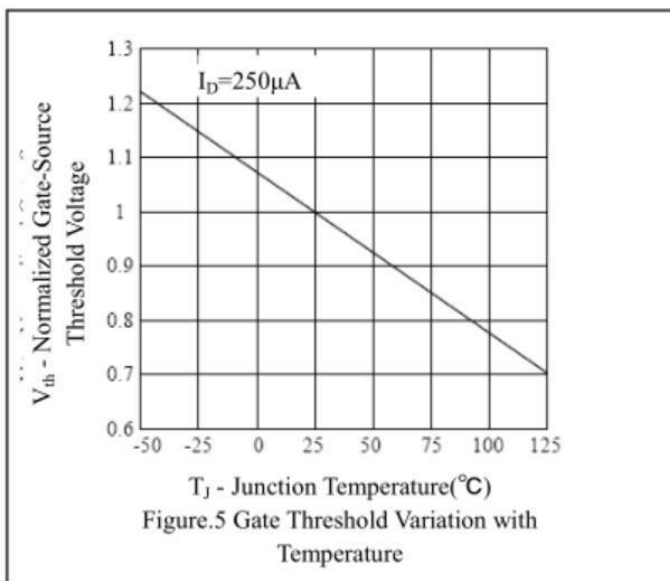
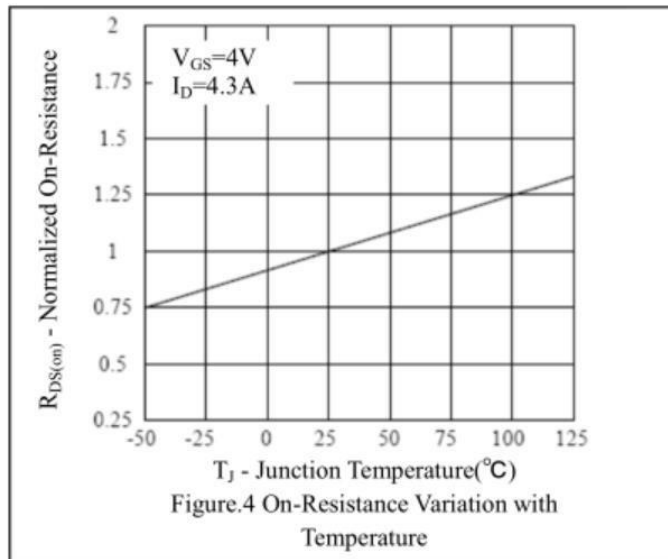
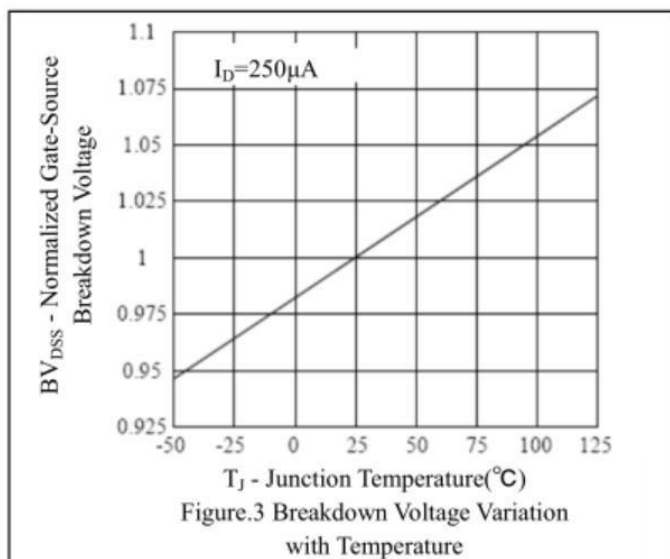
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
• Off Characteristics						
B _V DSS	Drain-Source Breakdown Voltage	V _{GS} =0V, I _D =250uA	20	-	-	V
I _D SS	Zero Gate Voltage Drain Current	V _D S=15V, V _G S=0V	-	-	1	uA
I _G SS	Gate-Body Leakage Current	V _G S=±10V, V _D S=0V	-	-	±10	uA
• On Characteristics						
V _{GS} (th)	Gate Threshold Voltage	V _D S=V _G S, I _D =250uA	0.5	-	1.1	V
R _D S(on)	Drain-Source On-State Resistance	V _G S=4.5V, I _D =4.5A	-	12	13	mΩ
		V _G S=2.5V, I _D =3.5A	-	14.5	16	
• Dynamic Characteristics ^d						
C _i SS	Input Capacitance	V _D S=10V, V _G S=0V, f=1MHz	-	950	-	pF
C _o SS	Output Capacitance		-	450	-	
C _r SS	Reverse Transfer Capacitance		-	135	-	
• Switching Characteristics ^d						
Q _g	Total Gate Charge	V _D S=10V, I _D =3A, V _G S=4.5V	-	9.2	-	nC
Q _{gs}	Gate-Source Charge		-	2.7	-	
Q _{gd}	Gate-Drain Charge		-	3.7	-	
t _d (on)	Turn-on Delay Time	V _{DD} =10V, I _D =1A, V _{GEN} =4.5V, R _G =6Ω	-	10	-	nS
t _r	Turn-on Rise Time		-	14	-	
t _d (off)	Turn-off Delay Time		-	39	-	
t _f	Turn-off Fall Time		-	26	-	
• Drain-Source Diode Characteristics						
I _S	Maximum Diode Forward Current		-	-	1.7	A
V _{SD}	Drain-Source Diode Forward Voltage	V _G S=0V, I _S =1.7A	-	-	1.2	V

Note: Pulse Test: Pulse Width ≤300us, Duty Cycles≤2%

d: Guaranteed by design: not subject to production testing

◆ Characteristics Curve





◆ Characteristics Curve

