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A	2022.4.21	ALL	AOS-AOD 950A 70		
B	2022.5.26	2,3,4,5	YC-RMX65R1KOSN_ReV1.2		

TO-252

N 650V

N-CHANNEL 650V Super-Junction Power MOSFET in a TO-252 Plastic Package.

$R_{DS(on)}$ ,  $C_{rss}$

$R_{DS(on)}$

$C_{rss}$

Low  $R_{DS(on)}$ , low gate charge, low  $C_{rss}$ , fast switching, HF Product.

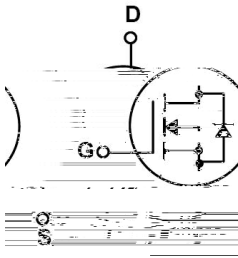
fi

1004(, 1\$)

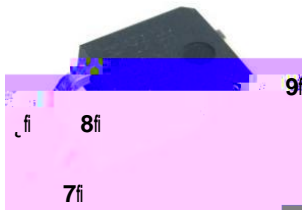
DC/DC

Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products.

53# , 4" . 1fi / \$' (3\$1fi



6\$ . . \$ . / fi



PIN 1 G

PIN 2 D

PIN 3 S

PIN 4 D

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See Marking Instructions.

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Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DSS}$	650	V
Drain Current	$I_D(T_C=25^\circ C)$	5	A
Drain Current - Pulsed	$I_{DM}$	20	A
Gate-Source Voltage	$V_{GS}$	$\pm 30$	V
Single Pulsed Avalanche Energy	$E_{AS}$	27	mJ
Avalanche Current	$I_{AS}$	2.5	A
Power Dissipation	$P_D(T_C=25^\circ C)$	56.5	W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to 150	$^\circ C$
Junction-to-Case	$R_{JC}$	2.2	$^\circ C/W$
Junction-to-Ambient	$R_{JA}$	55	$^\circ C/W$

fi

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Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$ $I_D=250\mu A$	650	700		V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=650V$ $V_{GS}=0V$ $T_J=25^\circ C$			1.0	$\mu A$
Gate-Body Leakage Current, Forward	$I_{GSS}$	$V_{GS}=\pm 30V$			$\pm 100$	nA
Gate Threshold Voltage	$V_{GS(th)}$					

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Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Continuous Diode Forward Current	$I_S$				5	A
Total Gate Charge	$Q_g$	$V_{DS}=520V \quad I_D=2A$ $V_{GS}=10V$		9.1		nC
Gate-Source Charge	$Q_{gs}$			2.1		nC
Gate-Drain Charge	$Q_{gd}$			4.0		nC
Reverse recovery time	$T_{rr}$	$V_R=50 V, I_F=2A,$ $dI_F/dt=100 A/\mu s$		159		ns
Reverse recovery charge	$Q_{rr}$			0.93		uC

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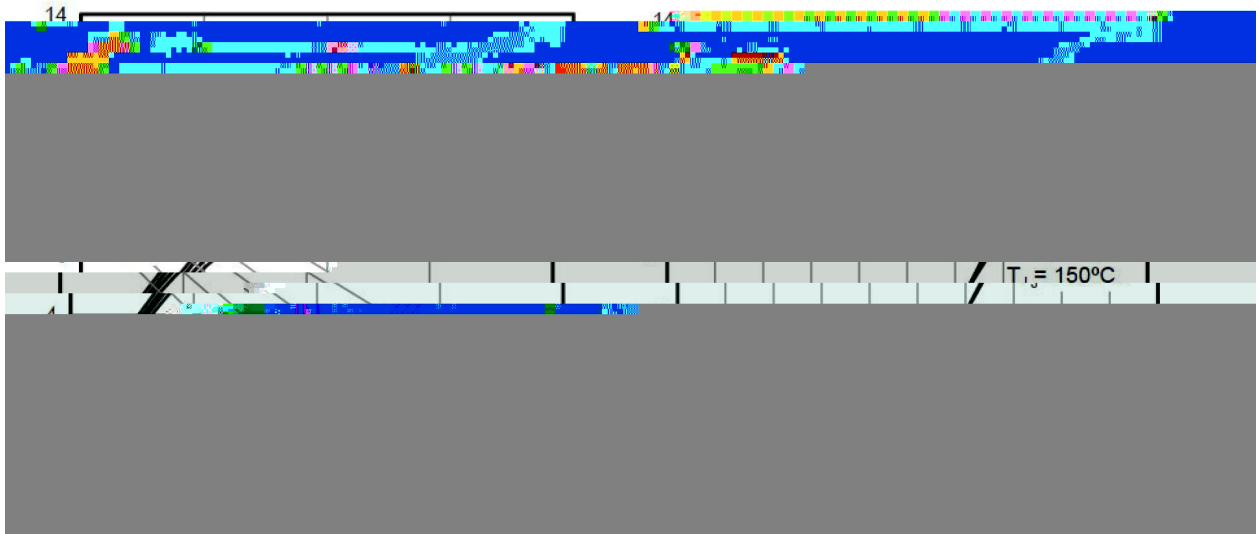
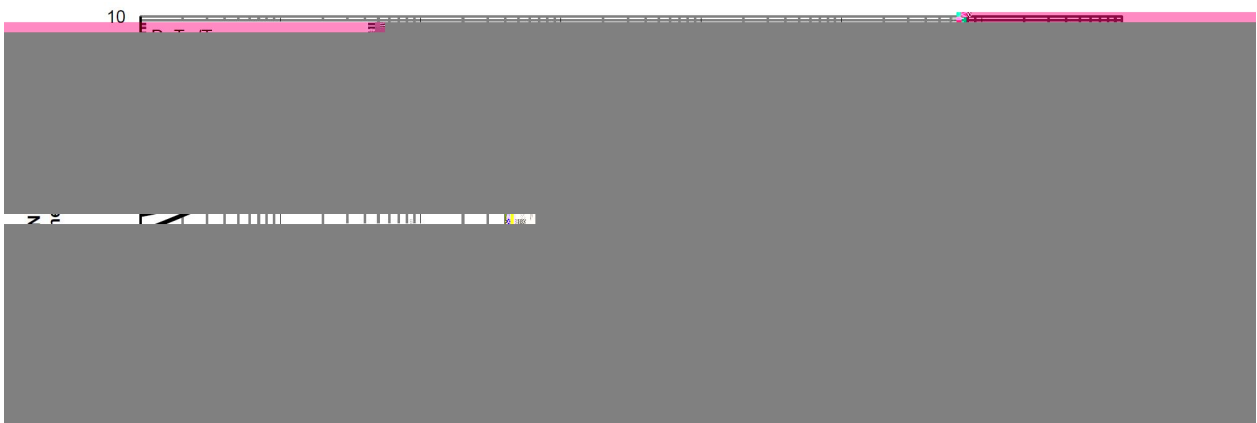
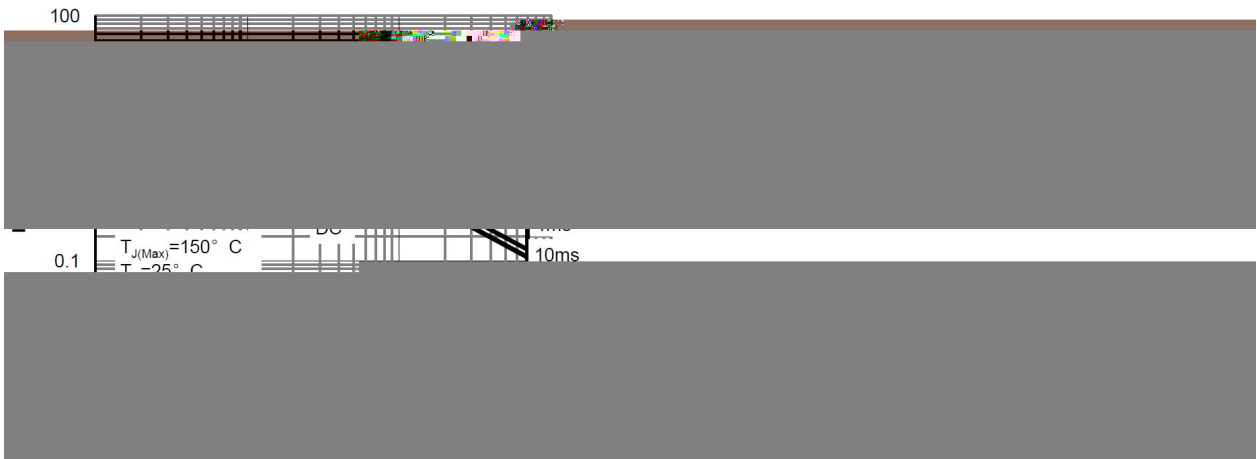
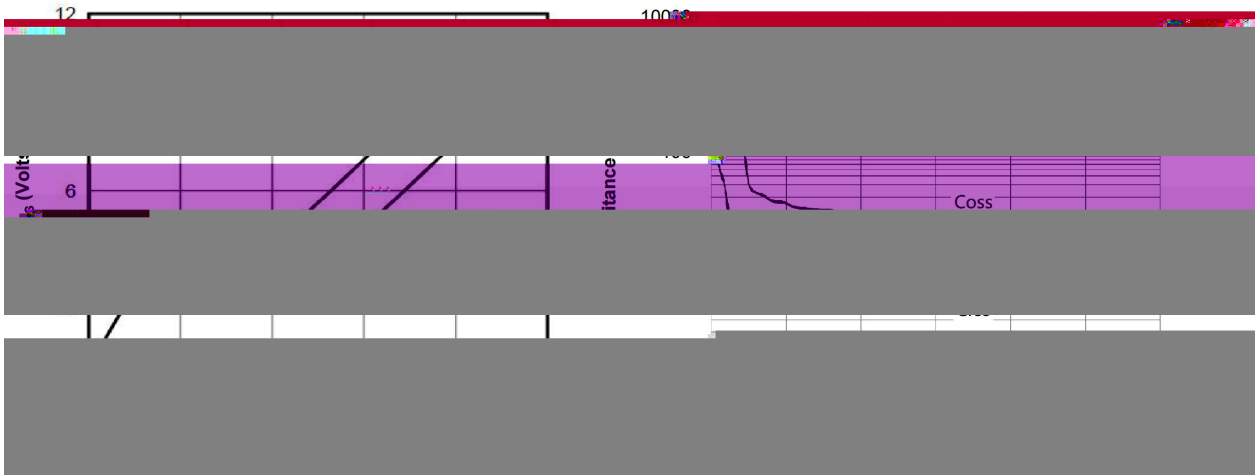
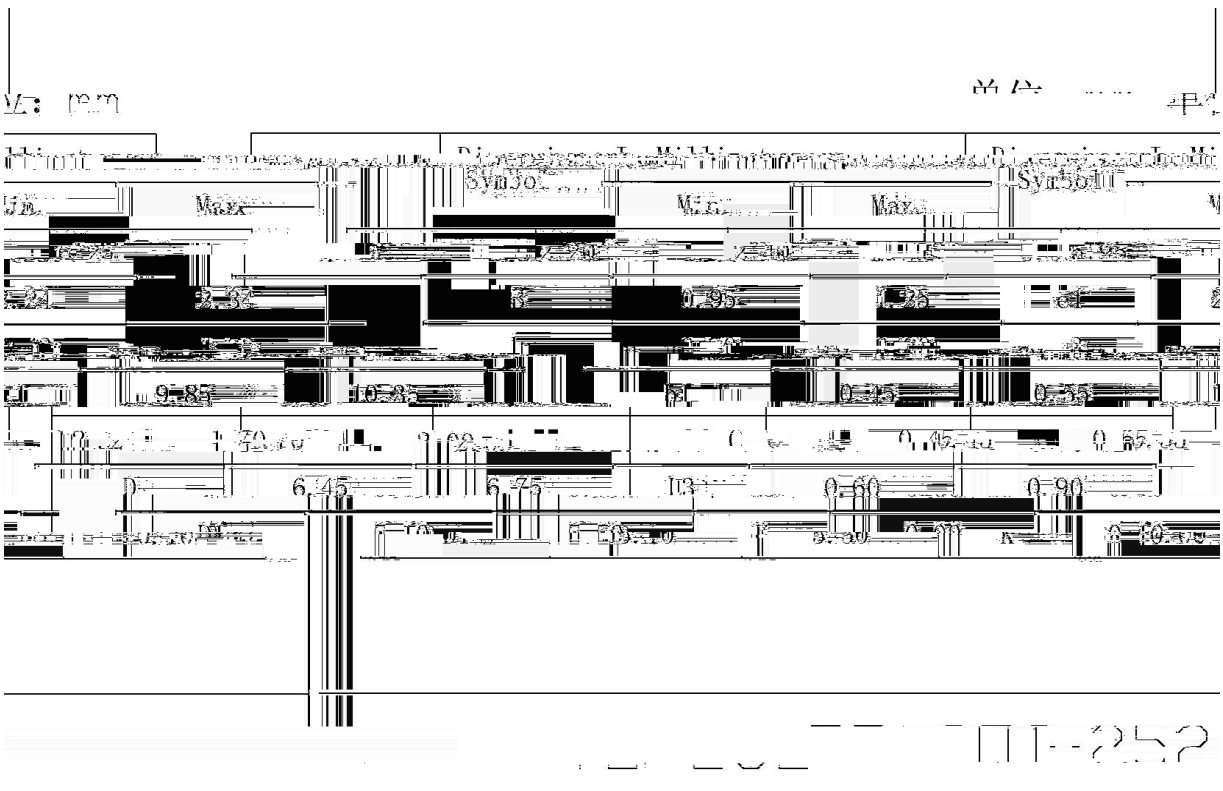
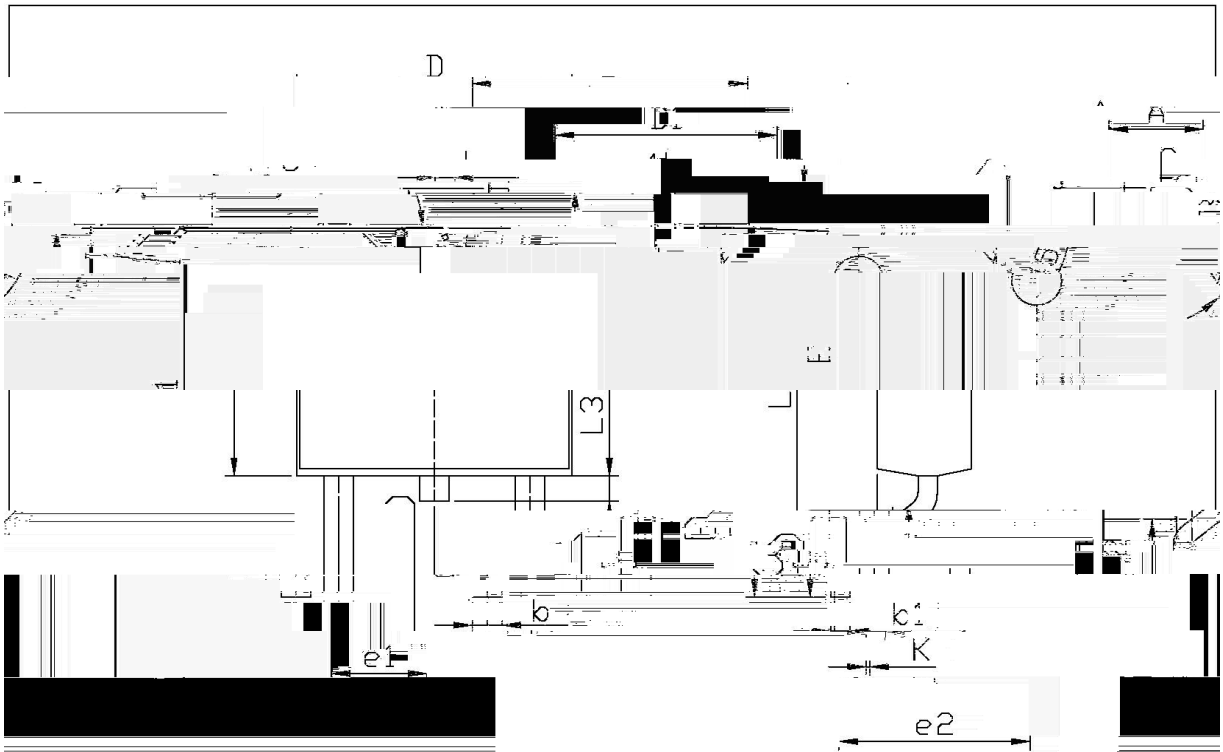


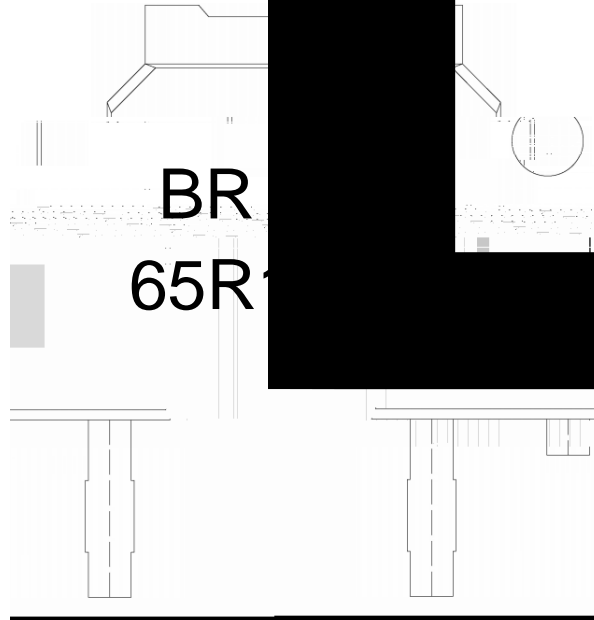
图 4-1 功率 MOSFET 的寄生参数等效电路



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BR

65R1K0C

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Note:

BR: Company Code

65R1K0C: Product Type Code

\*\*\*\*: Lot No. Code, code change with Lot No



Temperature Profile for IR Reflow Soldering(Pb-Free)



- 1 150
- 2 245
- 3

260±5°C 10±1 sec.

6,

/ RE

Package

Units	Package Type