/ Descriptions

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

/ Features

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.

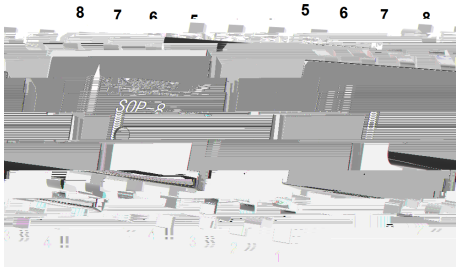
/ Applications

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.

/ Equivalent Circuit



/ Pinning



PIN1 S1 PIN 2 G1 PIN 3 S2 PIN 4 G2
PIN 5 D2 PIN 6 D2 PIN 7 D1 PIN 8 D1

/ Marking

See Marking Instructions.

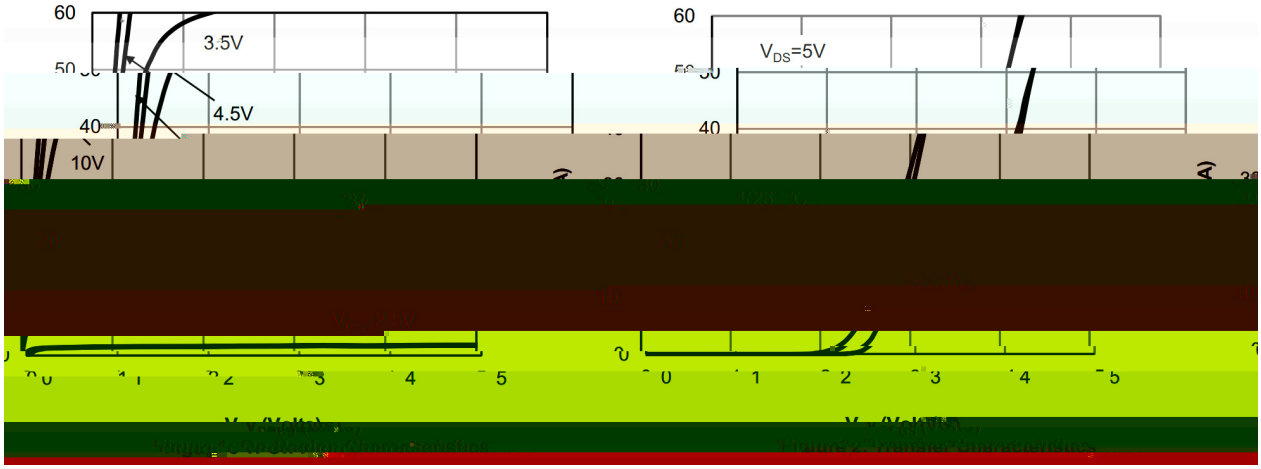
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	30	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D	12.3	A
Pulsed Drain Current	I_{DM}	46.5	A
Power Dissipation	P_D	3	W
Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150	
Maximum Junction-to-Ambient	R $_{JA}$(Steady-State)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

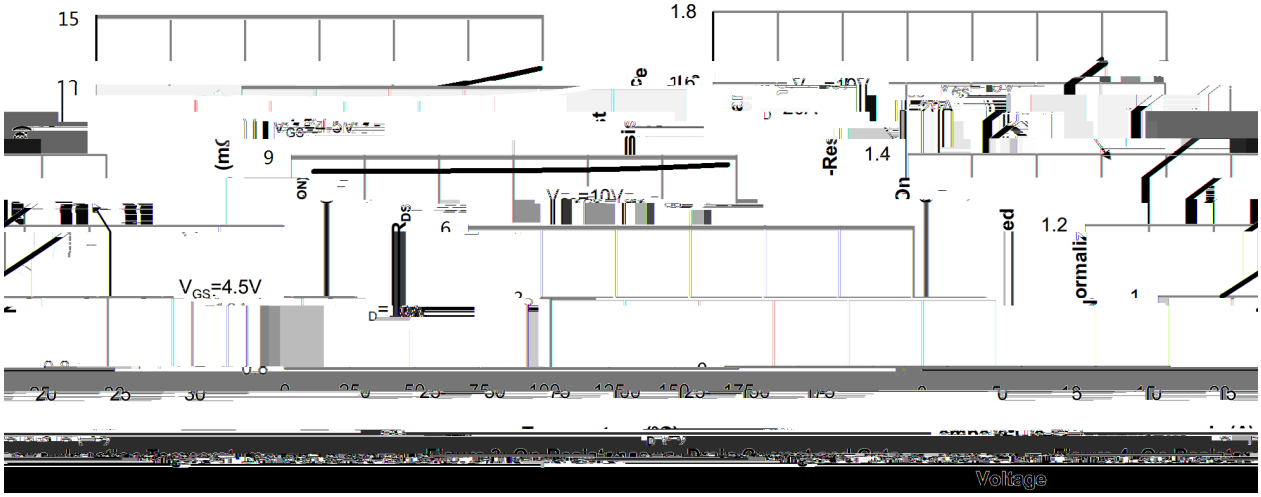
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	30	36.5		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=30V V_{GS}=0V			1	A
Gate-Body leakage current	I					

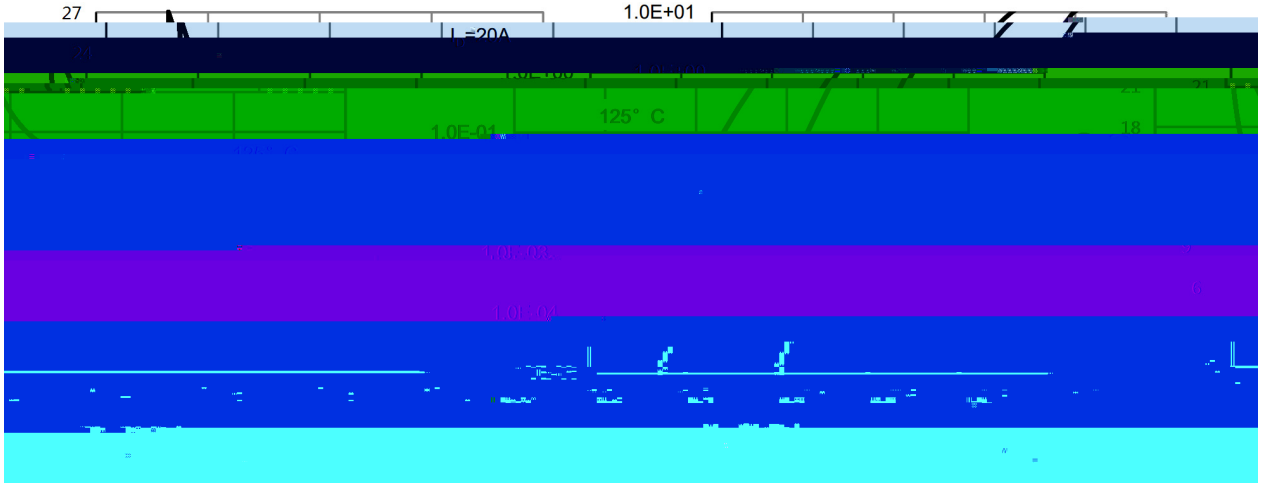
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{DS}=15 V V_{GS}=10V 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

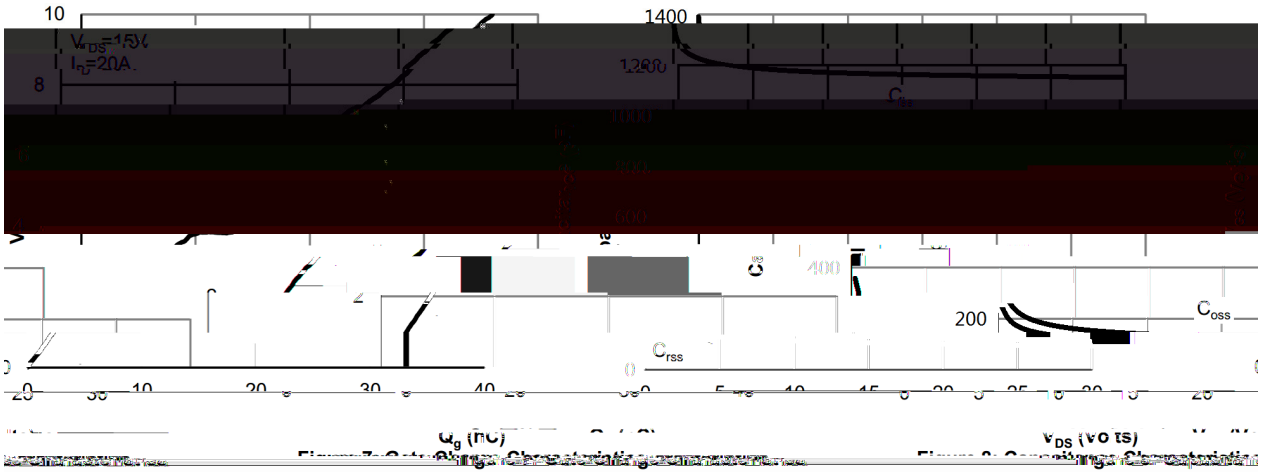
/ Electrical Characteristic Curve

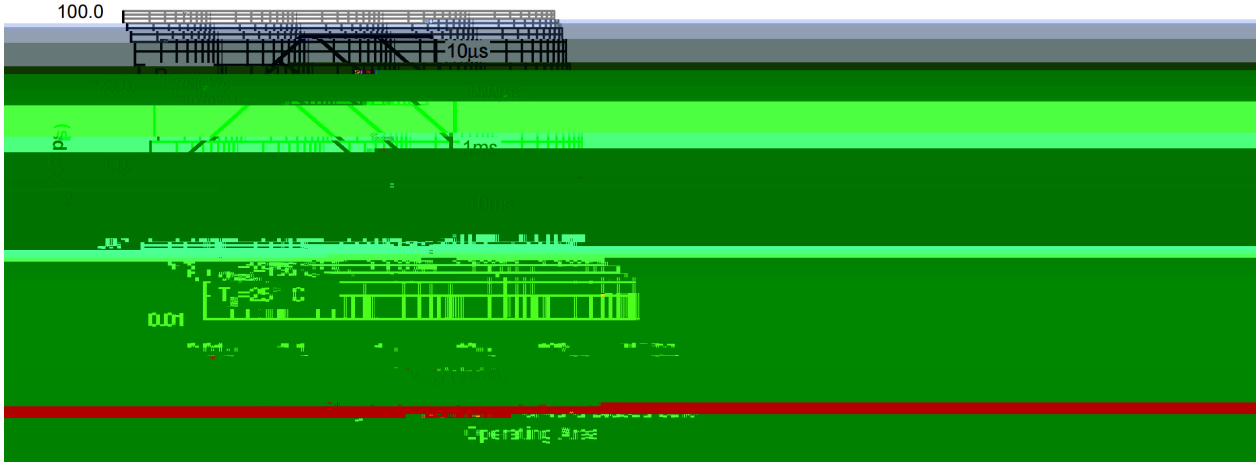






/ Electrical Characteristic Curve





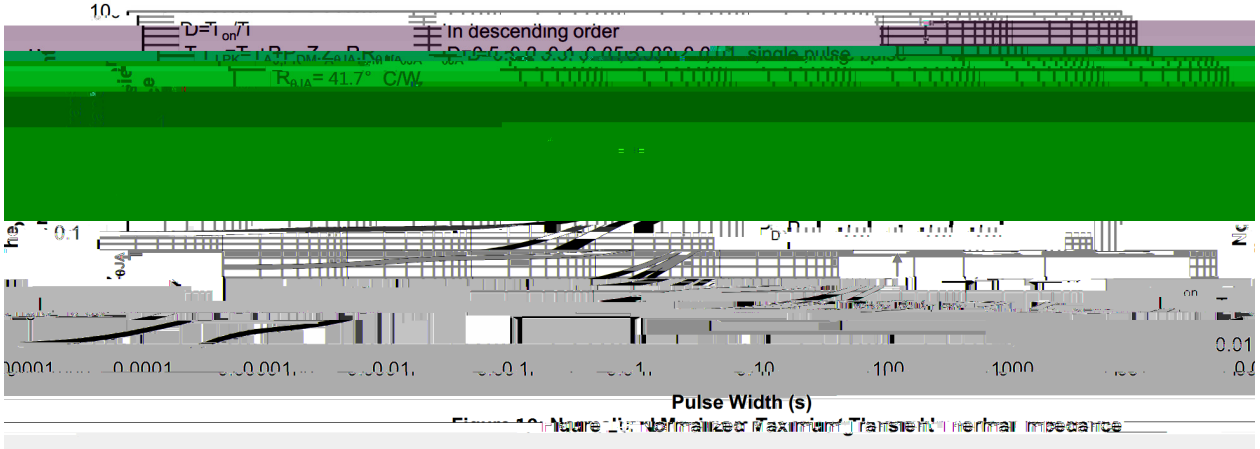
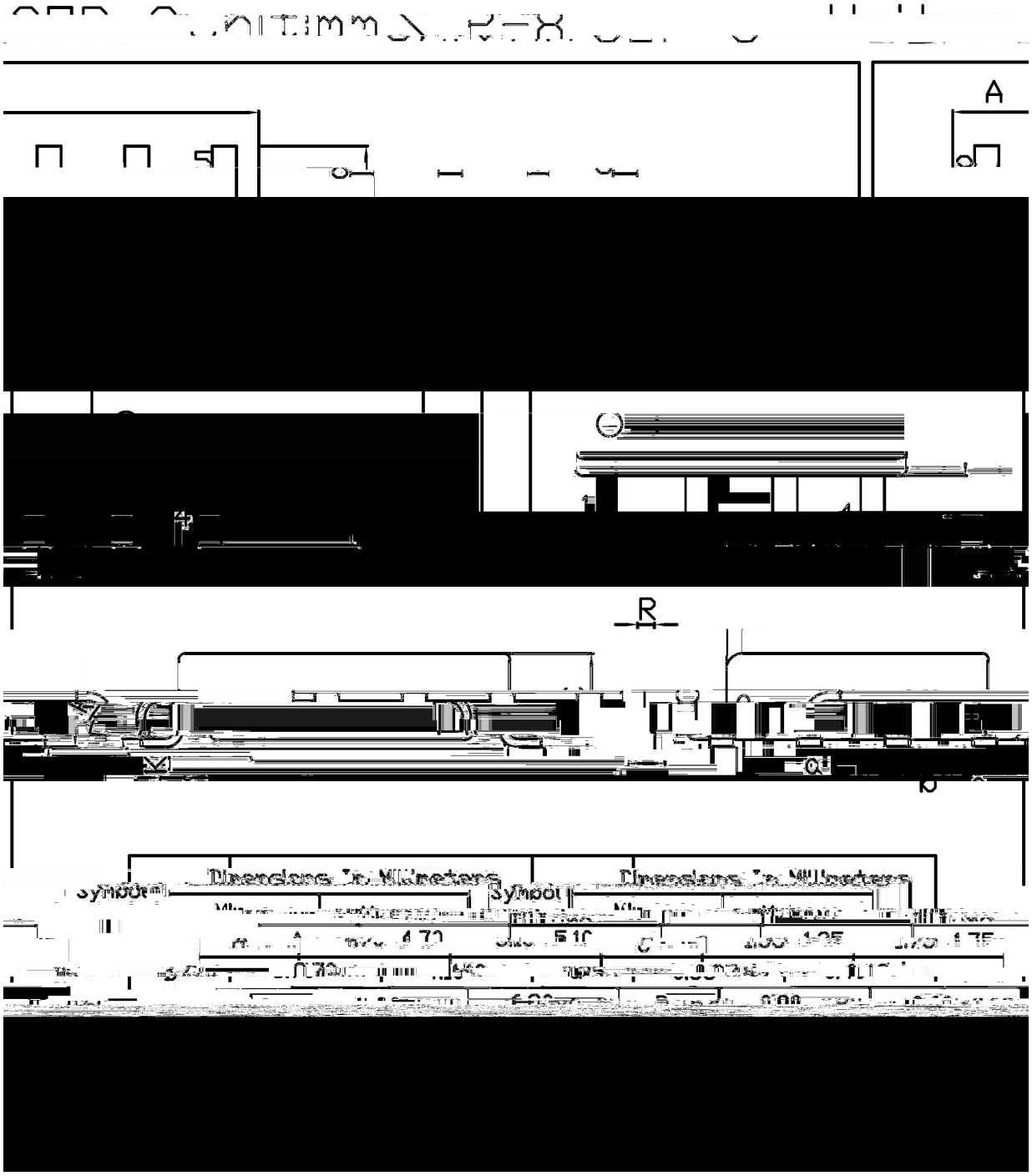
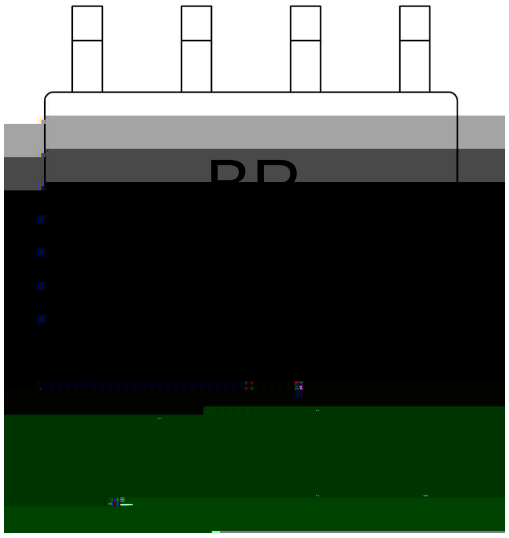


Figure 10. Normalized Maximum Transient Thermal Impedance

/ Package Dimensions



/ Marking Instructions



BR

120N03D

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Note:

BR:	Company Code
120N03D:	Product Type Code
****:	Lot No. Code, code change with Lot No