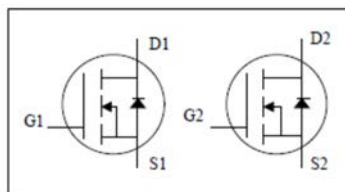
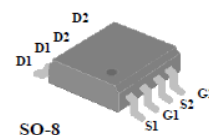


- Simple Drive Requirement
- Fast Switching Characteristic
- Low On-resistance
- RoHS Compliant & Halogen-Free



BV_{DS}	30V
$R_{DS(ON)}$	7.66m Ω
I_D	11A



Description

KE9206 is from Kingeavy innovated design and silicon process technology to achieve the lowest possible on- resistance and fast switching performance. It provides the designer with an extreme efficient device for use in a wide range of power applications

Absolute Maximum Ratings@ $T_J=25^{\circ}\text{C}$ (unless otherwise specified)

Symbol	Parameter	Rating	Units
V_{DS}	Drain-Source Voltage	30	V
V_{GS}	Gate-Source Voltage	± 20	V
$I_D@T_A=25^{\circ}\text{C}$	Drain Current, $V_{GS} @ 10V_3$	11	A
$I_D@T_A=70^{\circ}\text{C}$	Drain Current, $V_{GS} @ 10V_3$	9	A
I_{DM}	Pulsed Drain Current ¹	40	A
$P_D@T_A=25^{\circ}\text{C}$	Total Power Dissipation	2	W
EAS	Single Pulse Avalanche Energy ⁴	7.2	mJ
T_{STG}	Storage Temperature Range	-55 to 150	$^{\circ}\text{C}$
T_J	Operating Junction Temperature Range	-55 to 150	$^{\circ}\text{C}$

Thermal Data

Symbol	Parameter	Value	Unit
Rthj-a	Maximum Thermal Resistance, Junction-ambient ³	62.5	$^{\circ}\text{C}/\text{W}$

Electrical Characteristics@T_j=25 °C(unless otherwise specified)

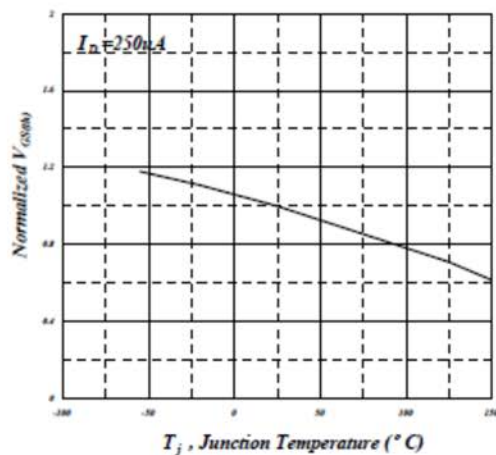
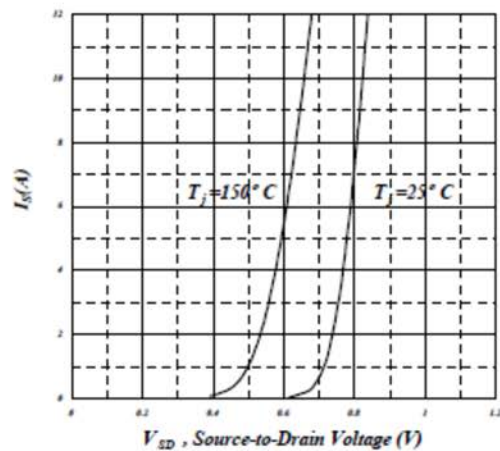
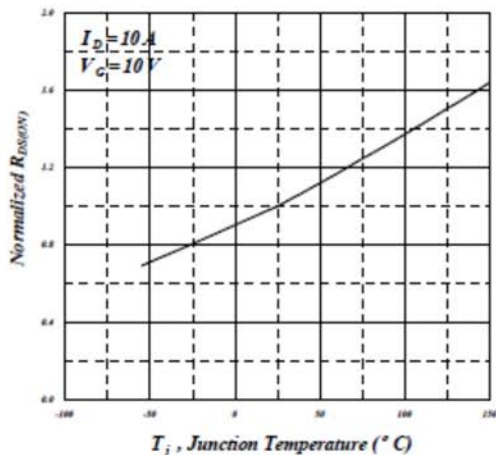
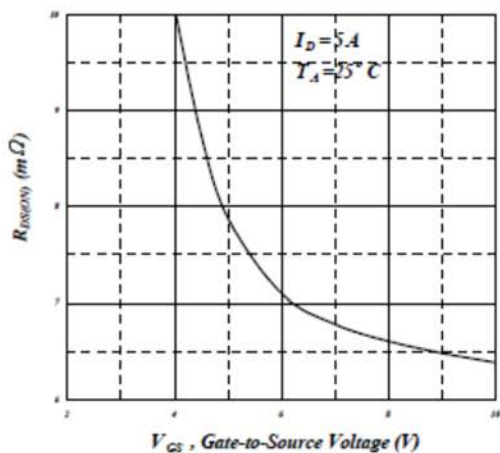
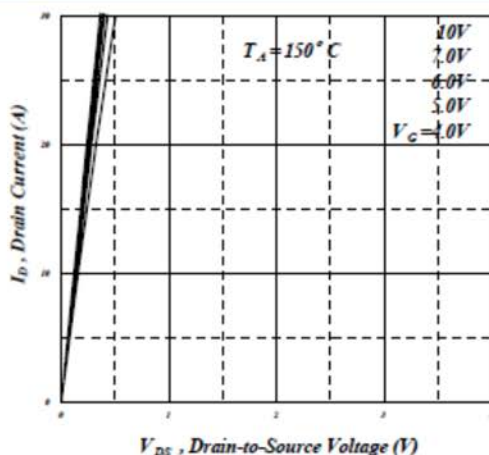
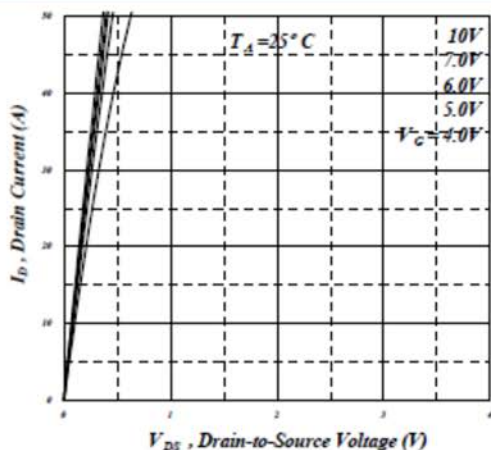
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
B _{VDSS}	Drain-Source Breakdown Voltage	V _{GS} =0V, I _D =250uA	30	-	-	V
R _{DS(ON)}	Static Drain-Source On-Resistance ²	V _{GS} =10V, I _D =10A	-	7.7	8.4	mΩ
		V _{GS} =4.5V, I _D =5A	-	12.1	15	mΩ
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =1mA	1	-	2.2	V
g _{fs}	Forward Transconductance	V _{DS} =10V, I _D =5A	-	40	-	S
I _{DSS}	Drain-Source Leakage Current	V _{DS} =24V, V _{GS} =0V	-	-	10	uA
I _{GSS}	Gate-Source Leakage	V _{GS} =±20V, V _{DS} =0V	-	-	±100	nA
Q _g	Total Gate Charge	I _D =5A	-	14	22.4	nC
Q _{gs}	Gate-Source Charge	V _{DS} =15V	-	4.4	-	nC
Q _{gd}	Gate-Drain ("Miller") Charge	V _{GS} =4.5V	-	5.4	-	nC
t _{d(on)}	Turn-on Delay Time	V _{DS} =15V	-	9	-	ns
t _r	Rise Time	I _D =1A	-	8	-	ns
t _{d(off)}	Turn-off Delay Time	R _G =3.3Ω	-	29	-	ns
t _f	Fall Time	V _{GS} =10V	-	9	-	ns
C _{iss}	Input Capacitance	V _{GS} =0V	-	1530	2448	pF
C _{oss}	Output Capacitance	V _{DS} =15V	-	225	-	pF
C _{rss}	Reverse Transfer Capacitance	f=1.0MHz	-	160	-	pF
R _g	Gate Resistance	f=1.0MHz	-	2.5	5	Ω

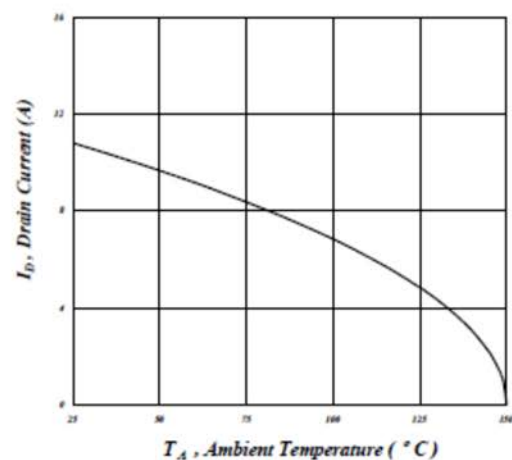
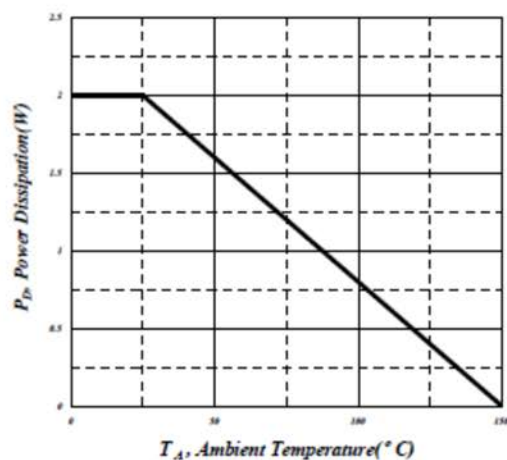
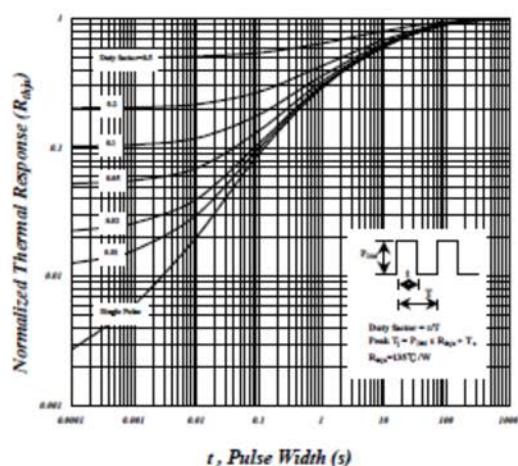
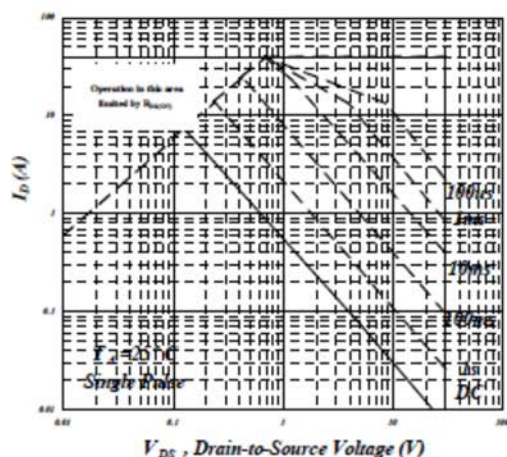
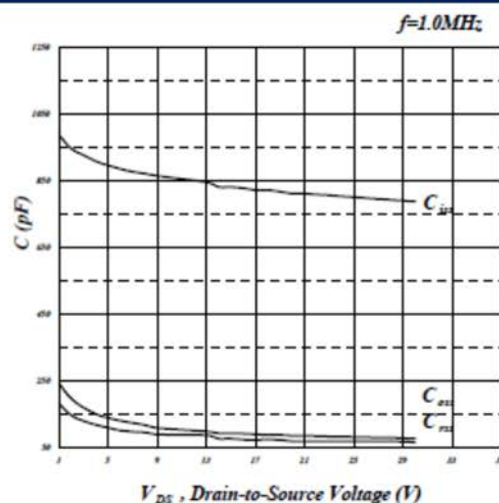
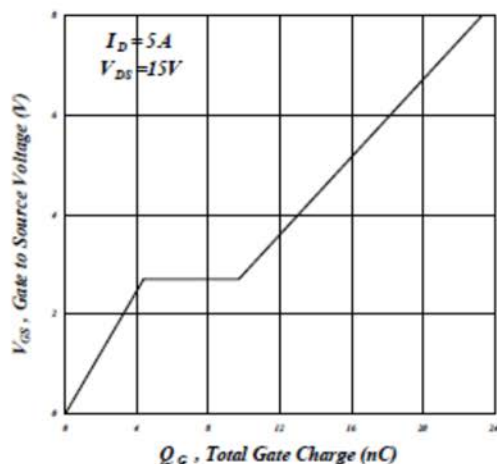
Source-Drain Diode

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
V _{SD}	Forward On Voltage ²	I _S =1.7A, V _{GS} =0V	-	-	1.2	V
t _{rr}	Reverse Recovery Time	I _S =10A, V _{GS} =0V	-	11	-	ns
Q _{rr}	Reverse Recovery Charge	dI/dt=100A/μs	-	4	-	nC

Notes:

- 1.Pulse width limited by Max. junction temperature.
- 2.Pulse test
- 3.Surface mounted on 1 in² copper pad of FR4 board, t ≤10sec ; 135°C/W when mounted on min. copper pad.
- 4.Starting T_j=25°C, V_{DD}=30V, L=0.1mH, R_G=25Ω



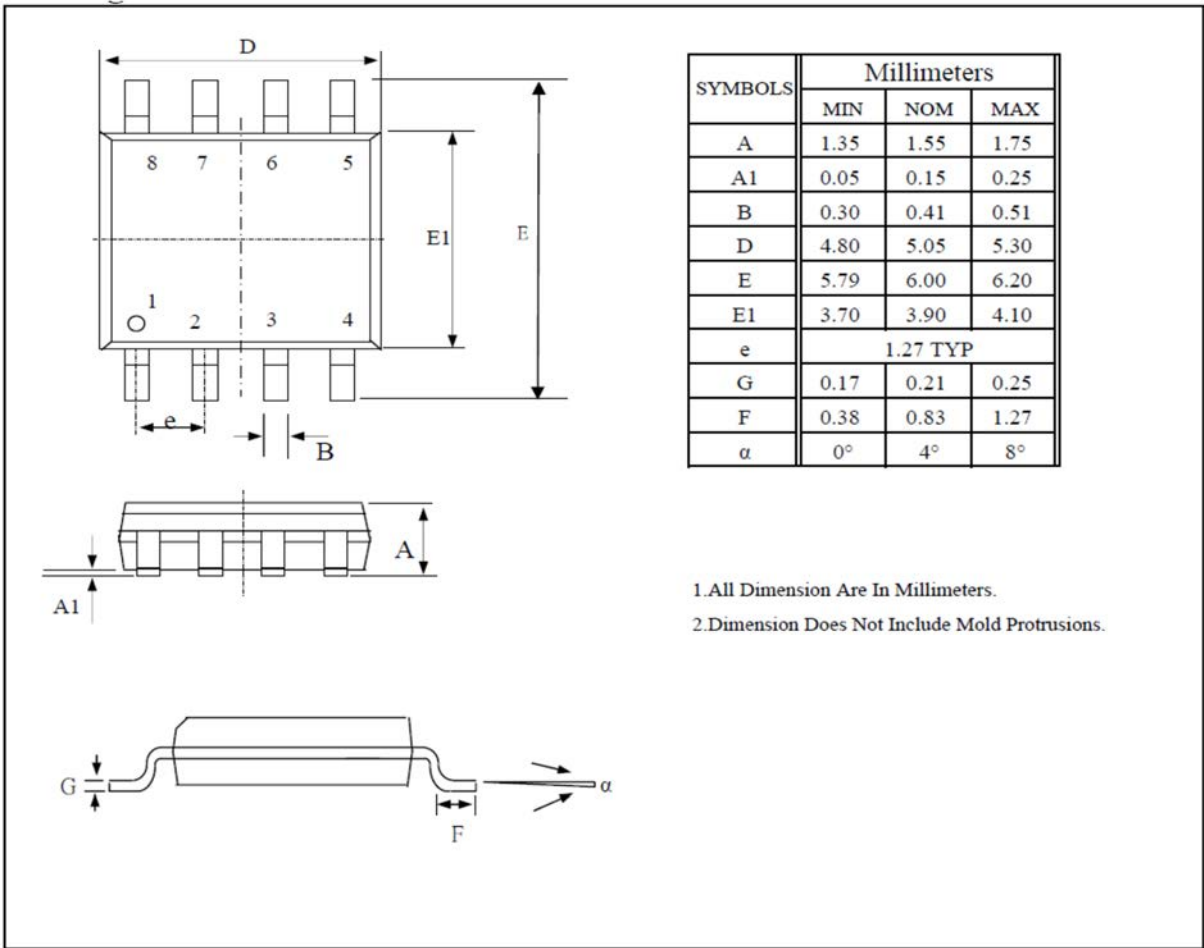


Marking Information



Package	SOIC-8	
XXXXPP	Part Number	
Y	Year	0-9,A-Z : E=2019, F=2020
WW	Weeks	Ex.2019 -- 10/27=44weeks, 11/3=45weeks
FF	Wafer lot	
A	Serial	

Package Outline: SO-8



SO-8 FOOTPRINT:

