SOT-23 ҂Ҍ Ь P ڏ ʃ ۧ Ƶ ٦

S- CHANNEL MOSFET in a SOT-23 Plastic Package.

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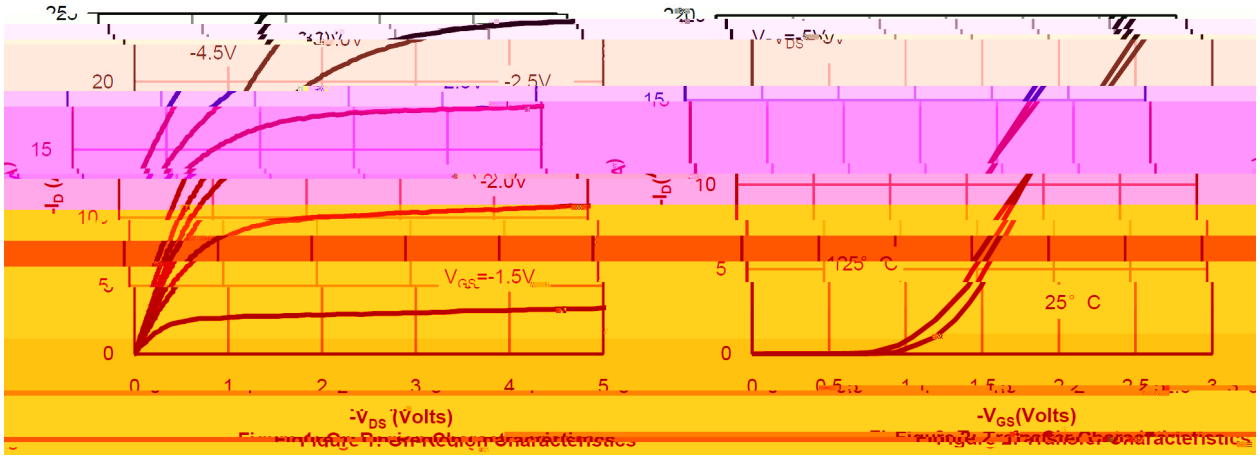
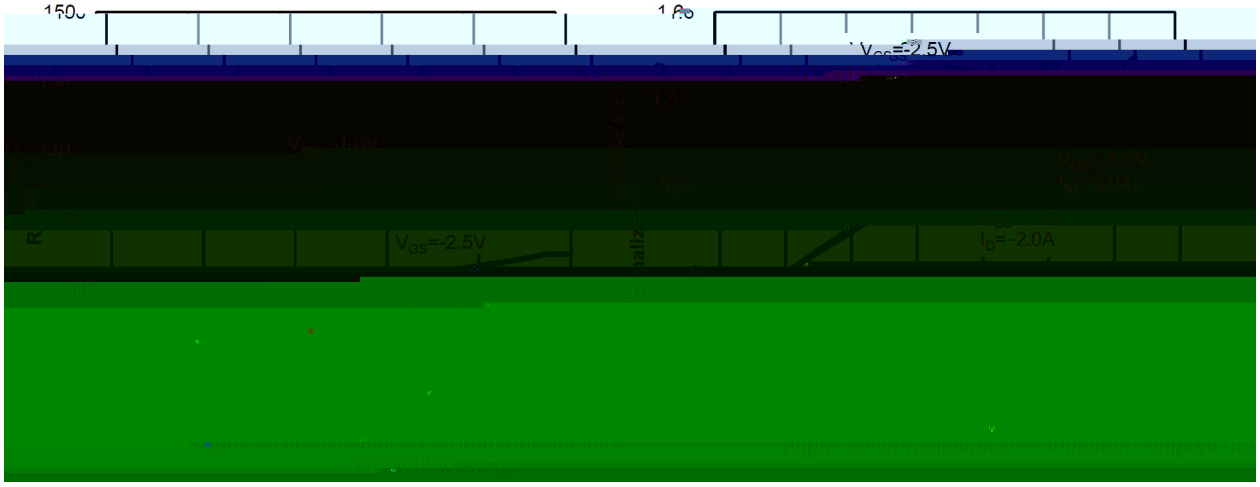
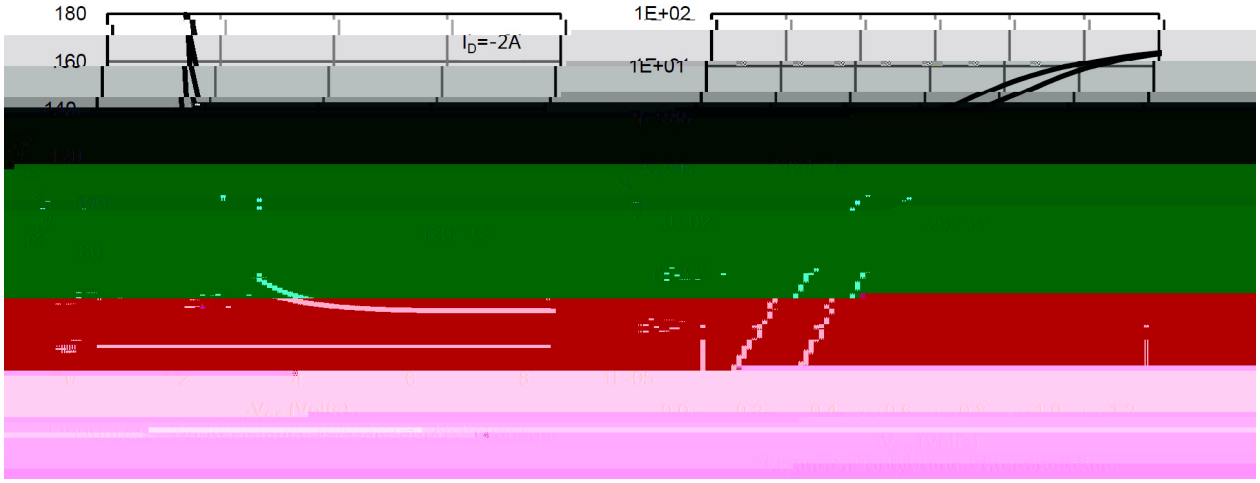
Ultra Low on-resistance. fast switching.Low on voltage, HF Product.

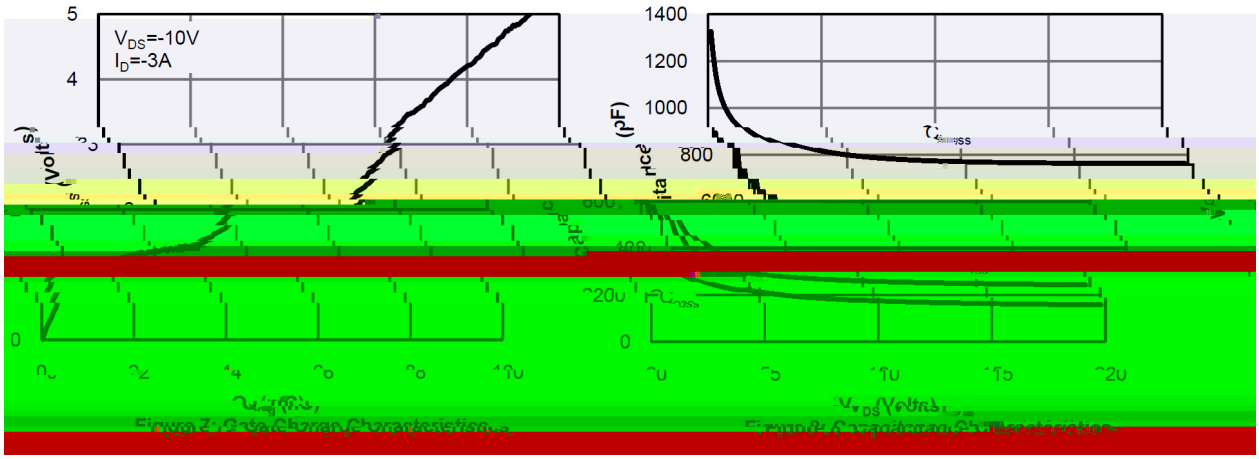
v ̈Ω Parameter		ϒ N Symbol	̈Ω Ö Rating	D Ч Unit
Drain–Source Voltage		V_{DSS}	-20	V
Gate–Body Leakage Voltage		V_{GSS}	±12	V
Drain Current – Continuous		I_D	-3	A
Pulsed Drain Current		I_{DM}	-15	A
Power Dissipation		P_D	1.4	W
Operating and Storage Temperature Range		T_J,T_{STG}	-55 150	
Maximum Junction-to-Ambient	t Ů 10s	$R_{\varsigma JA}$	90	Ņ/W
Maximum Junction-to-Ambient	Steady-State		125	Ņ/W
Maximum Junction-to-Lead	Steady-State	$R_{\varsigma JL}$	80	Ņ/W

v ̈Ω Parameter	ϒ N Symbol	╜ ; ˆ ţ Test Conditions	ώ ņ Ö Min	Ɛ ʒ Ö Typ	ώ ᶻ Ö Max	D Ч Unit
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0V I_D=-250μA	-20	-23		V
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=-250μA	-0.4		-1.0	V
Static Drain–Source On–Resistance	$R_{DS(on)}$	V_{GS}=-4.5V I_D=-2A		56	60	mΩ
		V_{GS}=-2.5V I_D=-2A		70	76	mΩ
		V_{GS}=-1.8V I_D=-2A		93	110	mΩ
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-20V V_{GS}=0V			-1.0	μA
Gate-Body leakage current	I_{GSS}	V_{GS}=±12V V_{DS}=0V			±100	nA
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=-1A T_J=25			-1.2	V
Gate resistance	R_g	f=1MHz		7.2		Ω
Input Capacitance	C_{iss}	V_{DS}=-10V V_{GS}=0V f=1.0MHz		760		pF
Output Capacitance	C_{oss}			170		
Reverse Transfer Capacitance	C_{rss}			230		
Total Gate Charge	Q_g	V_{DS}=-10V V_{GS}=-4.5V I_D=-3A		8.7		nC
Gate-to-Source Charge	Q_{gs}			1.5		
Gate-to-Drain Charge	Q_{gd}			2.3		
Turn–On Delay Time	$t_{d(on)}$	V_{DS}=-10V V_{GS}=-4.5V R_L=3.3Ω R_{GEN}=6Ω		7.3		ns
Turn–On Rise Time	t_r			25		
Turn–Off Delay Time	$t_{d(off)}$			54		
Turn–Off Fall Time	t_f			55		

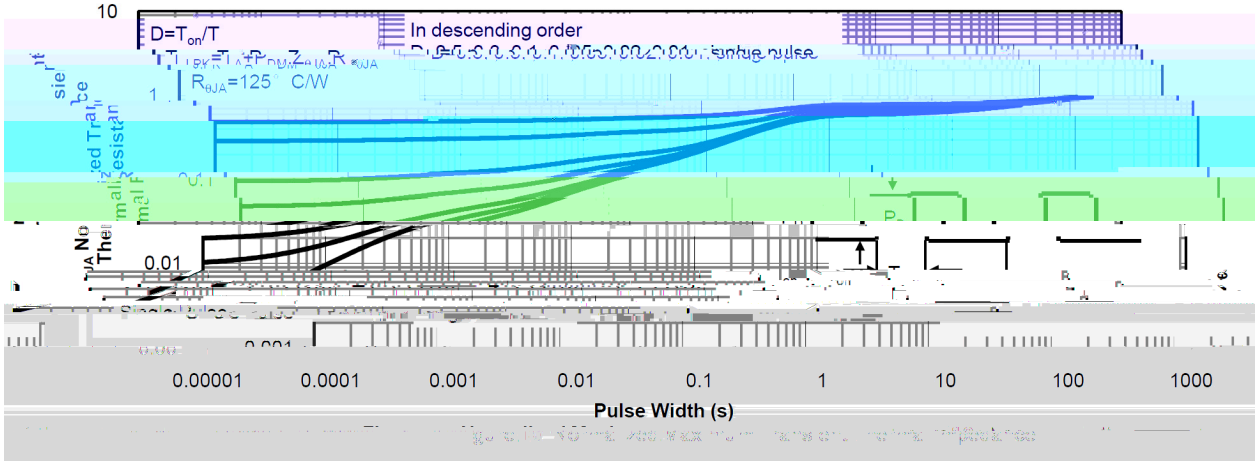

-4.5V
-2.5V
-2.0V
V_{GS}=-1.5V
-V_{DS} (Volts)
125° C
25° C
-V_{GS}(Volts)

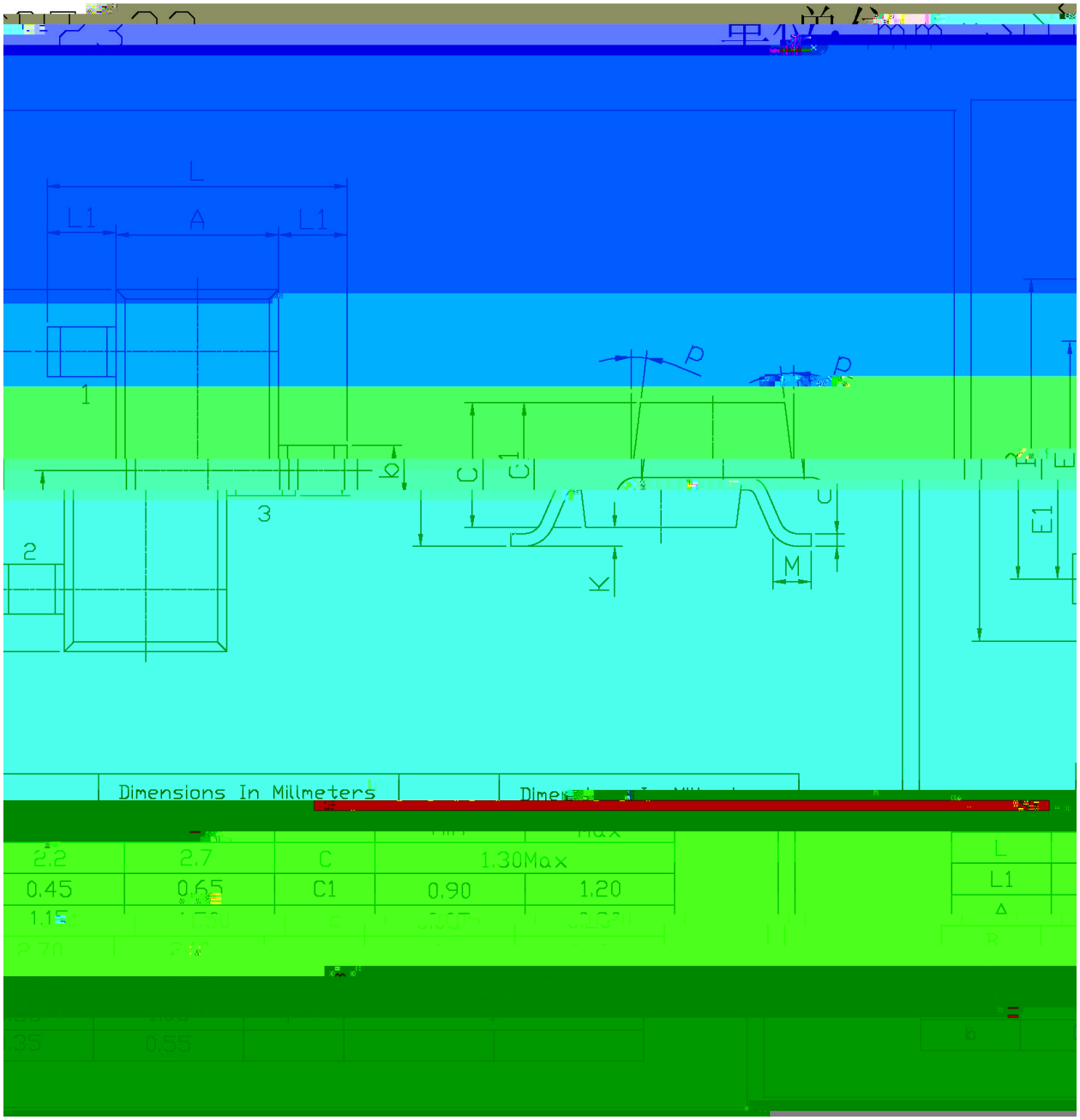

V_{GS}=-2.5V
I_D=-2.0A

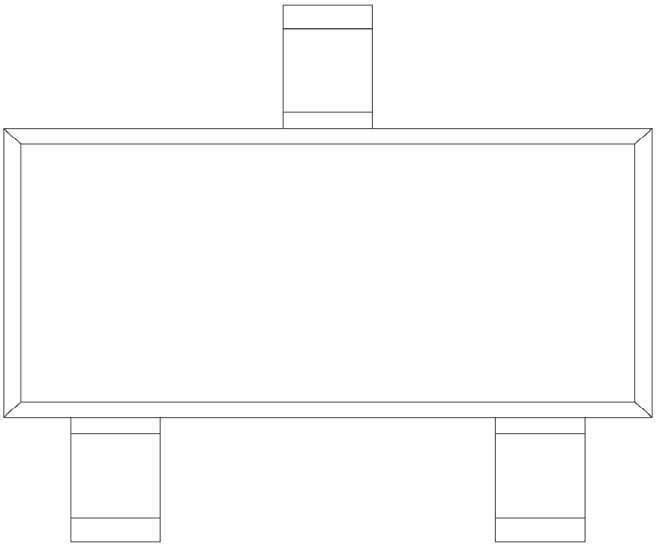

I_D=-2A



Operating Area.




L
L1
A
L1
1
2
3
E1
M
Dimensions In Millmeters
2.2
2.7
C
1.30Max
0.45
0.65
C1
0.90
1.20
1.15
0.35
0.55
L
L1
A



Temperature Profile for IR Reflow Soldering(Pb-Free)

ب ˝ χ

1 Ĺ ♬ □ ỷ 150 Ḱ 180 ɬ ı `H ژ 60 Ḱ 90sec;

2 Š Ө □ ỷ 245 ° 5 ɬ ı `H ژ `Y ʎ ʁ 5 ° 0.5sec;

3 ì ˙ ʏ ˛ ɔ ɯ ỷ ʁ 2 Ḱ 10 ɬ /sec.

Note:

1.Preheating:150~180 ɬ , Time:60~90sec.

2.Peak Temp.:245 ° 5 ɬ , Duration:5 ° 0.5sec.

3. Cooling Speed: 2~10 ɬ /sec.

□ ỷ χ 260 ° 5 ɬ `H ژ χ 10 ° 1 sec.

Temp.:260 ° 5 ɬ Time:10 ° 1 sec

ɔ ` ɣ Ь / REEL

Package Type	Units	Dimension	(unit mm³)