

Rev.A Dec.-2024

SOP-8            N        MOS

Double N-CHANNEL MOSFET in a SOP-8 Plastic Package.

$V_{DS}(V)=30V$      $I_D=12.3A$

$R_{DS(ON)}@10V<12m$  (Typ. 8.7m )

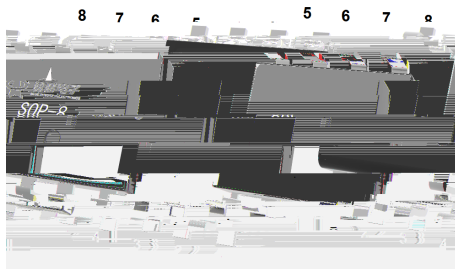
$R_{DS(ON)}@4.5V<20m$  (Typ. 11.5m )

HF Product.

MB/NB/UMPC/VGA

DC-DC

High Frequency Point-of-Load Synchronous Buck Converter for MB/NB/UMPC/VGA,  
Networking DC-DC Power System, Load Switch.



PIN 1	S1	PIN 2	G1	PIN 3	S2	PIN 4	G2
PIN 5	D2	PIN 6	D2	PIN 7	D1	PIN 8	D1

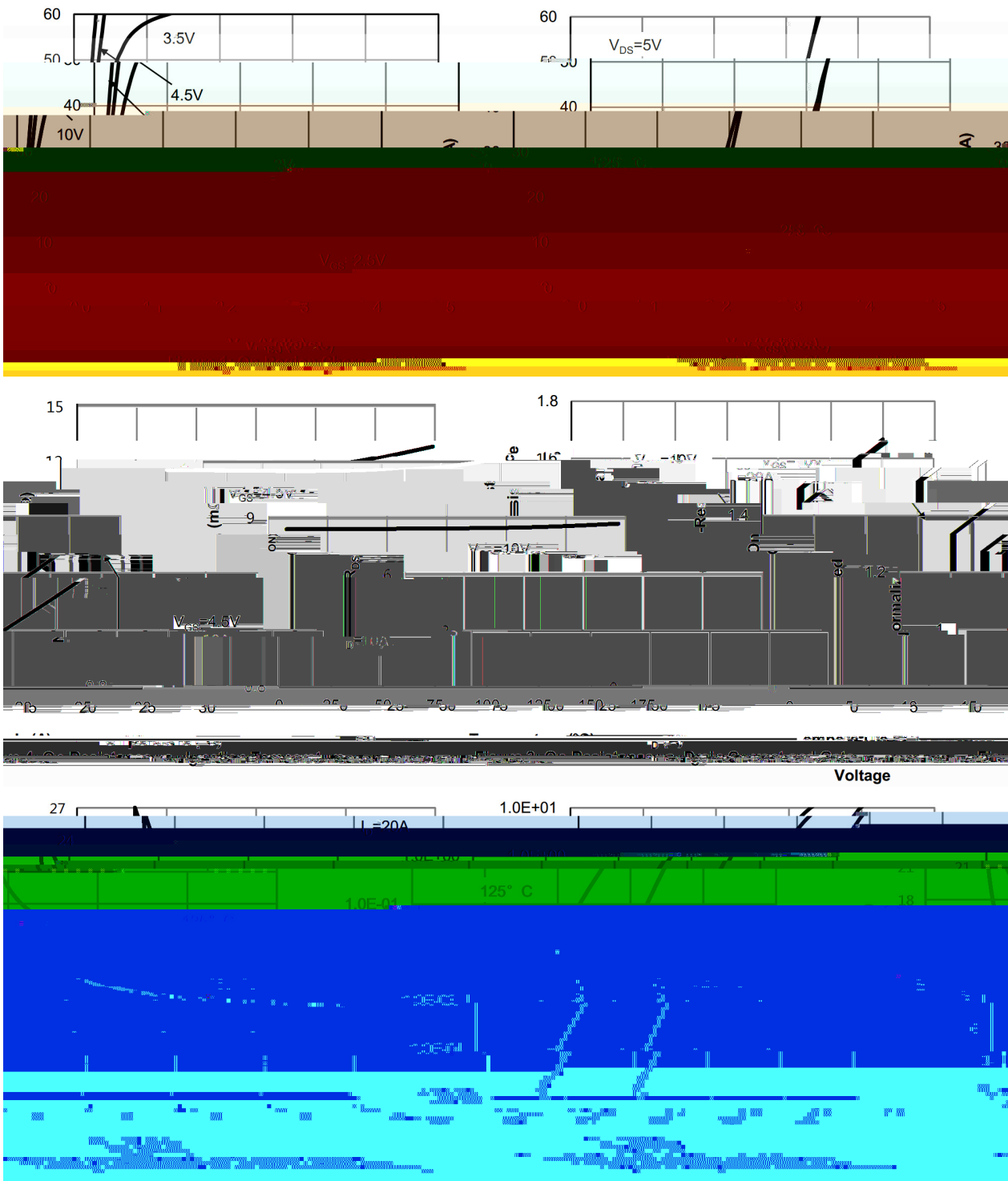
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DSS}$	30	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Continuous Drain Current	$I_D$	12.3	A
Pulsed Drain Current	$I_{DM}$	46.5	A
Power Dissipation	$P_D$	3	W
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	
Maximum Junction-to-Ambient	$R_{JA}(\text{Steady-State})$	41.7	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$ $I_D=250$ A	30	36.5		V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=30V$ $V_{GS}=0V$			1	A
Gate-Body leakage current	I					

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Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{DS}=15\text{ V}$ $V_{GS}=10\text{V}$ $R_L=0.75$ $R_{GEN}=3$		11		ns
Turn-On Rise Time	$t_r$			14		ns
Turn-Off Delay Time	$t_{d(off)}$			38		ns
Turn-Off Fall Time	$t_f$			10		ns



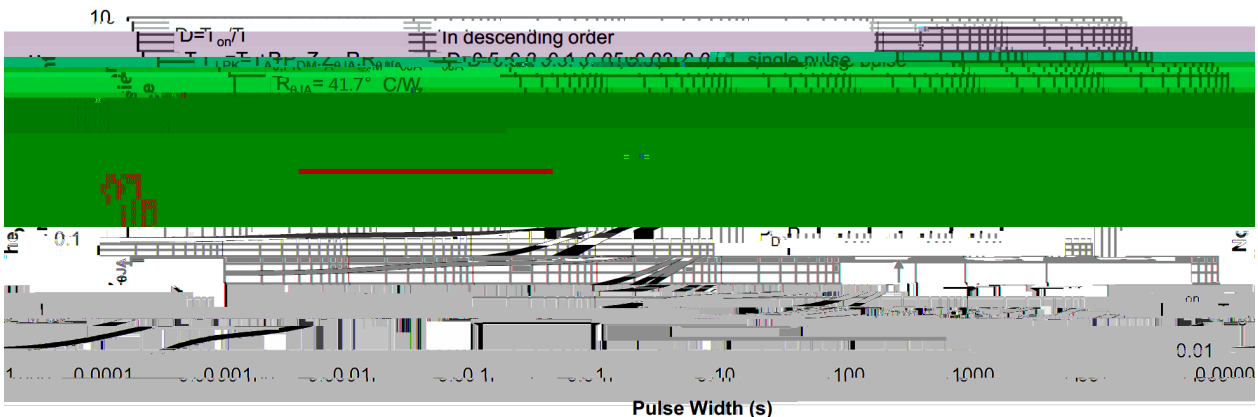
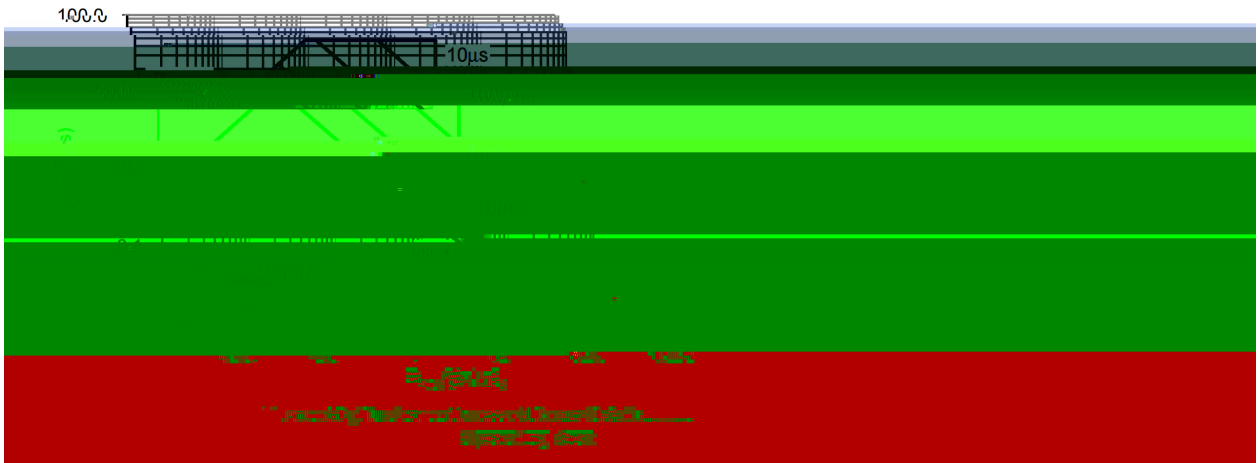
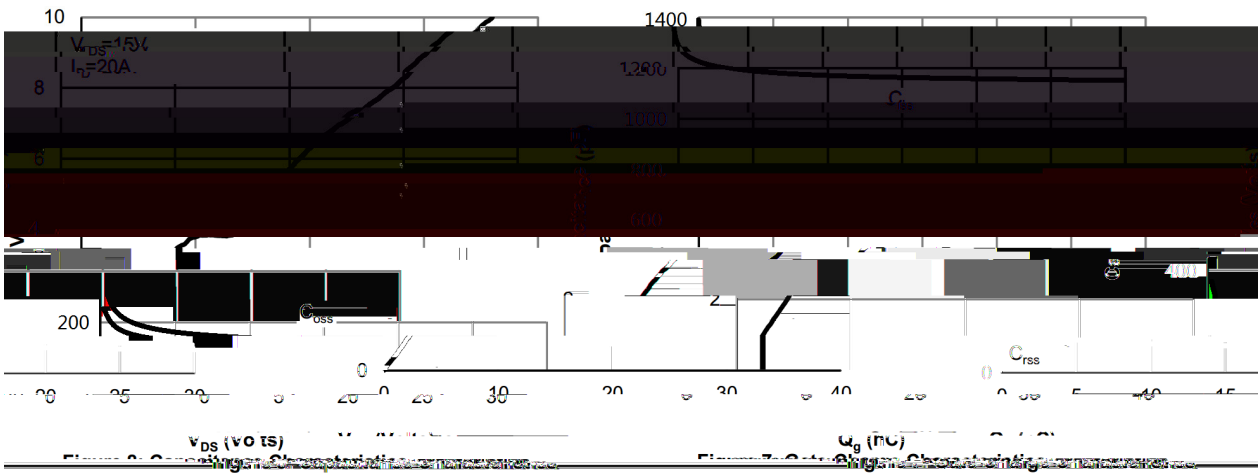
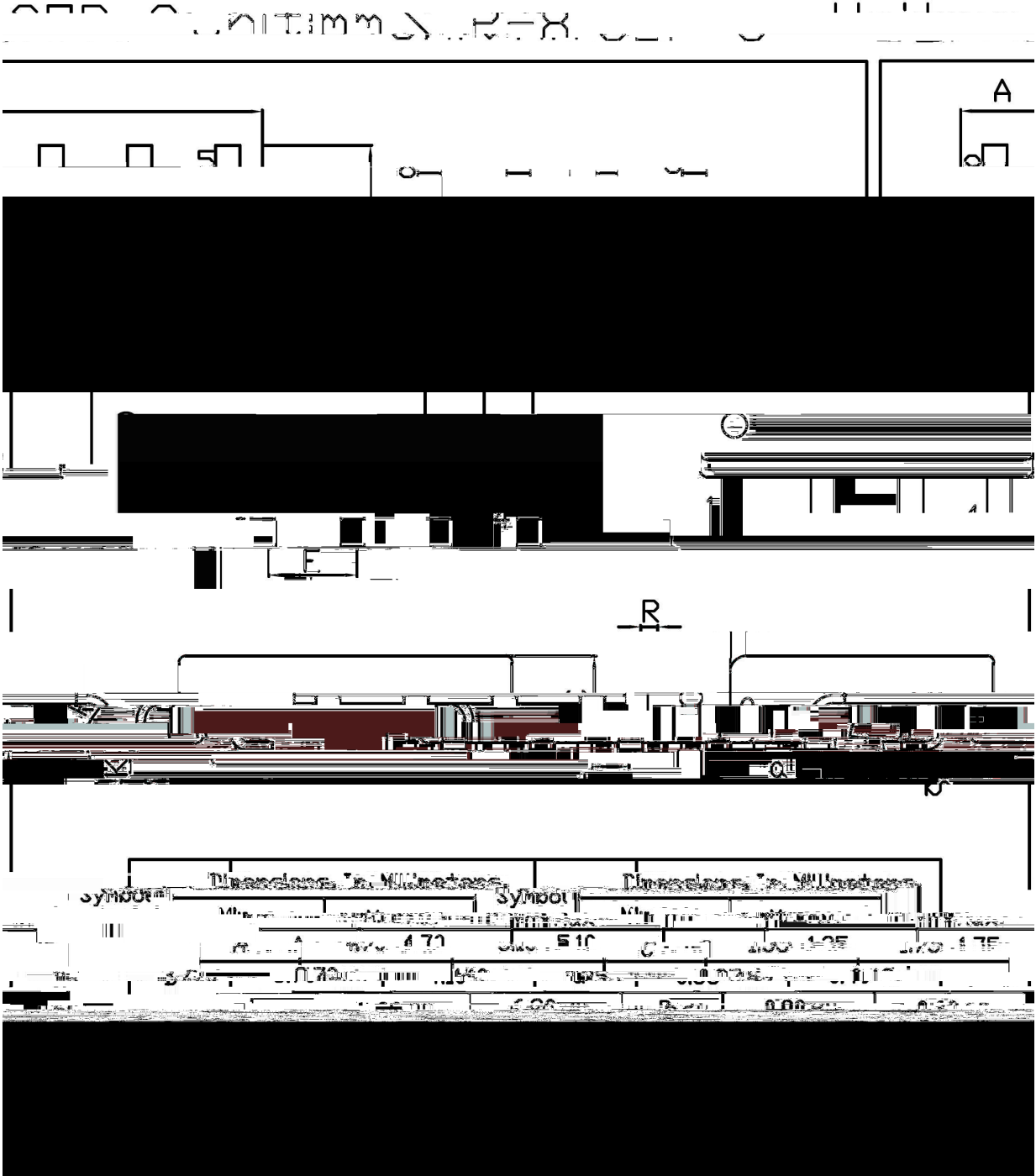
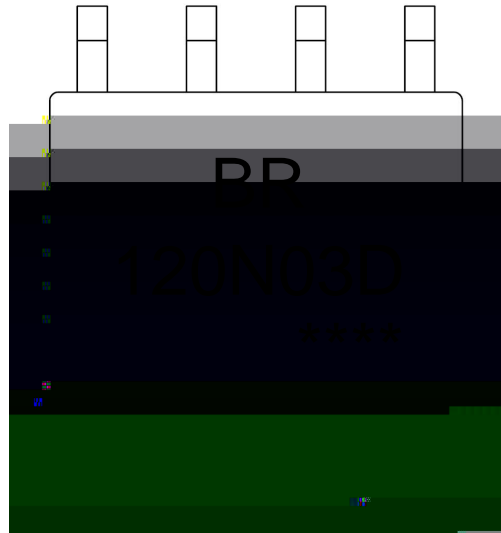


Figure 9: Normalized Maximum Transient Thermal Impedance





BR

120N03D

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Note:

BR: Company Code

120N03D: Product Type Code

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

