SOT-23 ṂṂ Ḅ P ᵴ MOS ᵬ ᷓ Ẕ ᵑ
S- CHANNEL MOSFET in a SOT-23 Plastic Package.

YGV +Y, @ 049Y ⱡG @ 0813D
UGV+RQ, C 0718Y ᵛ 68 p Ƒ+W | s1 5 ; 18 p Ƒ,
UGV+RQ, C 0518Y ᵛ 88 p Ƒ+W | s1 6 ; 1 ; p Ƒ,
UGV+RQ, C 041 ; Y +W | s1 87 p Ƒ,
ᵑ̀ ꜰ ᵝ KI Surgxfw1

ᵮ ɔ ◊ ᵑ ᴨ ı ӂ Ӓ Ã ᵩ ᵻ ⁼ ɔ – ĕ ɔ ᵚ ᵻ

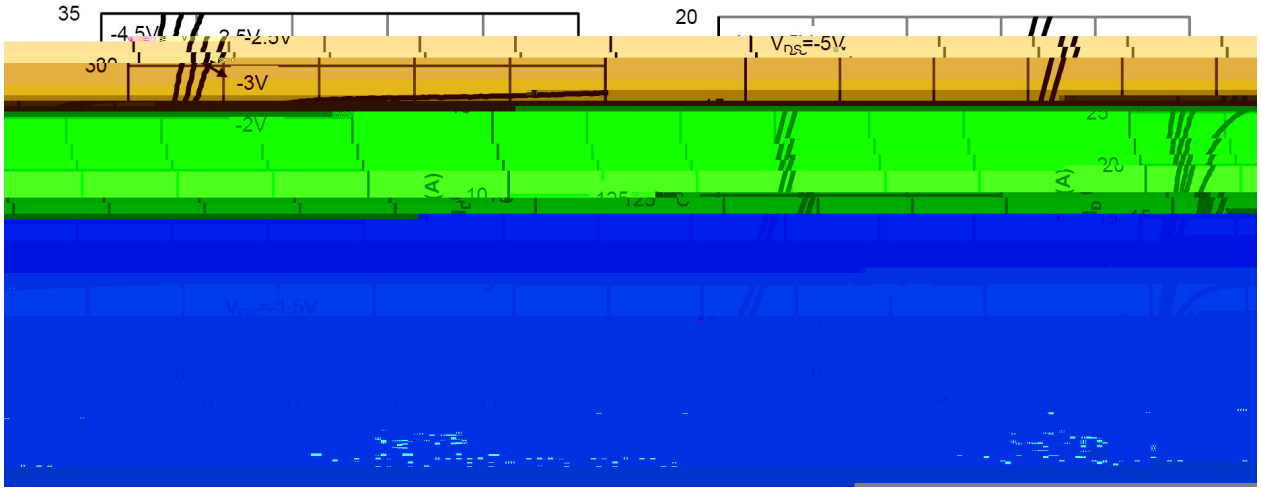
Power Management in Notebook computer, Portable Equipment and Battery powered systems.

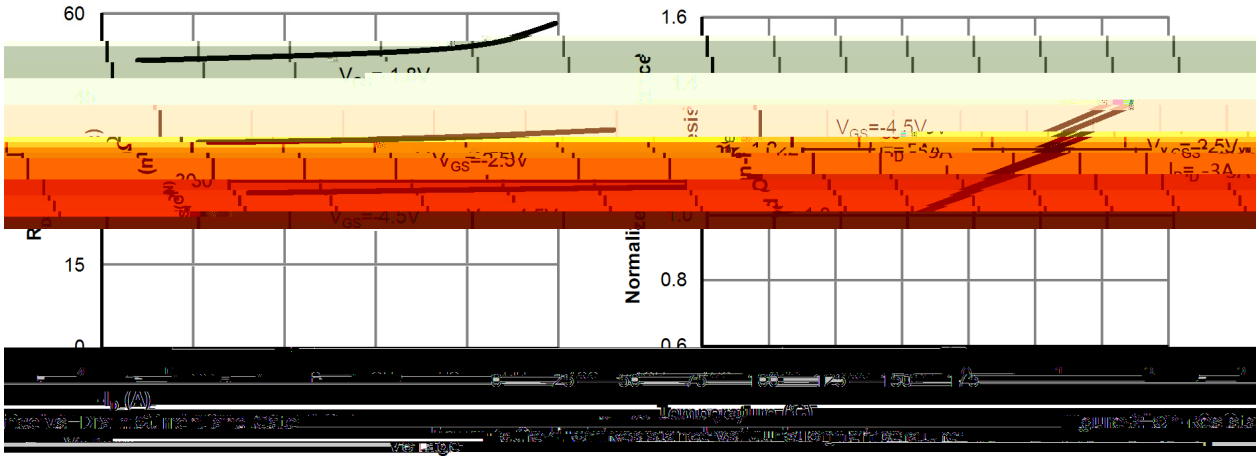
MOS

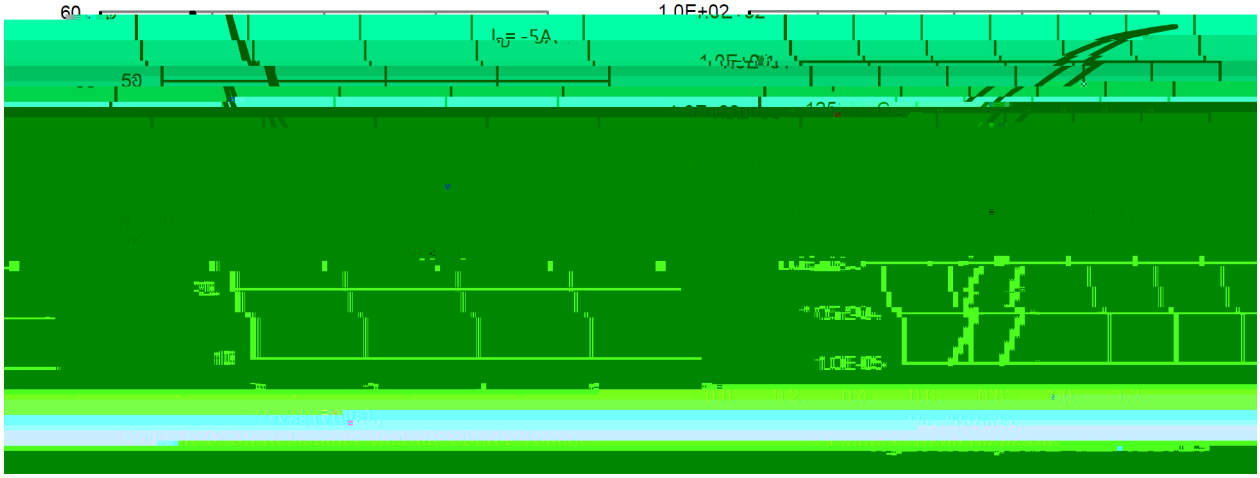
v ¨Ω Parameter	ϒ N Symbol	¨Ω Ö Rating	D Ц Unit
Drain-Source Voltage	V_{DSS}	-16	V
Gate-Source Voltage	V_{GSS}	±12	V
Continuous Drain Current	I_D	-5.0	A
Pulsed Drain Current	I_{DM}	-20	A
Power Dissipation for Single Operation	P_D	0.7	W
Maximum Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 Ќ 150	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	179	ћ /W

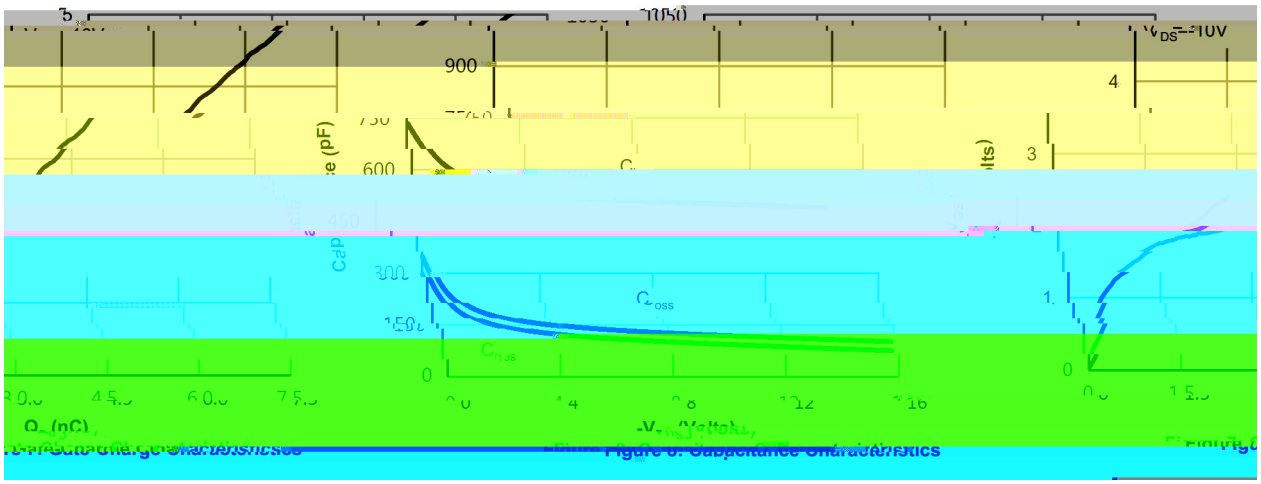
v ¨Ω Parameter	ϒ N Symbol	Ш ː ϯ ţ Test Conditions	ѡ ņ Ö Min	Ɛ ʒ Ö Typ	ѡ ᶻ Ö Max	D Ц Unit
Drain-Source Breakdown Voltage	BV_{DSS}	I_D=-250μA V_{GS}=0V	-16	-17.8		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-15V V_{GS}=0V			-1.0	μA
Gate-Body leakage current	I_{GSS}	V_{DS}=0V V_{GS}=±12V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=-250μA	-0.4	-0.62	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=-4.5V I_D=-5A		28.5	35	mˈ
		V_{GS}=-2.5V I_D=-3A		38.8	55	
		V_{GS}=-1.8V I_D=-1A		54		
Diode Forward Voltage	V_{SD}	I_S=-1A V_{GS}=0V			-1.2	V
Reverse Recovery Time	t_{rr}	V_{DS}=-10V, I_D=-4A dI_{SD}/dt = 100 A/μs		18.7		ns
Reverse Recovery Charge	Q_{rr}			4		nC
Gate resistance	Rg	V_{GS}=0V, V_{DS}=0V, f=1MHz		8.5		ˈ
Input Capacitance	C_{iss}	V_{GS}=0V V_{DS}=-15V f=1MHz		495		pF
Output Capacitance	C_{oss}			100		
Reverse Transfer Capacitance	C_{rss}			80		

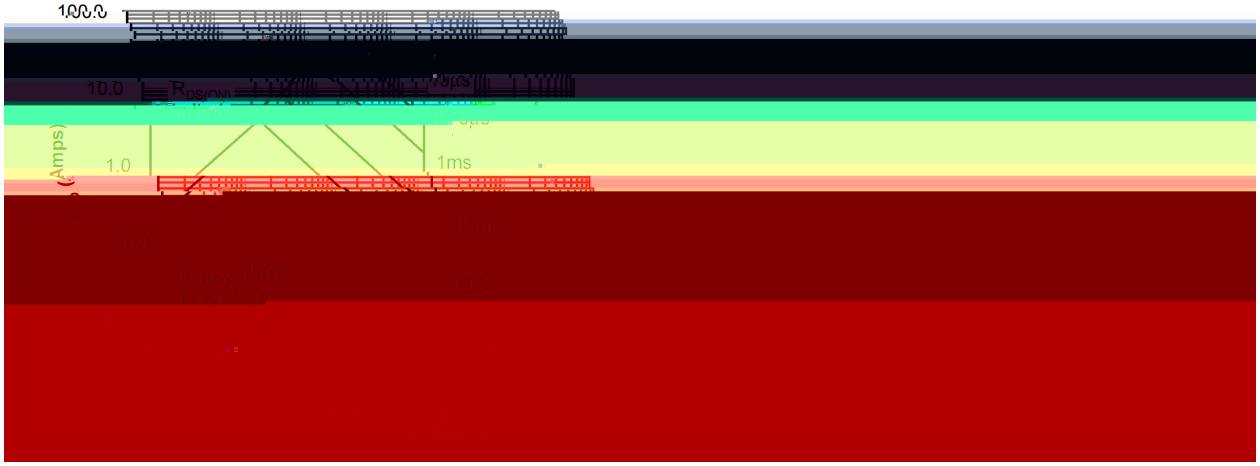
v ̈Ọ Parameter	ϒ ᴺ Symbol	╨ ⁝ˀ ϯ Test Conditions	ѡ ṇ Ө Min	Ɛ ʒ Ө Typ	ѡ ᶻ Ө Max	ᴅ Ꮋ Unit
Total Gate Charge	Q_g	V_{GS}=-4.5V, V_{DS}=-10V, RL=2.5Ω		5.7		nC
Gate Source Charge	Q_{gs}			0.3		
Gate Drain Charge	Q_{gd}			1.9		
Turn–On Delay Time	$t_{d(on)}$	V_{GS}=-4.5V V_{DS}=-10V RL=2.5Ω R_g=3Ω		8.3		ns
Turn–On Rise Time	t_r			32.3		
Turn–Off Delay Time	$t_{d(off)}$			38.2		
Turn–Off Fall Time	t_f			49.4		

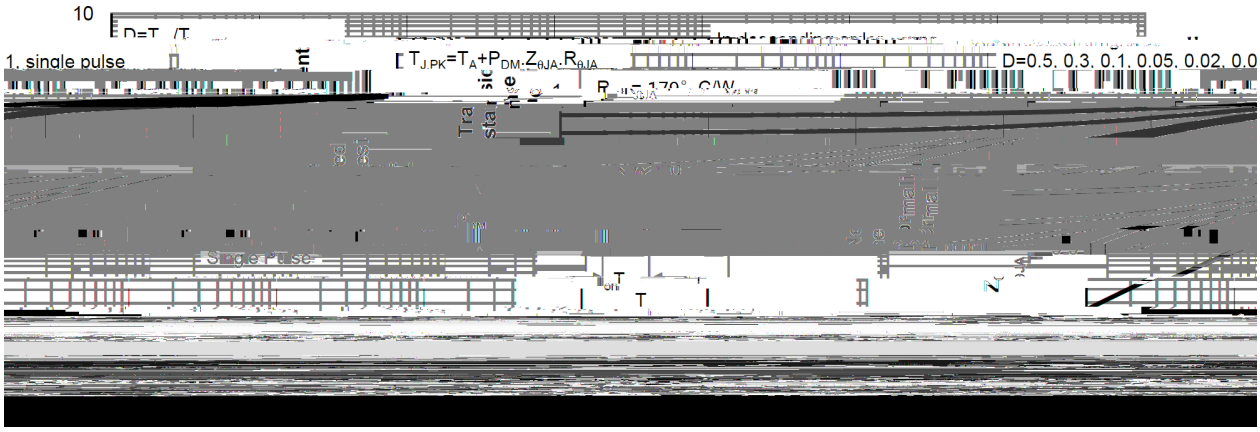

35
-4.5V
-3V
-2V
20
V_{DS}=-5V
125
25
V_{GS}=1.5V


60
V_{GS}=-2.5V
V_{GS}=-4.5V
1.6
V_{GS}=-4.5V
V_{GS}=-2.5V
I_D=-3A
15
0
Normalized
1.0
0.8
0.6
I_D (A)

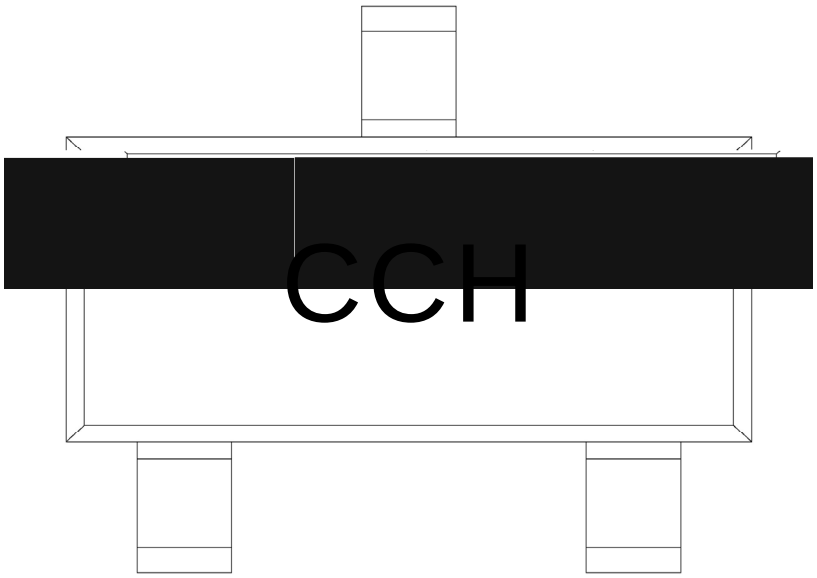

60
I_D= -5A
50
1.0E+02
1.0E-05


900
600
450
300
150
0
(pF)
Capacitance
C_{oss}
C_{rss}
Q_g (nC)
V_{DS} (Volts)
V_{DS}=10V
4
3
1
0


100
10.0
1.0
0.1
$R_{DS(ON)}$
1ms
10ms
(Amps)


10
1. single pulse
D=0.5, 0.3, 0.1, 0.05, 0.02, 0.0
Single Pulse
T

Rev.A Apr.-2025



ᑇ ᵔ χ

H χ ᑲ ᖁ ᴎ ᒉ

CC χ ᑲ ᖂ ᴺ ᒉ

Note:

H: Company Code

CC: Product Type Code