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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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Static Characteristics

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 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	R_{JA}	90	°C/W
Maximum Junction-to-Ambient	Steady-State	125	
Maximum Junction-to-Lead	Steady-State	80	

Dynamic Characteristics

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250 \mu A$	0.5	0.9	1.2	V
Drain–Source Breakdown Voltage	$V_{(BR)DS}$	$V_{GS}=0$ $I_D=250 \mu A$	20	21		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{GS}=0$ $V_{DS}=20V$			1.0	μA
Gate–Body Leakage.	I_{GSS}	$V_{GS}=\pm 12V$ $V_{DS}=0V$			± 100	nA
Static Drain–Source On–Resistance	$R_{DS(on)1}$	$V_{GS}=4.5V$ $I_D=5.0A$		16.5	33	m Ω
	$R_{DS(on)2}$	$V_{GS}=2.5V$ $I_D=4.5A$		23.5	40	m Ω
	$R_{DS(on)3}$	$V_{GS}=1.8V$ $I_D=4.0A$			51	m Ω
Drain–Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_D=1A$		0.78	1.2	V

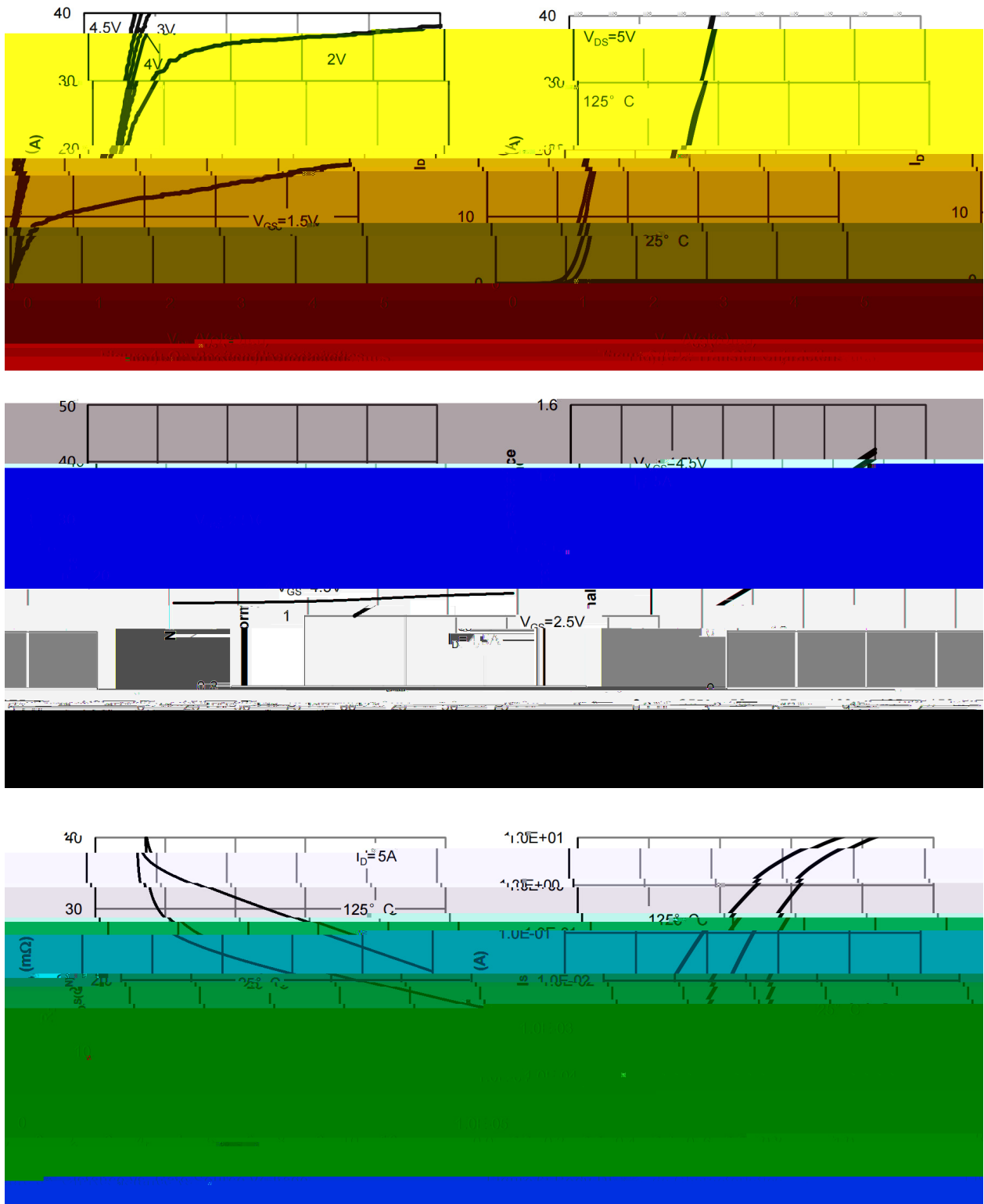
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@ f Parameter	... Z Symbol	y i Ú ^ Test Conditions	Â 4 > Min	Á ° > Typ	Â Ý > Max	% y Unit
Input Capacitance	Ciss	V _{GS} =0V, V _{DS} =10V f=1MHz		860		pF
Output Capacitance	Coss			800		
Reverse Transfer Capacitance	Crss			495		
Gate resistance	Rg	V _{GS} =0V, V _{DS} =0V f=1MHz		4.9		i
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 Ý, R _{GEN} =3 Ý		7		ns
Turn-On Rise Time	t _r			10		
Turn-Off Delay Time	t _{d(off)}			32		
Turn-Off Fall Time	t _f			11		

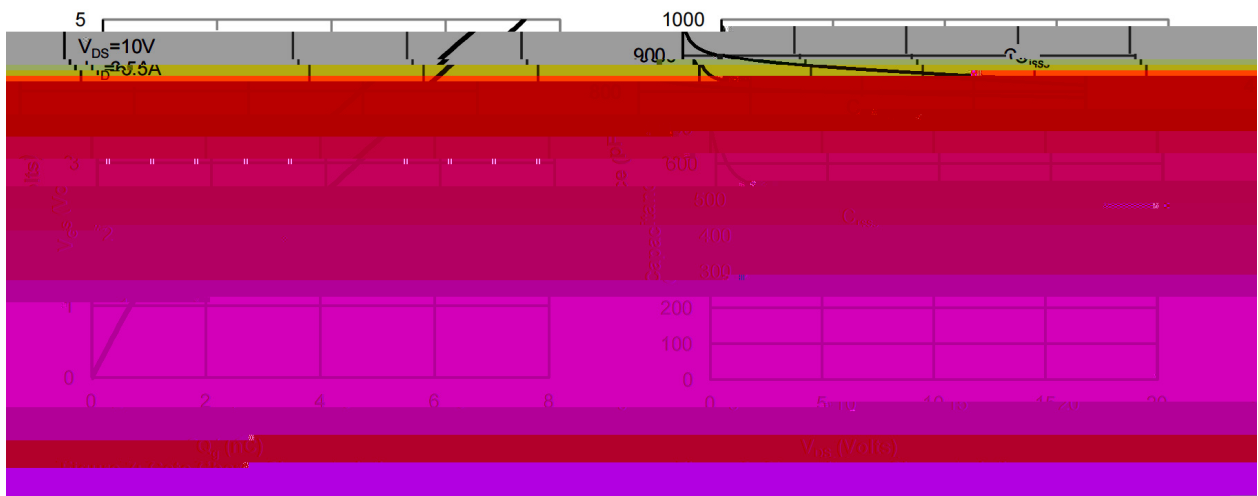
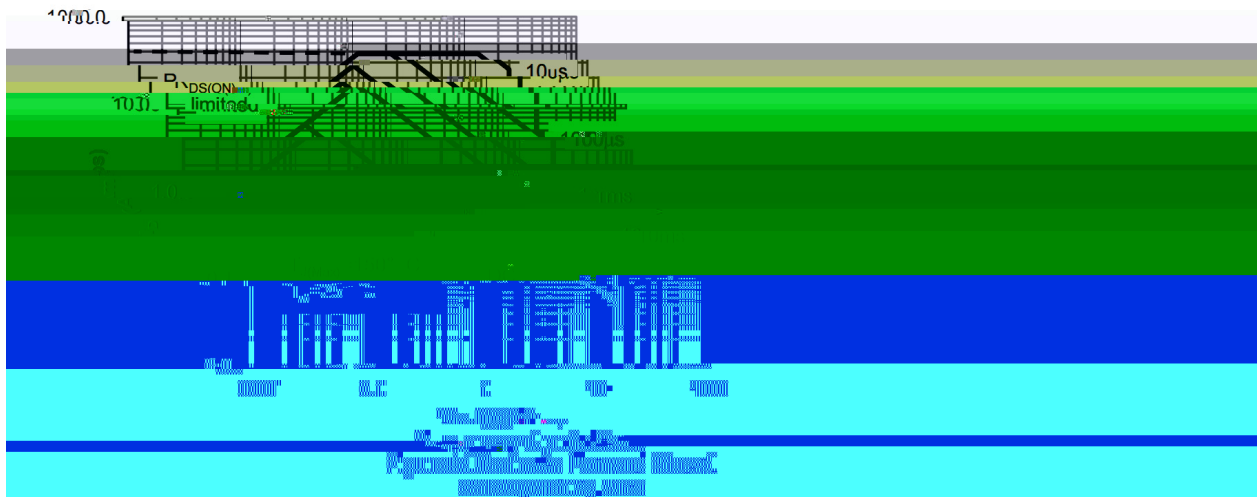
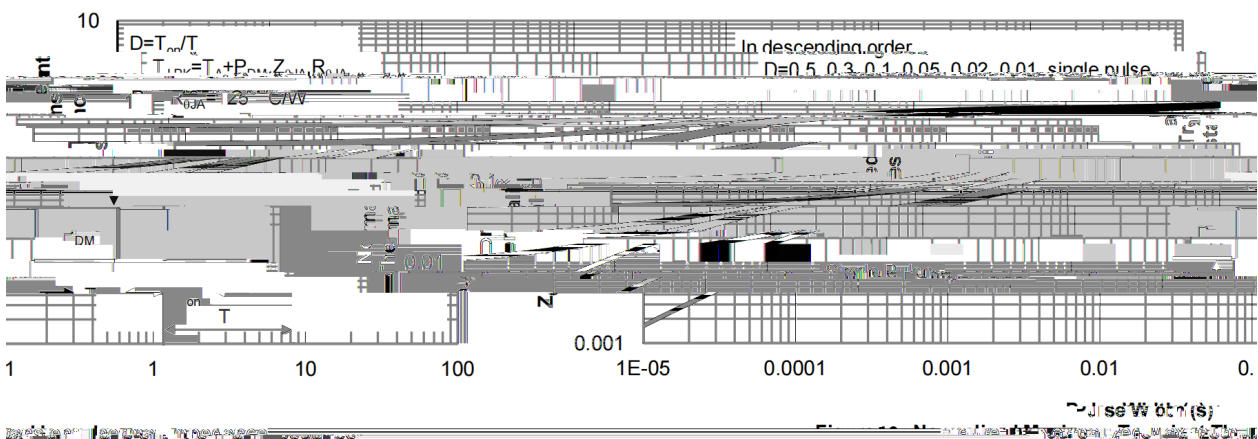
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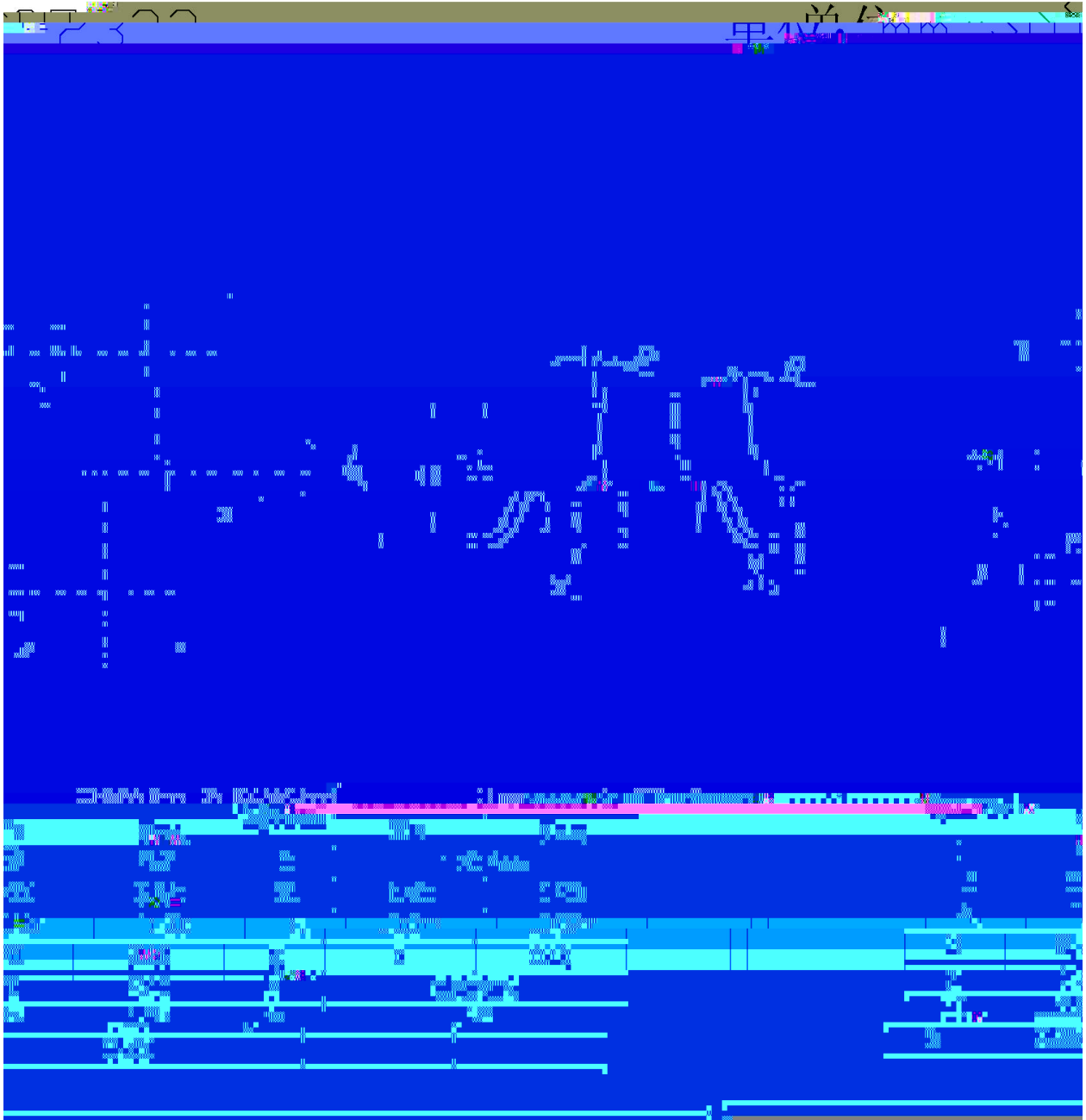
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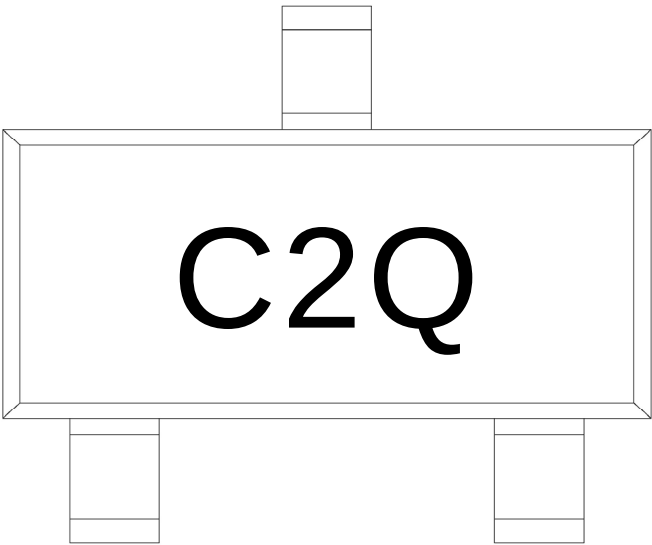


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Note:
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Note:

- 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.

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“† y 260 r5 - ž • y 10 r1 sec. Temp.:260 r5 - Time:10 r1 sec

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Package Type 7>û ~ E	Units ;>û ĨH	Dimension ;>û p . (unit Åmm³)
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