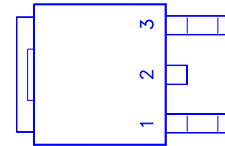
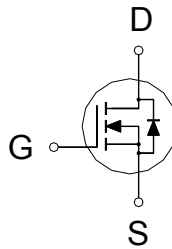


**PRODUCT SUMMARY**

$V_{(BR)DSS}$	$R_{DS(ON)}$	$I_D$
100V	26mΩ	50A



1. GATE
2. DRAIN
3. SOURCE

**ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25 °C Unless Otherwise Noted)**

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMITS	UNITS
Drain-Source Voltage		$V_{DS}$	100	V
Gate-Source Voltage		$V_{GS}$	±20	V
Continuous Drain Current	T <sub>C</sub> = 25 °C	$I_D$	50	A
	T <sub>C</sub> = 100 °C		35.5	
Pulsed Drain Current <sup>1</sup>		$I_{DM}$	150	
Avalanche Current		$I_{AS}$	53	A
Avalanche Energy	L = 0.1mH	$E_{AS}$	140	mJ
Power Dissipation	T <sub>C</sub> = 25 °C	$P_D$	128	W
	T <sub>C</sub> = 100 °C		51	
Operating Junction & Storage Temperature Range		T <sub>j</sub> , T <sub>stg</sub>	-55 to 150	°C

**THERMAL RESISTANCE RATINGS**

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNITS
Junction-to-Case	$R_{θJC}$		0.97	°C / W
Junction-to-Ambient	$R_{θJA}$		62.5	

<sup>1</sup>Pulse width limited by maximum junction temperature.

**ELECTRICAL CHARACTERISTICS (T<sub>J</sub> = 25 °C, Unless Otherwise Noted)**

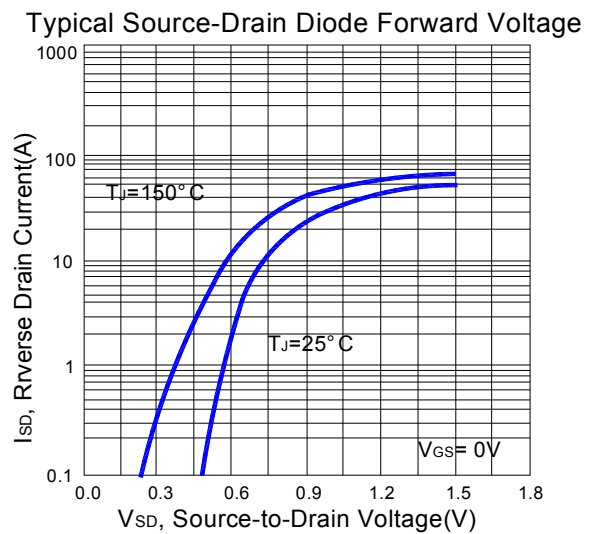
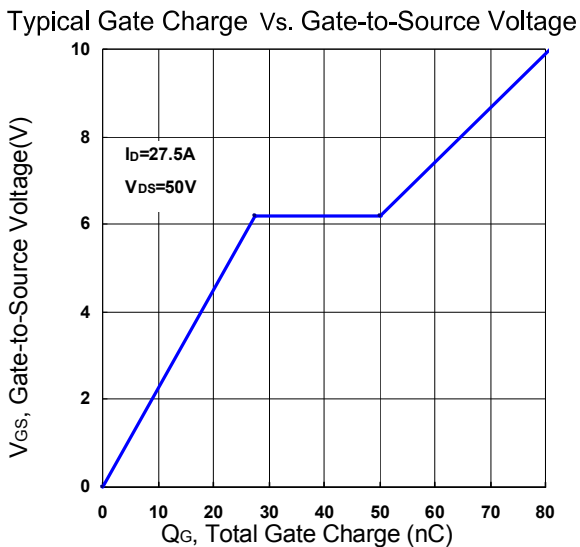
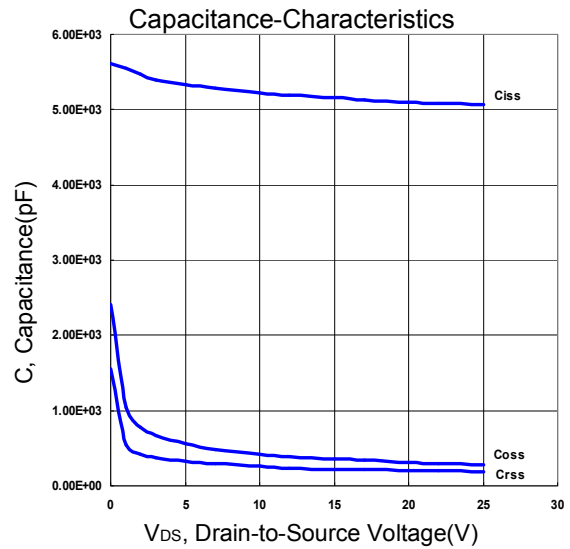
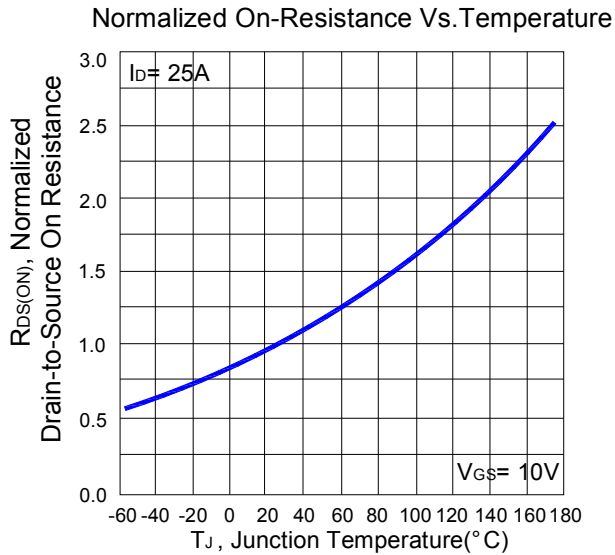
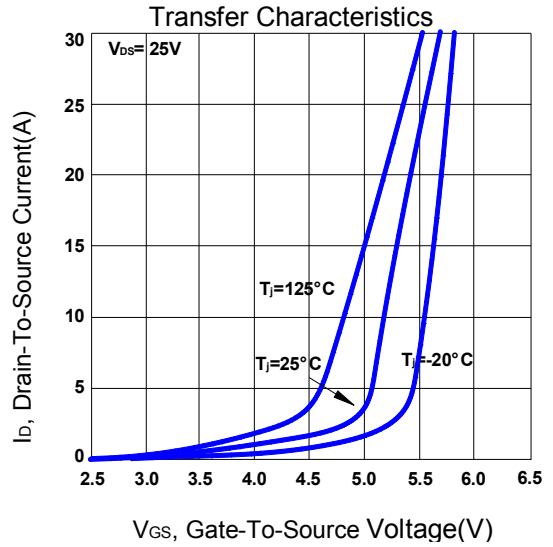
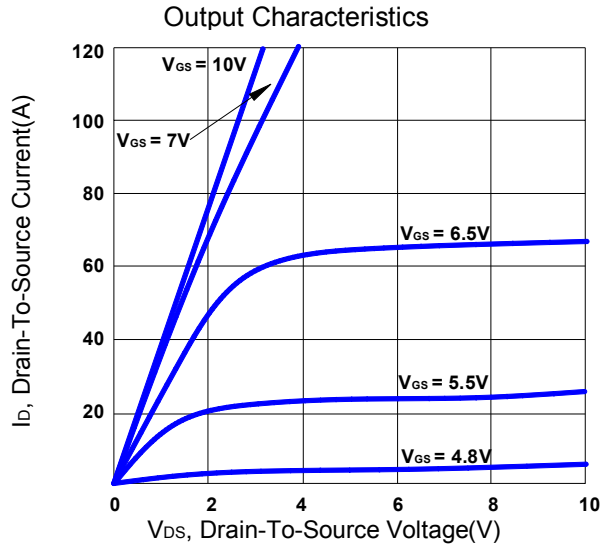
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
<b>STATIC</b>						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	100			V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	1.7	2.5	3.4	
Gate-Body Leakage	$I_{GSS}$	$V_{DS} = 0V, V_{GS} = \pm 20V$			±250	nA
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 80V, V_{GS} = 0V$			1	μA
		$V_{DS} = 80V, V_{GS} = 0V, T_J = 125\text{ °C}$			10	
On-State Drain Current <sup>1</sup>	$I_{D(ON)}$	$V_{DS} = 10V, V_{GS} = 10V$	150			A

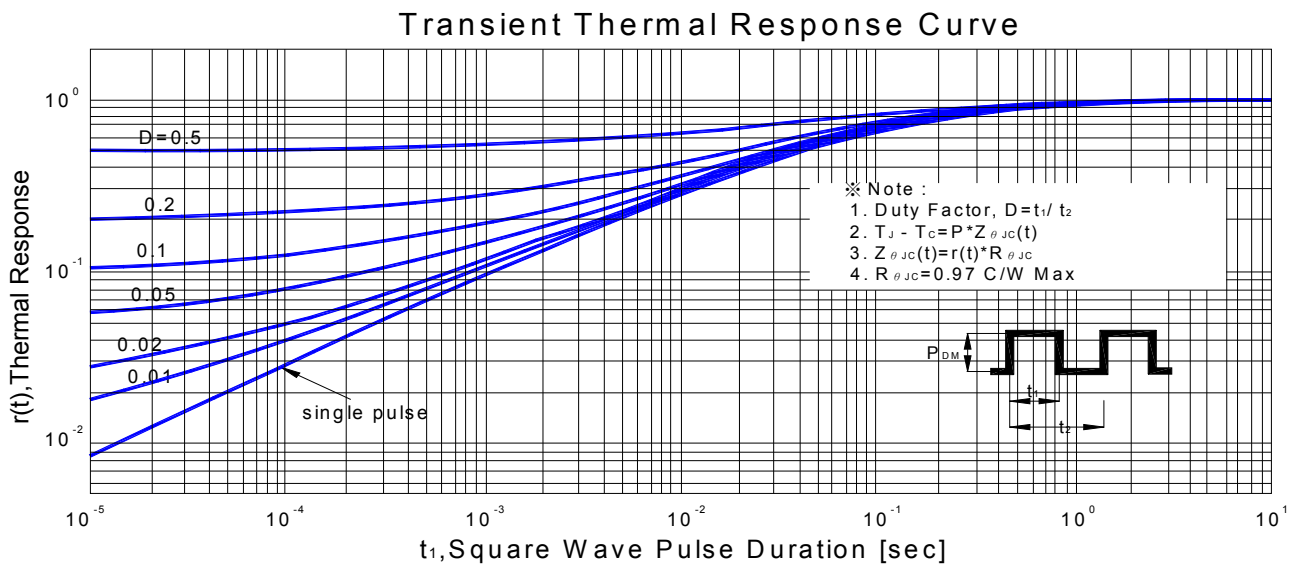
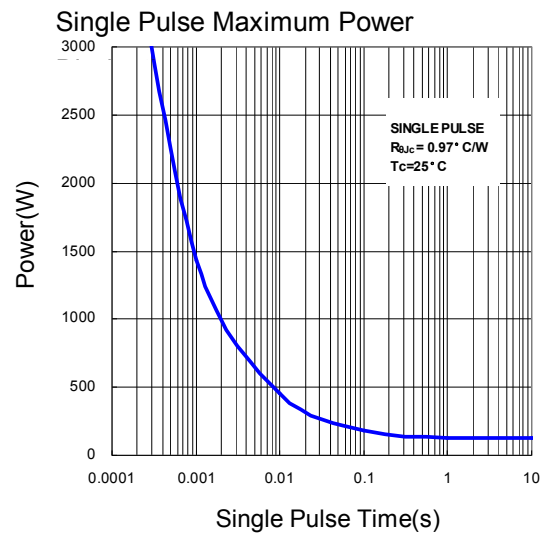
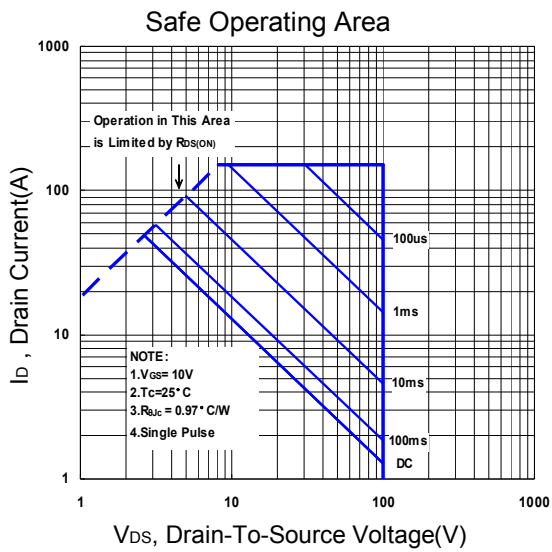
Drain-Source-On-State Resistance <sup>1</sup>	$R_{DS(ON)}$	$V_{GS} = 10V, I_D = 25A$		21	26	mΩ
Forward Transconductance <sup>1</sup>	$g_{fs}$	$V_{DS} = 40V, I_D = 25A$		38		S
<b>DYNAMIC</b>						
Input Capacitance	$C_{iss}$	$V_{GS} = 0V, V_{DS} = 25V, f = 1MHz$		5000		pF
Output Capacitance	$C_{oss}$			285		
Reverse Transfer Capacitance	$C_{rss}$			189		
Total Gate Charge <sup>2</sup>	$Q_g$	$V_{DS} = 80V, V_{GS} = 10V, I_D = 27.5A$		80		nC
Gate-Source Charge <sup>2</sup>	$Q_{gs}$			28		
Gate-Drain Charge <sup>2</sup>	$Q_{gd}$			23		
Gate Resistance	$R_g$	$V_{GS} = 15mV, V_{DS} = 0V, f = 1MHz$		2		Ω
Turn-On Delay Time <sup>2</sup>	$t_{d(on)}$	$V_{DD} = 50V, I_D \cong 25A, V_{GS} = 10V, R_{GS} = 25\Omega$		25		nS
Rise Time <sup>2</sup>	$t_r$			250		
Turn-Off Delay Time <sup>2</sup>	$t_{d(off)}$			110		
Fall Time <sup>2</sup>	$t_f$			140		
<b>SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS (T<sub>J</sub> = 25 °C)</b>						
Continuous Current	$I_S$				50	A
Forward Voltage <sup>1</sup>	$V_{SD}$	$I_F = 25A, V_{GS} = 0V$			1.5	V
Reverse Recovery Time	$t_{rr}$	$I_F = 25A, di_F/dt = 100A / \mu S$		100		nS
Reverse Recovery Charge	$Q_{rr}$			380		nC

<sup>1</sup>Pulse test : Pulse Width ≤ 300 μsec, Duty Cycle ≤ 2%.

<sup>2</sup>Independent of operating temperature.

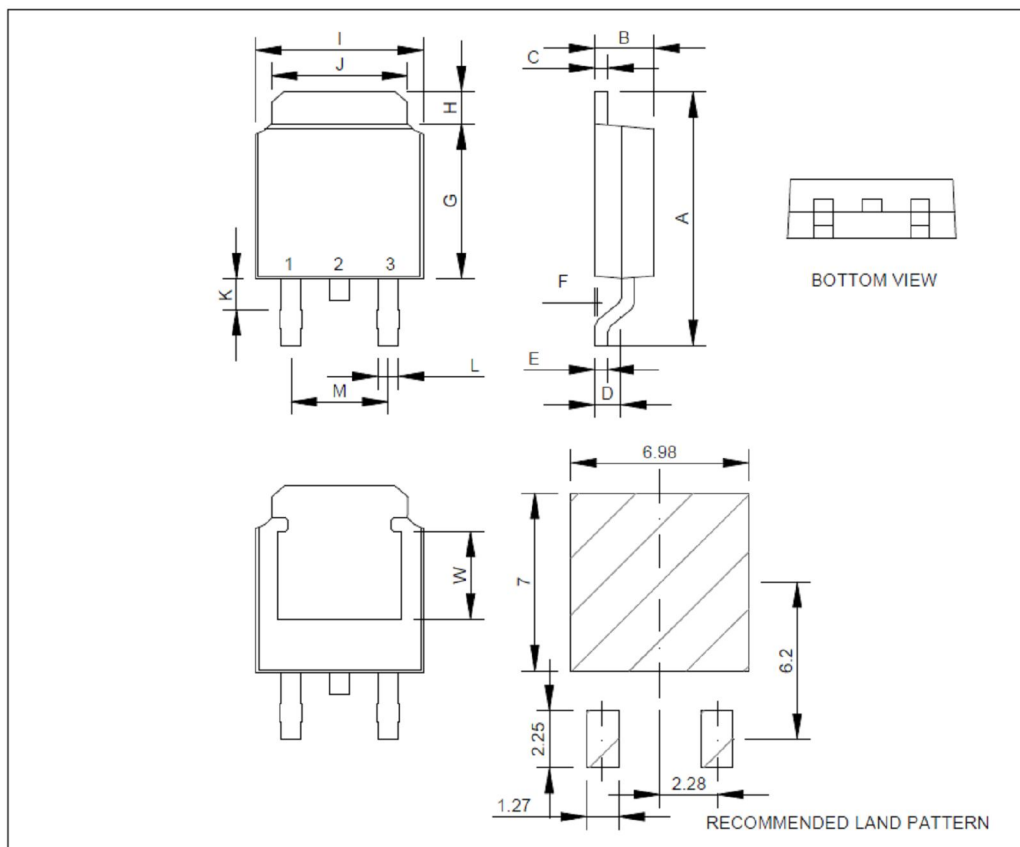
**REMARK: THE PRODUCT MARKED WITH “P2610ADG”, DATE CODE or LOT #**





**TO-252 (DPAK) MECHANICAL DATA**

Dimension	mm			Dimension	mm		
	Min.	Typ.	Max.		Min.	Typ.	Max.
A	8.9	9.5	10.4	H	0.8	1.27	2.03
B	2.19	2.3	2.435	I	6.35	6.6	6.8
C	0.35	0.5	0.65	J	4.8	5.34	5.5
D	0.89		1.5	K	0.5		1.5
E	0.35		0.65	L	0.4	0.76	0.89
F	0.0		0.23	M	3.96		5.18
G	5.4		6.2	W	3.38	3.58	3.78



**TO-252 (DPAK) MECHANICAL DATA 散熱片**

Dimension	mm			Dimension	mm		
	Min.	Typ.	Max.		Min.	Typ.	Max.
S	4.57	5.249	5.6	U	1.4		3
T	3.81	4.064	5	V	0.95		1.1

