5□ / Descriptions

SOT23-6 P MOS

P- CHANNEL MOSFET in a SOT23-6 Plastic Package.

¤ / Features

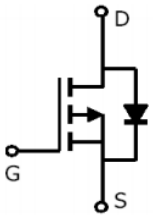
Ultra Low on-resistance. fast switching.Low on voltage,HF product.

Ð / Applications

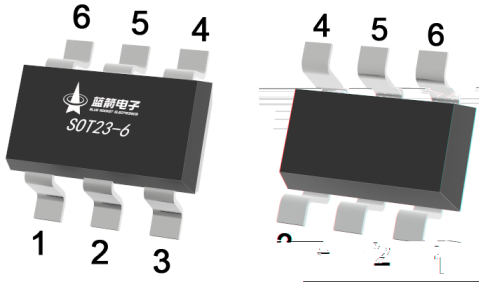
PWM

PWM application & Load switch

W□ / Equivalent Circuit



/ Pinning



PIN1 D PIN 2 D PIN 3 G PIN 4 S PIN 5 D PIN 6 D

,MV□ / Marking

Marking	5P06 ****

ad / Absolute Maximum Ratings(Ta=25;)

Parameter		Symbol	Rating	Unit
Drain–Source Voltage		V_{DSS}	-60	V
Gate–Body Leakage Voltage		V_{GSS}	±20	V
Drain Current - Continuous		I_D	-5	A
Power Dissipation (Surface Mounted on FR4 Board, t 0 10 sec.)		P_D	1.5	W
Operating and Storage Temperature Range		T_J,T_{STG}	-55 150	
Maximum Junction-to-Ambient	t 0 10s	$R_{©JA}$	118.6	/W
Maximum Junction-to-Ambient	Steady-State		161.6	/W
Maximum Junction-to-Lead	Steady-State	$R_{©JL}$	83.3	/W

4 / Electrical Characteristics(Ta=25;)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0V I_D=-250□A	-60	-63		V
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=-250□A	-1	-1.5	-2.5	V
Static Drain–Source On–Resistance	$R_{DS(on)}$	V_{GS}=-10V I_D=-2A		84	100	m□
		V_{GS}=-4.5V I_D=-1A		103	125	m□
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-60V V_{GS}=0V			-1.0	□A
Gate–Body Leakage.	I_{GSS}	V_{GS}=-20V			-100	nA
		V_{GS}=20V			100	nA
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=-1A T_J=25			-1.2	V
Input Capacitance	C_{iss}	V_{DS}=-25V V_{GS}=0V f=1.0MHz		885		pF
Output Capacitance	C_{oss}			90		
Reverse Transfer Capacitance	C_{rss}			64		
Total Gate Charge	Q_g(-10V)	V_{DS}=-30V V_{GS}=-10.0V I_D=-5A		25		nC
Total Gate Charge	Q_g(-4.5V)			9.6		
Gate-to-Source Charge	Q_{gs}			3		
Gate-to-Drain Charge	Q_{gd}			7		
Turn–On Delay Time	$t_{d(on)}$	V_{DD}=-30V V_{GS}=-10V R_L=7.5□ R_G=3□		8		ns
Turn–On Rise Time	t_r			4		
Turn–Off Delay Time	$t_{d(off)}$			32		
Turn–Off Fall Time	t_f			7		

đ□ / Electrical Characteristic Curve

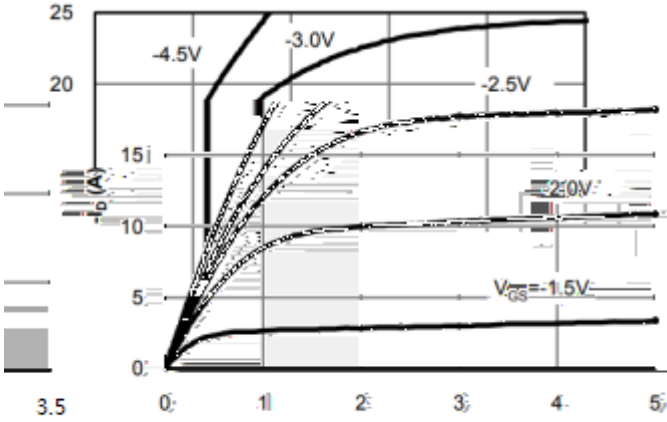


Figure 1: On-Region Characteristics

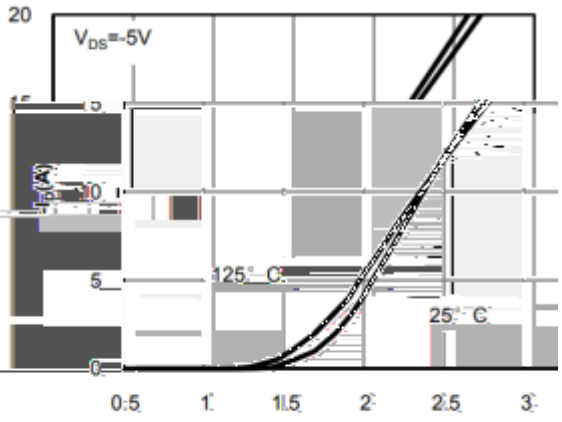


Figure 2: Transfer Characteristics

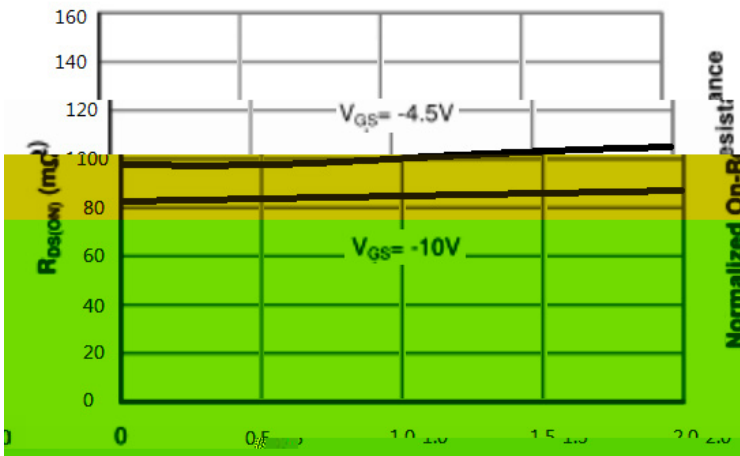


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

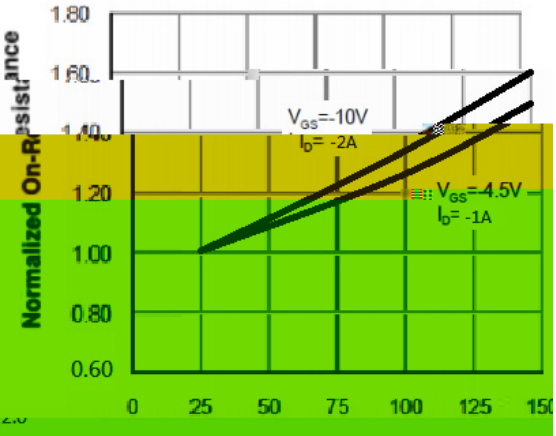


Figure 4: On-Resistance vs. Junction Temperature

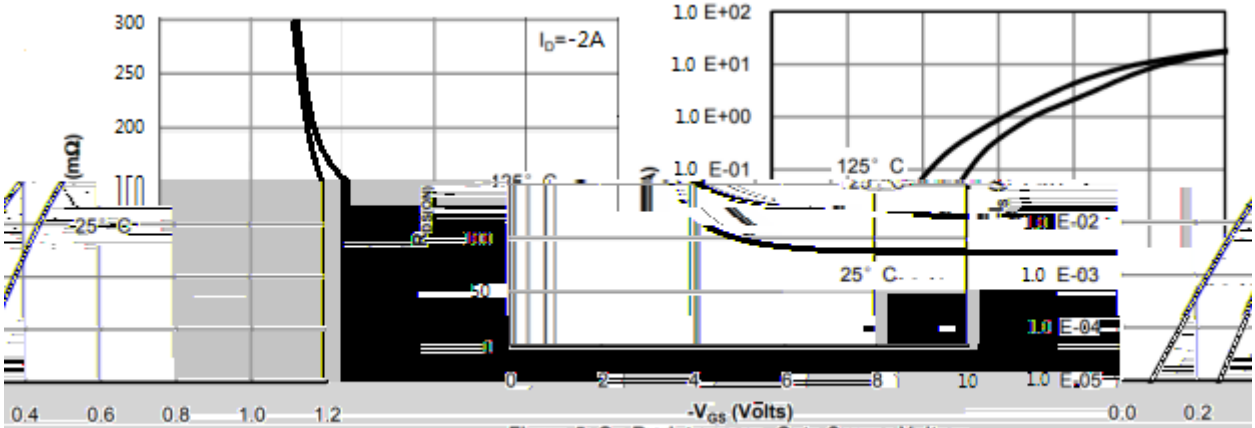
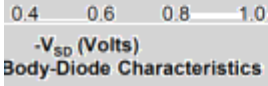


Figure 5: On-Resistance vs. Gate-Source Voltage



Body-Diode Characteristics

Figure 6:

đ□ / Electrical Characteristic Curve

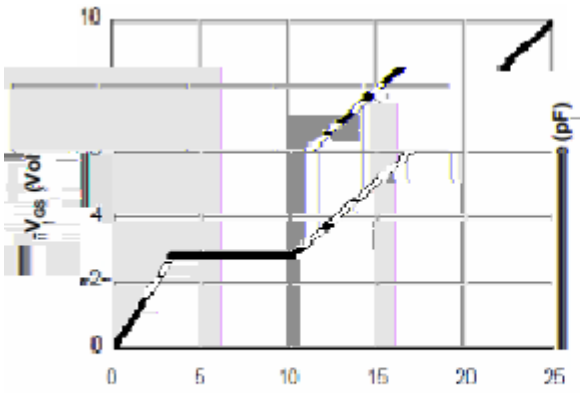


Figure 7: Gate-Charge Characteristics

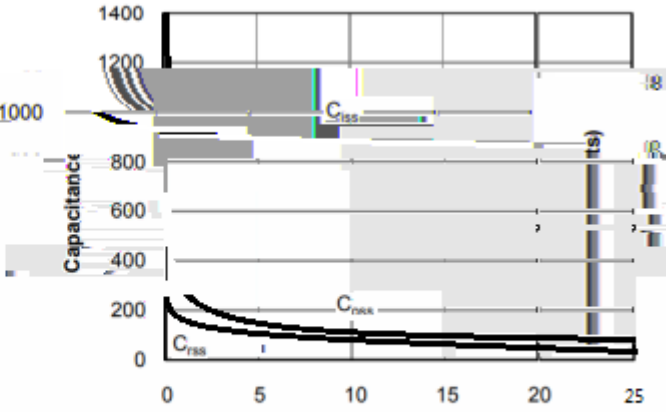


Figure 8: Capacitance Characteristics

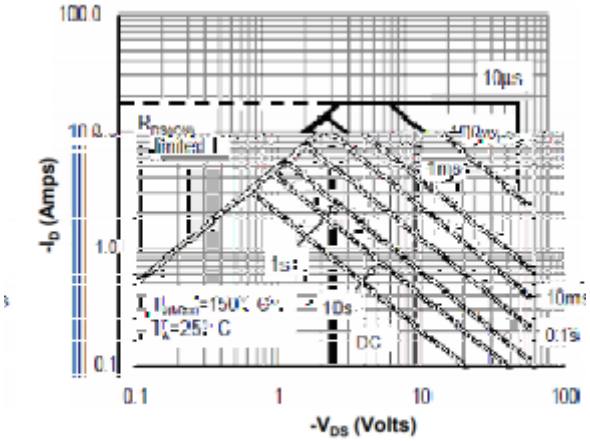


Figure 9: Maximum Forward Biased Safe Operating Area

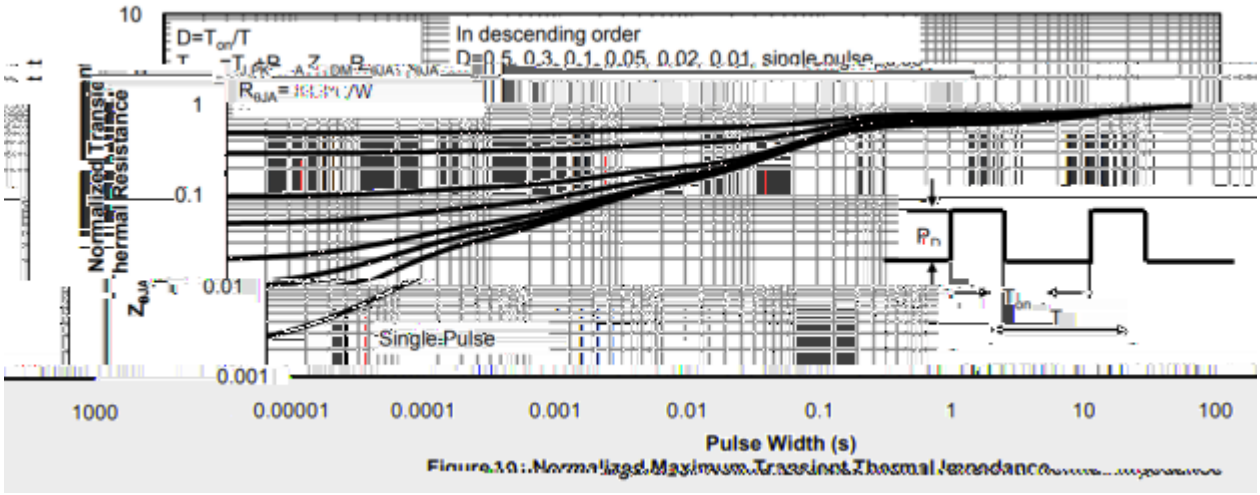
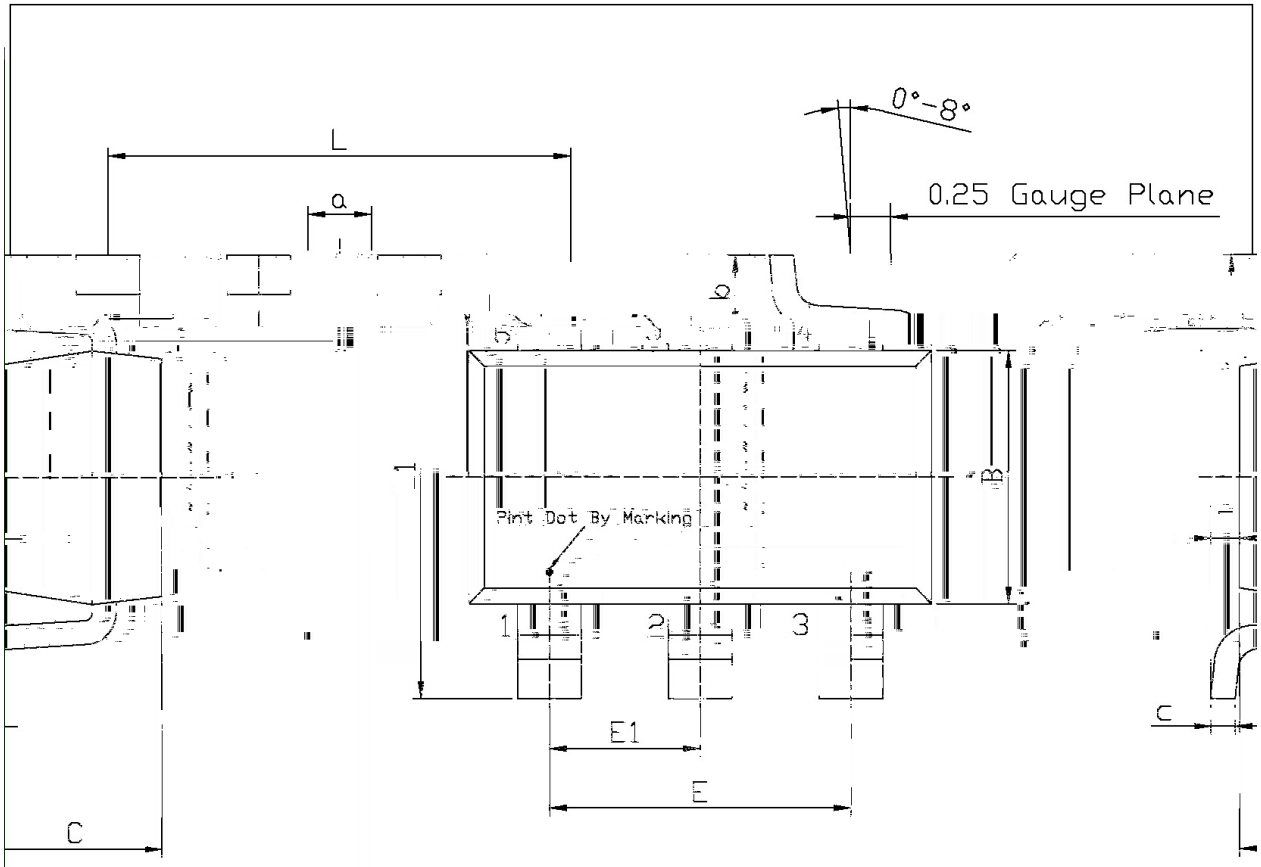


Figure 10: Normalized Maximum Transient Thermal Impedance

封装尺寸 / Package Dimensions



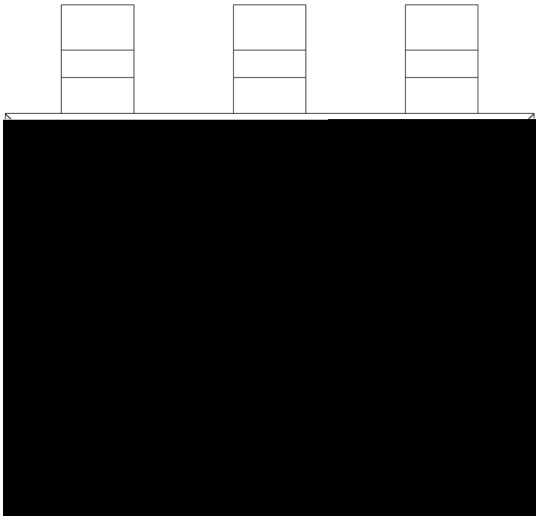
Unit: mm

Millimeters
Max
1.05
0.50
0.20
0.55
0.15

Symbol	Dimensions In Millimeters		Symbol	Dimensions In
	Min	Max		Min
L	2.82	3.02	E1	0.85
B	1.50	1.70	a	0.35
C	0.90	1.30	c	0.10
L1	2.60	3.00	b	0.35
E	1.80	2.00	F	0

SOT23-6

,My□ / Marking Instructions



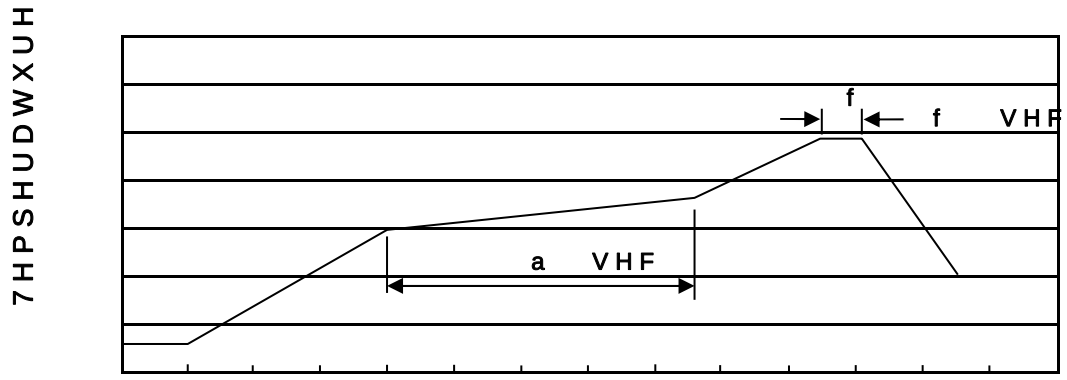
5P06:

****:

Note:

5P06	Product Type
****:	Company Code

W Dt (x/) / [illegible]



7LPH VHF

				Note:	
1	150	180	60 90sec;	1.Preheating:150~180	, Time:60~90sec.
2	245±5		5±0.5sec;	2.Peak Temp.:245±5	, Duration:5±0.5sec.
3		2 10	/sec.	3. Cooling Speed: 2~10	/sec.

D/C p / Resistance to Soldering Heat Test Conditions

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec

G P / Packaging SPEC.

/ REEL

Package Type 7>û ~ E	Units ;>û ¦H					Dimension ;>û p . (unit Æmm³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box×	Outer Box1ç
SOT23-5/6	3,000	10	30,000	4	120,000	7Ø T×8	210×205×205	445×230×435

y / Notices