onsemi

Silicon Carbide (SiC) MOSFET - EliteSiC, 960 mohm, 1700 V, M1, TO-247-3L

NTHL1000N170M1

Features

- Typ. $R_{DS(on)} = 960 \text{ m}\Omega$
- Ultra Low Gate Charge (typ. $Q_{G(tot)} = 14 \text{ nC}$)
- Low Effective Output Capacitance (typ. $C_{oss} = 11 \text{ pF}$)
- •

THERMAL RESISTANCE MAXIMUM RATINGS

Parameter	Symbol	Max	Unit
Junction-to-Case - Steady State (Note 1)	$R_{ extsf{ heta}JC}$	3.1	°C/W

ELECTRICAL CHARACTERISTICS (T_J = 25° C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Тур	Max	Unit
OFF CHARACTERISTICS						
Drain-to-Source Breakdown Voltage	V _{(BR)DSS}	$V_{GS} = 0 V$, $I_D = 1 mA$	1700			V
Drain-to-Source Breakdown Voltage Temperature Coefficient	V _{(BR)DSS} /T _J	$I_D = 1 \text{ mA}, \text{ referenced to } 25^{\circ}\text{C}$ 1700				



TYPICAL CHARACTERISTICS

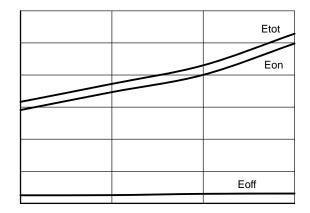
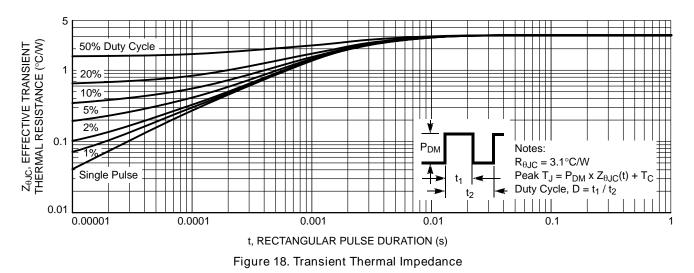


Figure 7. Transfer Characteristics

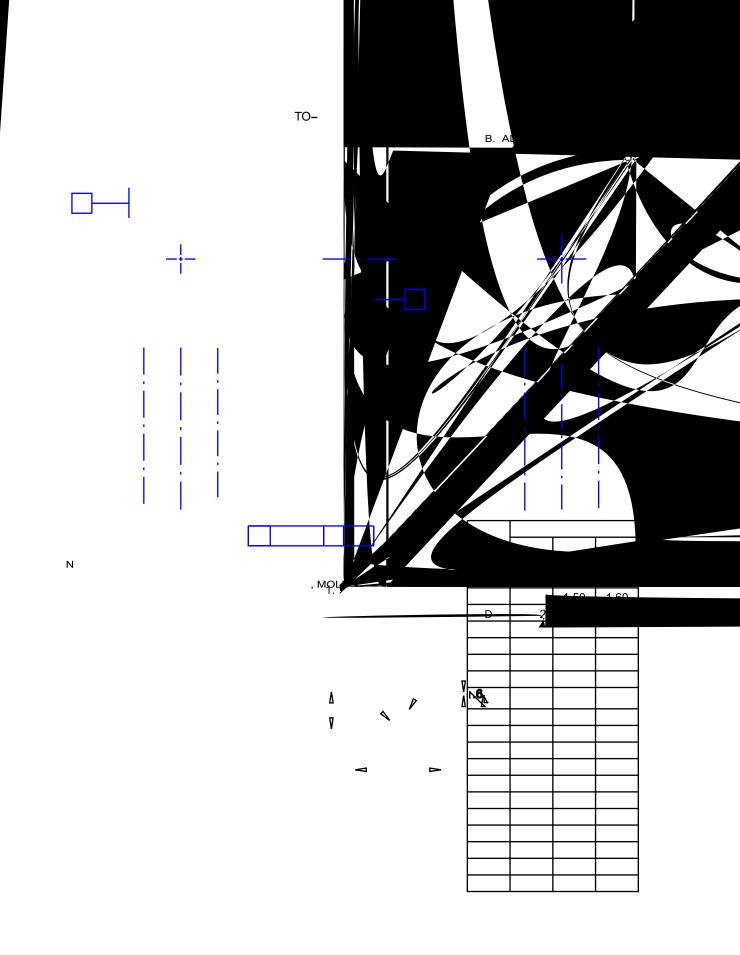
Figure 8. Switching Loss vs. Drain Current

Figure 9. Switching Loss vs. Drain Current



ESD RATINGS

ESD Test	Classification	Standard
ESD-HBM	0B (125 V to <250 V)	ANSI/ESDA/JEDEC JS-001
ESD-CDM	C3 (>1000 V)	ANSI/ESDA/JEDEC JS-002



onsemi, , and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "onsemi" or its affiliates and/or subsidiaries in the United States and/or other countries. onsemi owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of onsemi's product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. Onsemi reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and onsemi makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or incruit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using onsemi