Silicon Carbide (SiC) MOSFET … EliteSiC, 65 mohm, 1200 V, M3S, D2PAK-7L

NVBG070N120M3S

Features

- Typ. $R_{DS(on)}$ = 65 m @ V_{GS} = 18 V
- Ultra Low Gate Charge ($Q_{G(tot)}$ = 57 nC)
- High Speed Switching with Low Capacitance (C_{oss} = 57 pF)
- 100% Avalanche Tested
- AEC ïQ101 Qualified and PPAP Capable
- This Device is Halide Free and RoHS Compliant with exemption 7a, PbïFree 2LI (on second level interconnection)

Typical Applications

- Automotive On Board Charger
- Automotive DC/DC Converter for EV/HEV

MAXIMUM RATINGS (T_J = 25°C unless otherwise noted)

Parameter		Symbol	Value	Unit
Drain ïto ïSource Voltage		V_{DSS}	1200	V
Gate ïto ïSource Voltage		V_{GS}	ï10/+22	V
Recommended Operation Values of Gate ïto ïSource Voltage	T_C < 175°C			

THERMAL CHARACTERISTICS

Parameter	Symbol	Max	Unit
Junction ïto ïCase ï			

TYPICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS

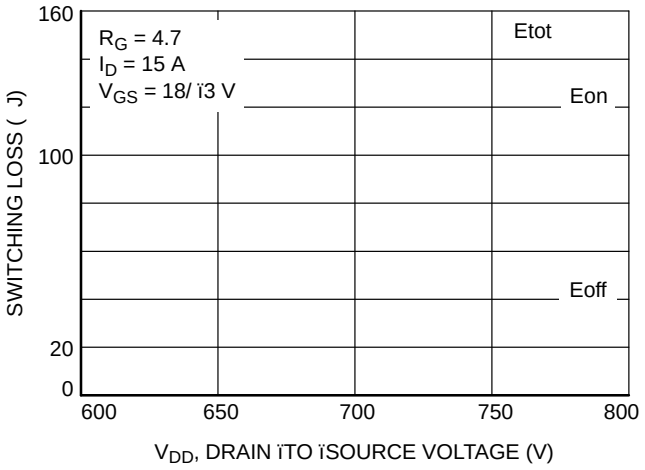

Figure 7. Switching Loss vs. Drain ïto ïSource Voltage

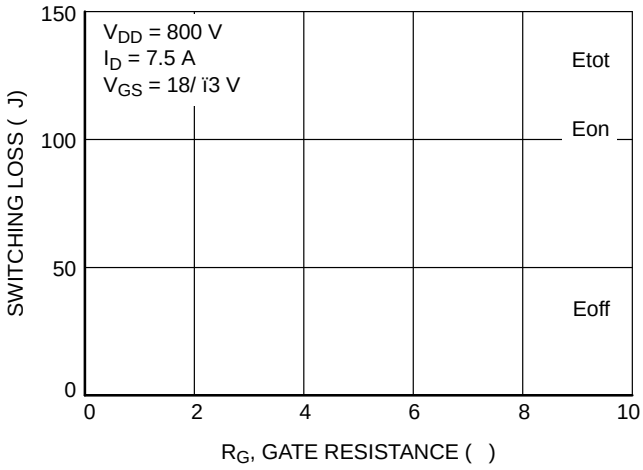

Figure 8. Switching Loss vs. Gate Resistance

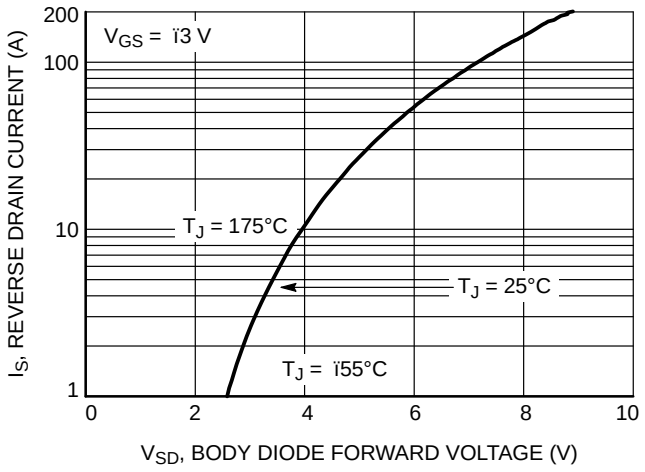

Figure 9. Reverse Drain Current vs. Body Diode Forward Voltage

Figure 10. Gate ïto ïSource Voltage vs. Total Charge

Figure 11. Capacitance vs. Drain ïto ïSource Voltage

Figure 12. Unclamped Inductive Switching Capability

TYPICAL CHARACTERISTICS

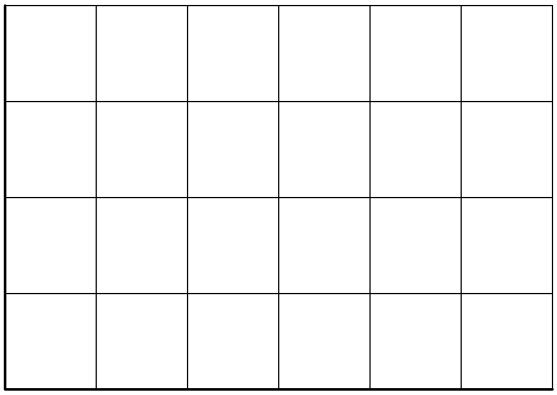

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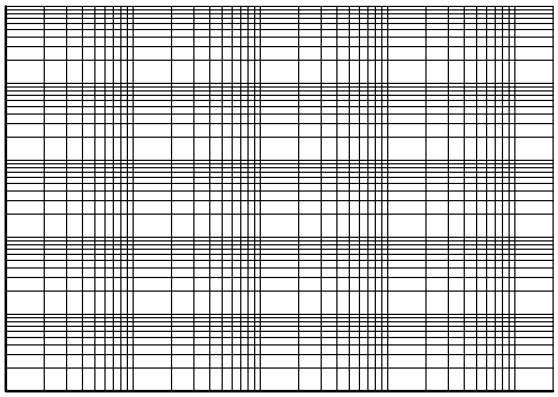
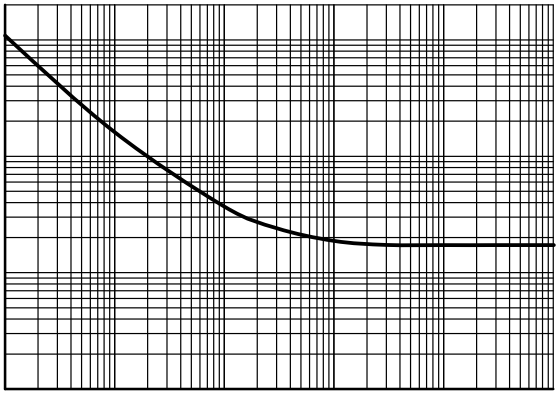
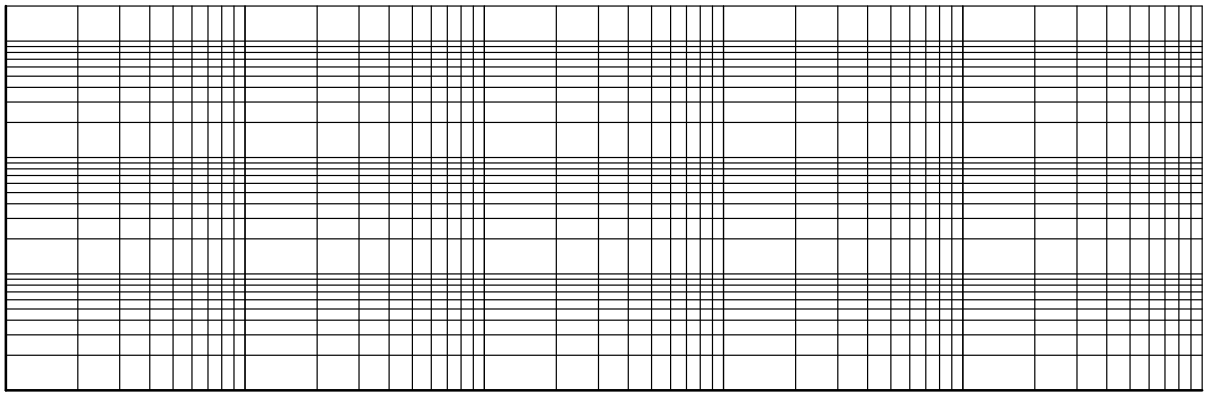
Figure 13. Maximum Continuous Drain Current vs. Case Temperature







PACKAGE DIMENSIONS

D^{2}PAK7 (TO ï263 ï7L HV)
CASE 418BJ
ISSUE B