9 5 : .> / / x 4 ?ú 3 3 5 9 « | • ’ož
N- CHANNEL MOSFET in a SOT-23 Plastic Package.

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Super high dense cell design for low $R_{DS(ON)}$,SOT-23 package, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

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@ ƒ Parameter		… Z Symbol	ƒ › Rating	% y Unit
Drain-Source Voltage		V_{DSS}	20	V
Gate-Source Voltage		V_{GSS}	±12	V
Drain Current – Continuous		I_D	6.5	A
Pulsed Drain Current		I_{DM}	38	A
Power Dissipation		P_D	1.3	W
Storage Temperature Range		T_{stg}	-55 150	
Maximum Junction-to-Ambient	t ‡ 10s	R_{JA}	90	/W
Maximum Junction-to-Ambient	Steady-State		125	
Maximum Junction-to-Lead	Steady-State	R_{JL}	80	

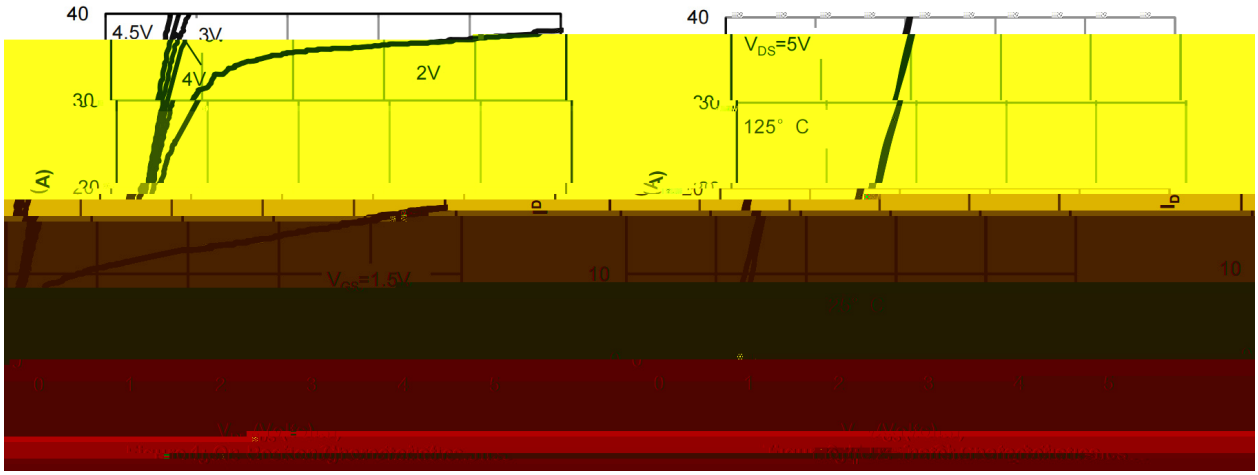
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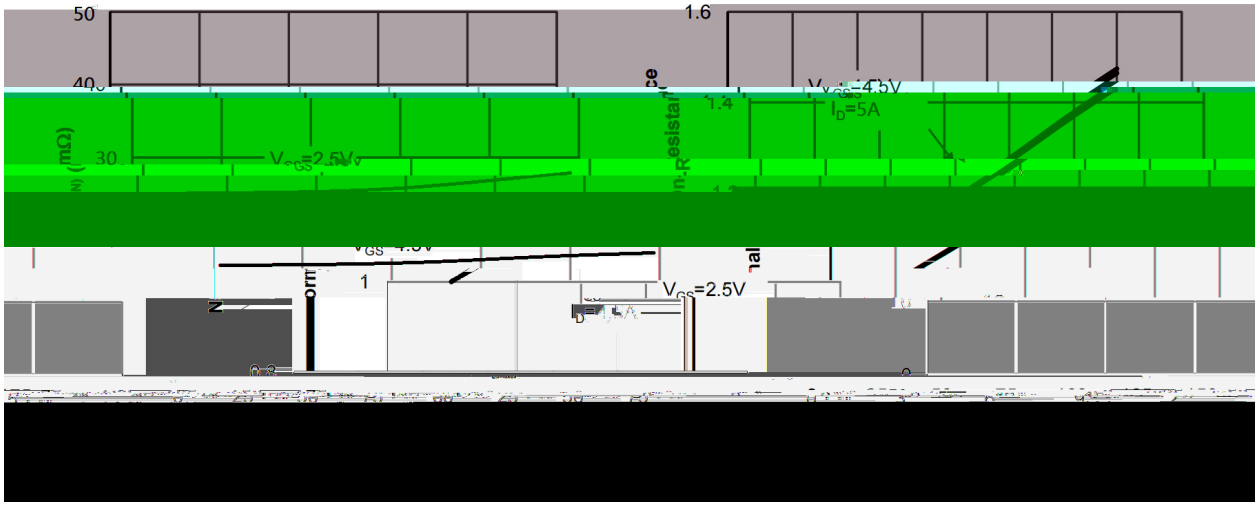
@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 A	0.5	0.9	1.2	V
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0 I_D=250 A	20	21		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{GS}=0 V_{DS}=20V			1.0	A
Gate–Body Leakage.	I_{GSS}	V_{GS}=±12V V_{DS}=0V			±100	nA
Static Drain–Source On–Resistance	$R_{DS(on)1}$	V_{GS}=4.5V I_D=5.0A		16.5	33	m
	$R_{DS(on)2}$	V_{GS}=2.5V I_D=4.5A		23.5	40	m
	$R_{DS(on)3}$	V_{GS}=1.8V I_D=4.0A			51	m
Drain–Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_D=1A		0.78	1.2	V

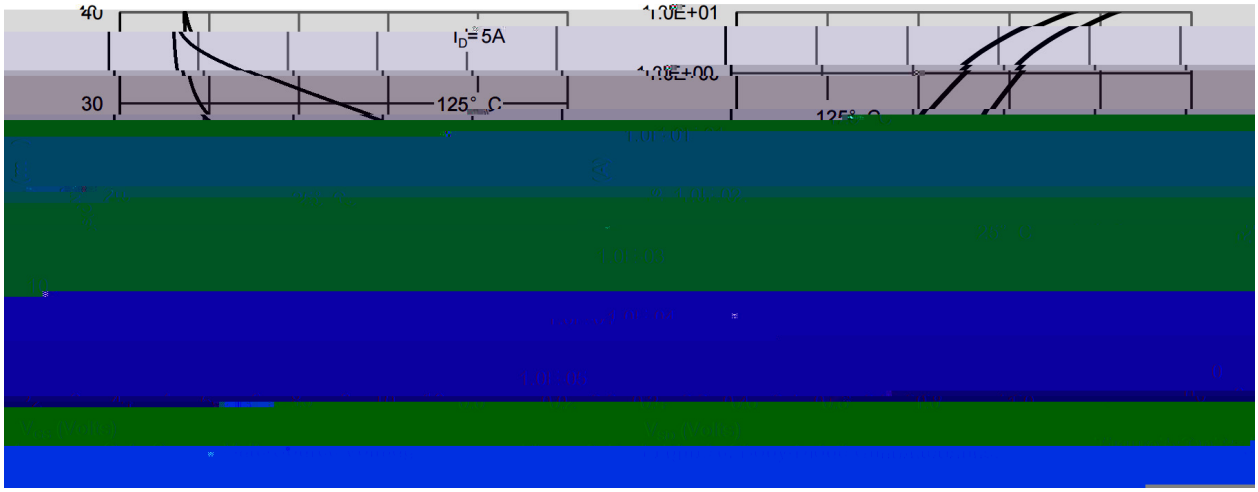
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@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Input Capacitance	Ciss	V_{GS}=0V, V_{DS}=10V f=1MHz		860		pF
Output Capacitance	Coss			800		
Reverse Transfer Capacitance	Crss			495		
Gate resistance	Rg	V_{GS}=0V, V_{DS}=0V f=1MHz		4.9		¡
Total Gate Charge	Qg(4.5V)	V_{GS}=4.5V, V_{DS}=10V I_D=6.5A		7		nC
Gate Source Charge	Qgs			1		
Gate Drain Charge	Qgd			2		
Turn–On Delay Time	$t_{d(on)}$	V_{GS}=4.5V, V_{DS}=10V R_L=1.54 Ÿ, R_{GEN}=3 Ÿ		7		ns
Turn–On Rise Time	t_r			10		
Turn–Off Delay Time	$t_{d(off)}$			32		
Turn–Off Fall Time	t_f			11		

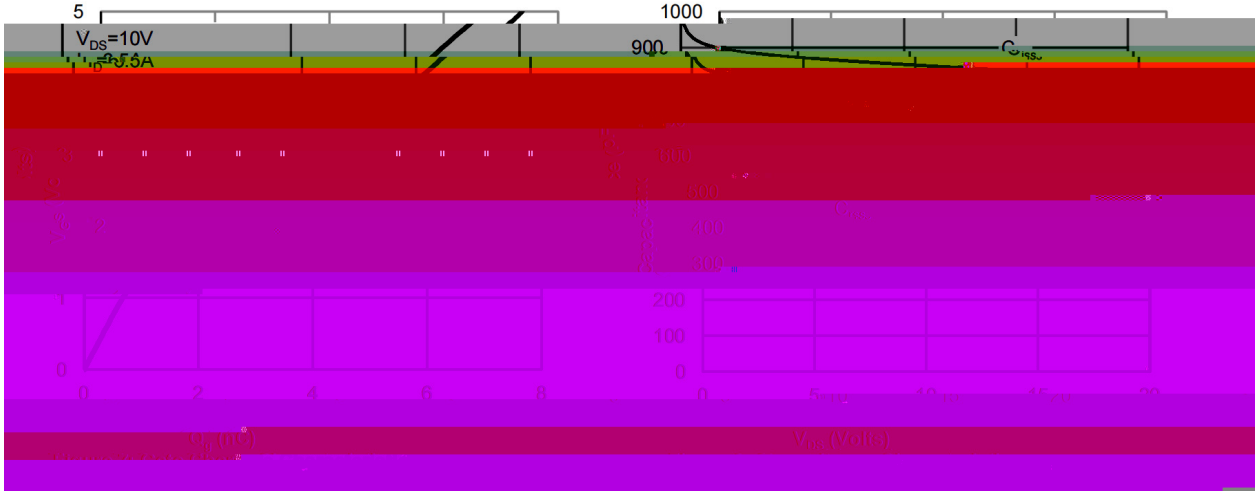
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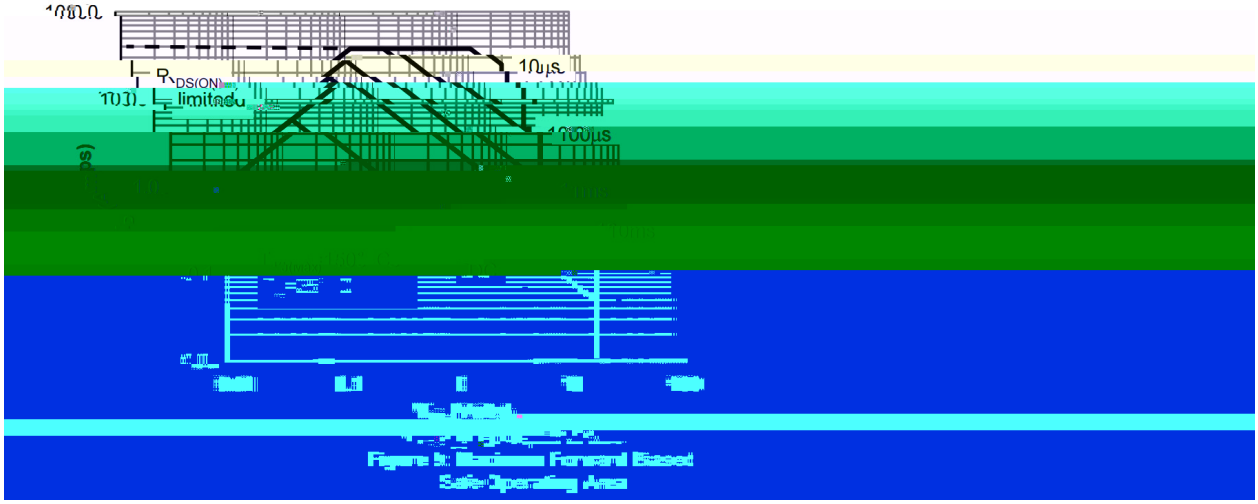

40
4.5V
3V
4V
2V
30
20
10
V_{GS}=1.5V
V_{DS}=5V
125° C

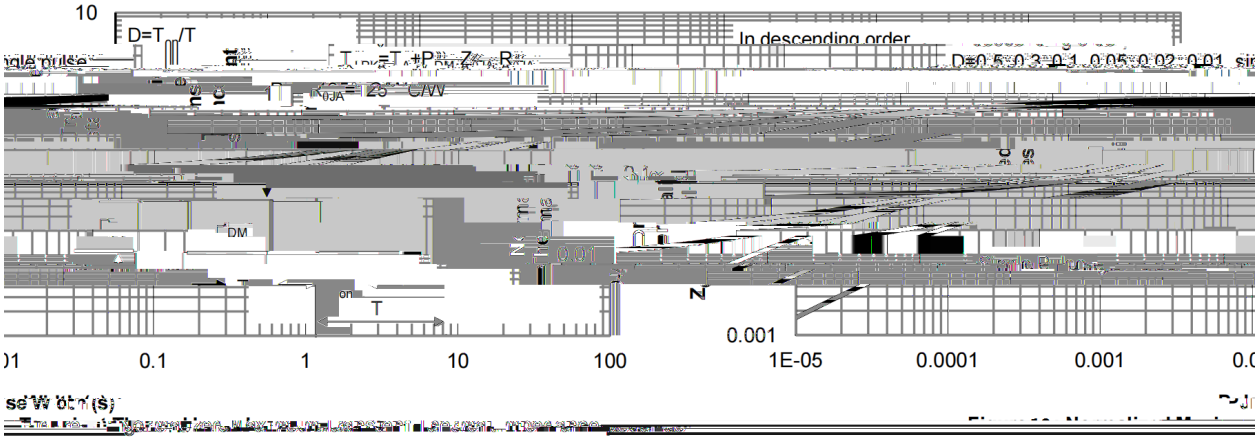

50
40
30
V_{GS}=2.5V
1.6
1.4
V_{GS}=4.5V
I_D=5A
1
V_{GS}=2.5V


40
30
I_D=5A
125° C
1.0E+01
1.0E+00

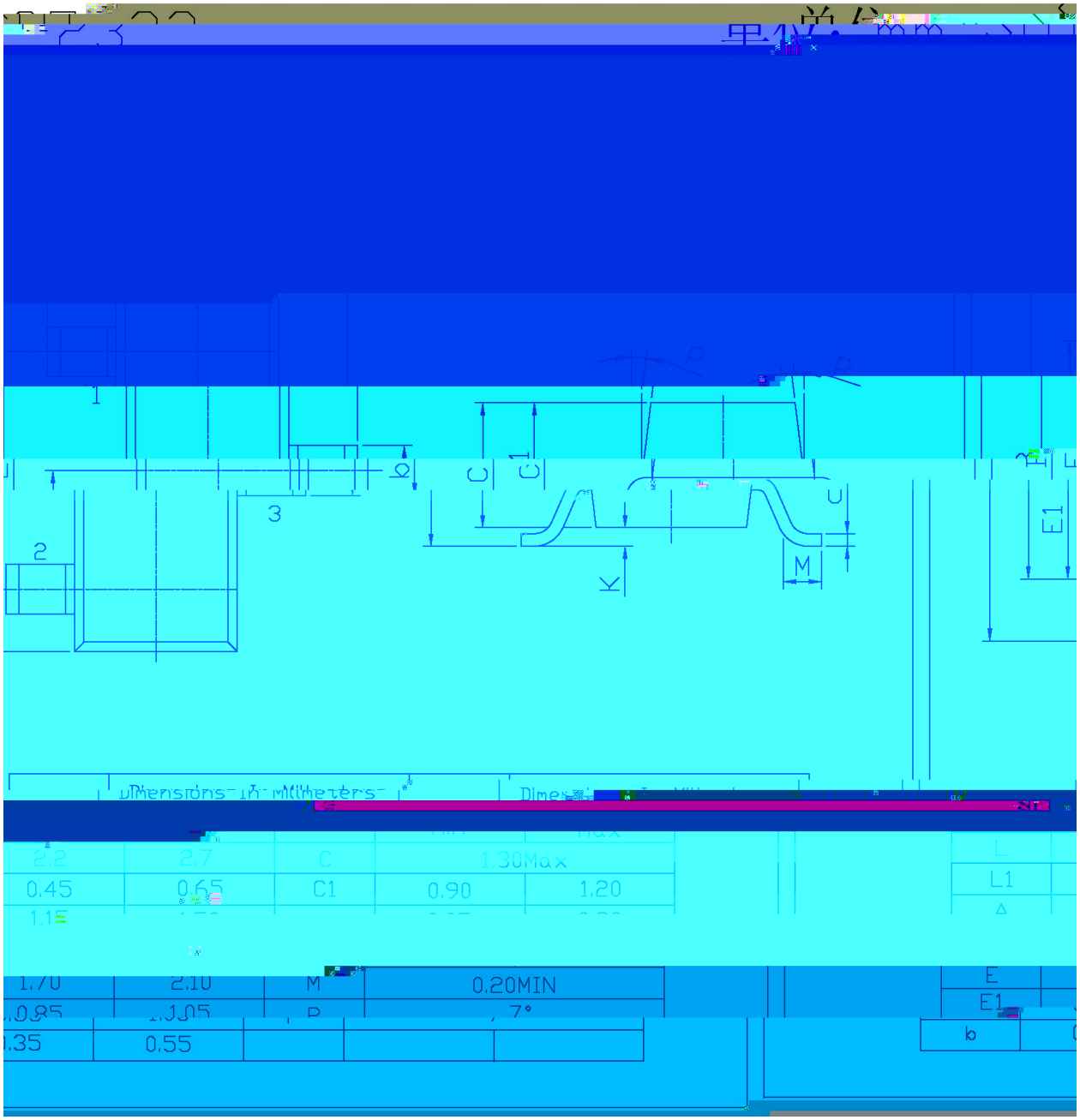
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5
V_{DS}=10V
1000
900
600
500
400
300
200
100
0
0
2
4
6
8
0
5
10
15
20

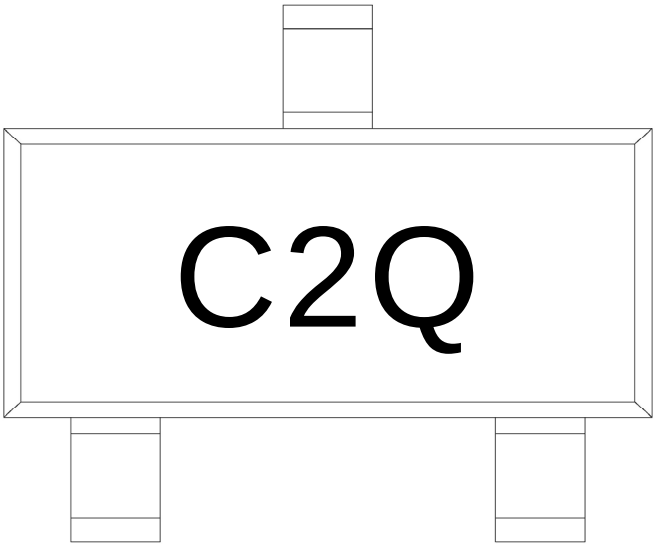

$R_{DS(ON)}$
limited
10µs
100µs


10
D=T /T
In descending order
D=0.5 0.3 0.1 0.05 0.02 0.01
DM
T
0.001
0.1
1
10
100
1E-05
0.0001
0.001

Ø ¤ =) ¢


1
2
3
E1
M
2.2
2.7
C
1.30Max
0.45
0.65
C1
0.90
1.20
L
L1
1.70
2.10
M
0.20MIN
E
E1
0.35
0.55
b

, M y *f*



ª ¢ y

C2: º Z W A

Q y V ñ —)í D } ö œ

Note:

C2 y Product Type Code

7 ' [Z U S U H O R K N G R U M K T L X K K V X U J [I Z) U J K

š WD t ... • Ž ¢ x / :K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6

ª ¢ y

Note:

1o• Ä ½ “ † 150 ½200 - k ž • 60 ½120sec;

1.Preheating:150~200 - , Time:60~120sec.

2o• Q › “ † 255 r5 - k ž • 4 Ò 5 r0.5sec;

2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »]

“ † y 260 r5 - ž • y 10 r1 sec.

Temp.:260 r5 - Time:10 r1 sec

G P á

2 & x / REEL

Package Type 7>û ˜ E	Units ;>û ¦H	Dimension ;>û p . (unit Æmm³)