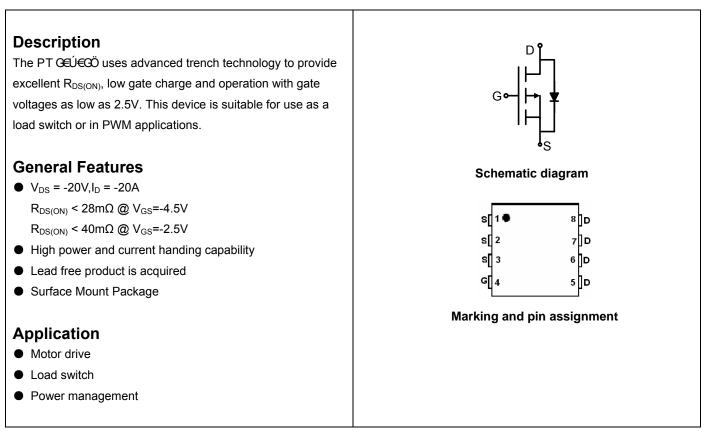


P-Channel Enhancement Mode Power MOSFET



Package Marking And Ordering Information

Device Marking	Device	Device Package	Reel Size	Tape width	Quantity
PT G€Ú€GÖ/₩₩₩₩	₩₩₽T G€Ú€GÖ	ÖØÞÍÝÎËÌŠ	Ø330mm	12mm	2500 units

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

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	Vds	-20	V
Gate-Source Voltage	Vgs	±12	V
Drain Current-Continuous	I _D	-20	A
Drain Current-Pulsed (Note 1)	I _{DM}	-60	A
Maximum Power Dissipation	PD	3.1	W
Operating Junction and Storage Temperature Range	T _J ,T _{STG}	-55 To 150	°C

Thermal Characteristic

Thermal Desistance lunction to Ambient (Note 2)	D	40	°C AA/	
I hermal Resistance, Junction-to-Ambient (1982)	R _{0JA}	42	°C/W	

Electrical Characteristics (T_A=25[°]Cunless otherwise noted)

Parameter	Symbol	Condition	Min	Тур	Мах	Unit
Off Characteristics						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V I _D =-250µA	-20	-	-	V





				r		
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-20V,V _{GS} =0V	-	-	-1	μA
Gate-Body Leakage Current	I _{GSS}	V_{GS} =±12V, V_{DS} =0V	-	-	±100	nA
On Characteristics (Note 3)						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$, $I_{D}=-250\mu A$	-0.5	-0.7	-1.4	V
Drain-Source On-State Resistance	Б	V _{GS} =-4.5V, I _D =-6A	-	22	28	mΩ
Drain-Source On-State Resistance	R _{DS(ON)}	V _{GS} =-2.5V, I _D =-5A		32	40	mΩ
Forward Transconductance	g fs	V _{DS} =-15V,I _D =-6A	-	17	-	S
Dynamic Characteristics (Note4)				•		
Input Capacitance	Clss	1/2 = 101/1/2 = 01/2	-	2100	-	PF
Output Capacitance	C _{oss}	- V _{DS} =-10V,V _{GS} =0V, F=1.0MHz	-	498	-	PF
Reverse Transfer Capacitance	Crss	- I - I.OIVII 12	-	300	-	PF
Switching Characteristics (Note 4)	·			•		
Turn-on Delay Time	t _{d(on)}		-	25	-	nS
Turn-on Rise Time	tr	V_{DD} =-10V, R _L =10 Ω ,	-	30	-	nS
Turn-Off Delay Time	t _{d(off)}	V_{GS} =-4.5V,R _{GEN} =6 Ω	-	70	-	nS
Turn-Off Fall Time	t _f		-	50	-	nS
Total Gate Charge	Qg		-	17	-	nC
Gate-Source Charge	Q _{gs}	V _{DS} =-10V,I _D =-6A,V _{GS} =-4.5V	-	4.1	-	nC
Gate-Drain Charge	Q _{gd}		-	4.3	-	nC
Drain-Source Diode Characteristics			•	•	•	
Diode Forward Voltage (Note 3)	V _{SD}	V _{GS} =0V,I _S =-20A	-	-	-1.2	V

Notes:

- 1. Repetitive Rating: Pulse width limited by maximum junction temperature.
- **2.** Surface Mounted on FR4 Board, t \leq 10 sec.
- **3.** Pulse Test: Pulse Width \leq 300µs, Duty Cycle \leq 2%.
- 4. Guaranteed by design, not subject to production



Typical Electrical and Thermal Characteristics

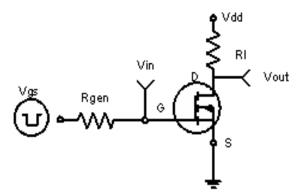
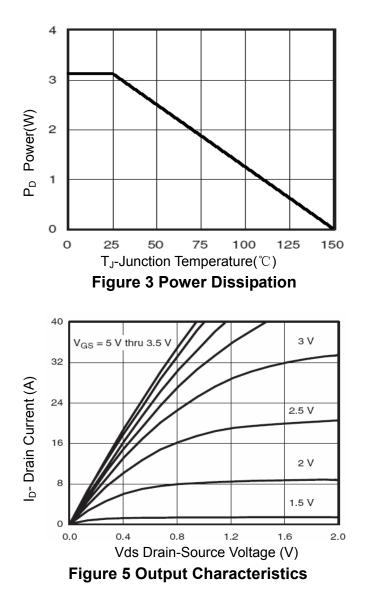
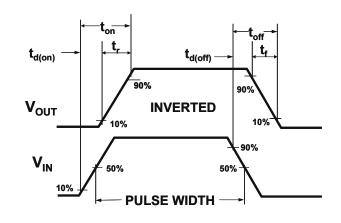
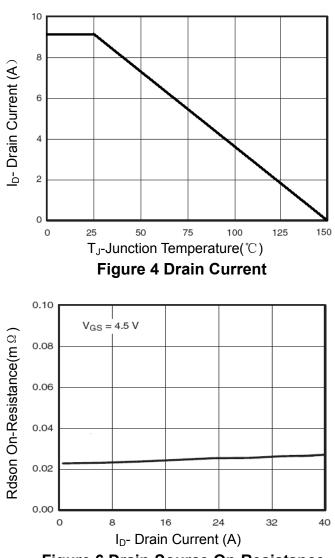


Figure 1 Switching Test Circuit



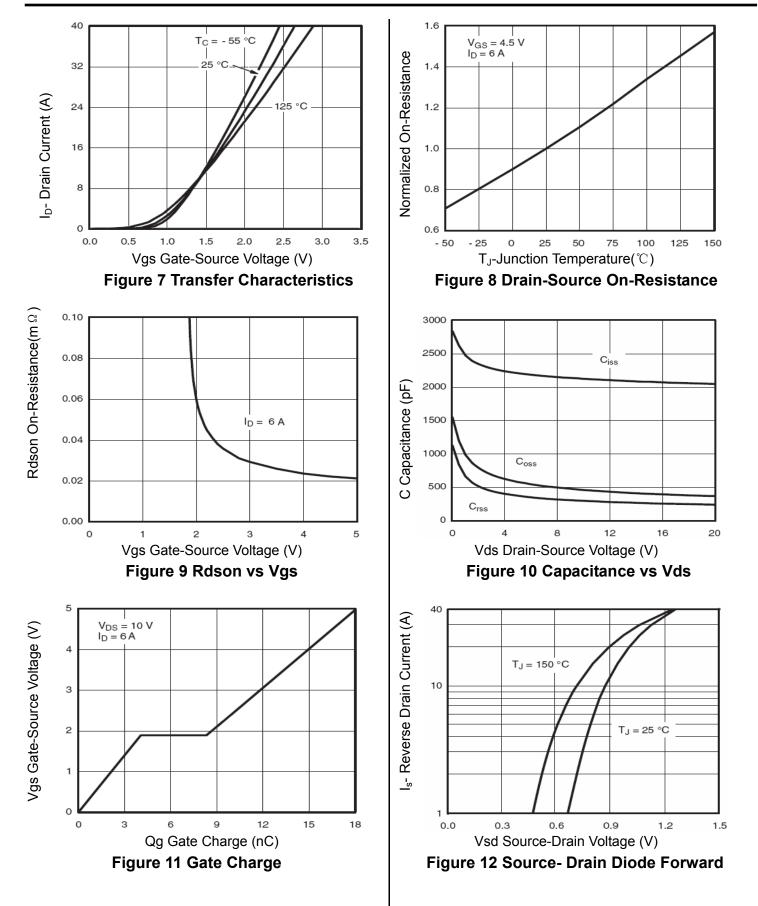








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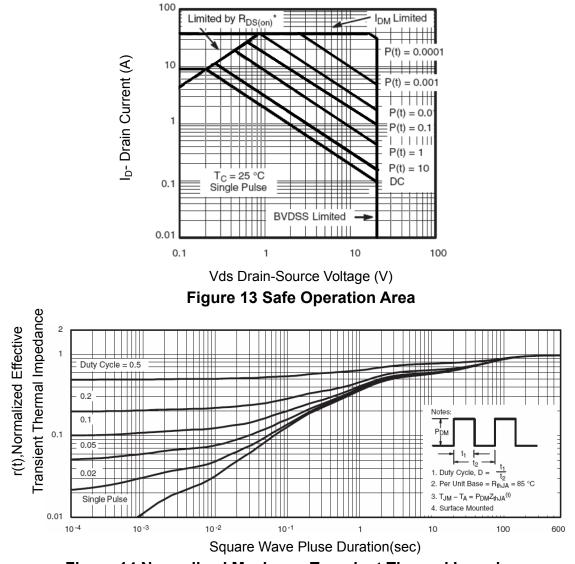
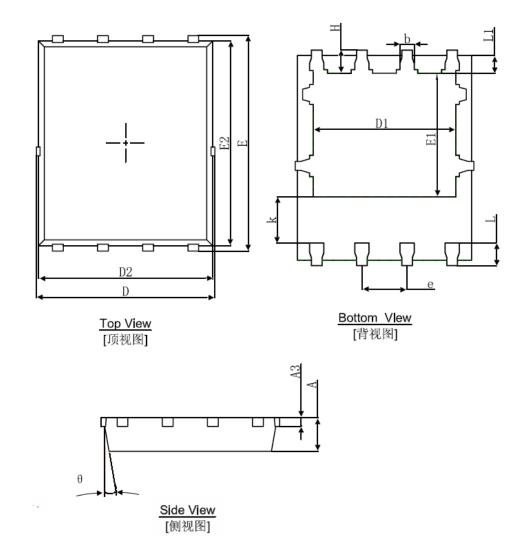


Figure 14 Normalized Maximum Transient Thermal Impedance



DFN5X6-8L Package Information



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Symbol	Dimensions	In Millimeters	Dimensions In Inches		
Symbol	Min.	Max.	Min.	Max.	
А	0.900	1.000	0.035	0.039	
A3	0.254	REF.	0.010	REF.	
D	4.944	5.096	0.195	0.201	
E	5.974	6.126	0.235	0.241	
D1	3.910	4.110	0.154	0.162	
E1	3.375	3.575	0.133	0.141	
D2	4.824	4.976	0.190	0.196	
E2	5.674	5.826	0.223	0.229	
k	1.190	1.390	0.047	0.055	
b	0.350	0.450	0.014	0.018	
е	1.270	TYP.	0.050	TYP.	
L	0.559	0.711	0.022	0.028	
L1	0.424	0.576	0.017	0.023	
Н	0.574	0.726	0.023	0.029	
θ	8°	12°	8°	12°	



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