Silicon Carbide (SiC) MOSFET – EliteSiC, 160 mohm, 1200 V, M1, D2PAK-7L

NTBG160N120SC1

Features

- Typ. $R_{DS(on)}$ = 160 mΩ
- Ultra Low Gate Charge (typ. $Q_{G(tot)}$ = 33.8 nC)
- Low Effective Output Capacitance (typ. C_{oss} = 50.7 pF)
- 100% Avalanche Tested
- T_J = 175°C
- This Device is Halide Free and RoHS Compliant with exemption 7a, Pb Free 2LI (on second level interconnection)

Typical Applications

- UPS
- DC-DC Converter
- Boost Inverter

MAXIMUM RATINGS (T_J

Table 1. THERMAL CHARACTERISTICS

Parameter	Symbol	Max	Unit

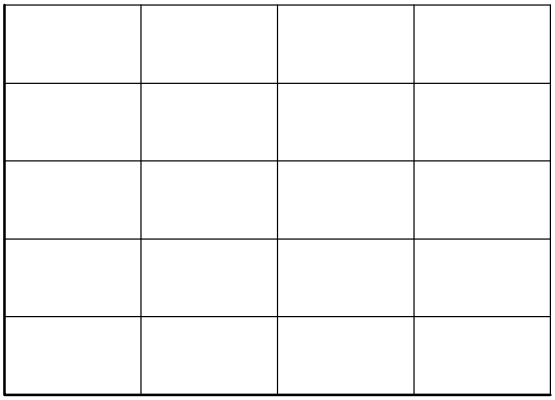
Table 2. ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise stated) (continued)

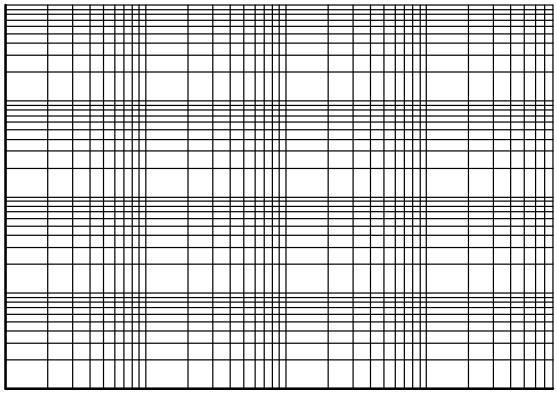
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
DRAIN−SOURCE DIODE CHARACTERISTICS						
Reverse Recovery Time	t_{RR}	V_{GS} = −5/20 V, I_{SD} = 16 A, dI_S/dt = 1000 A/μs		15		ns
Reverse Recovery Charge	Q_{RR}			47		nC
Reverse Recovery Energy	E_{REC}			3.9		μJ
Peak Reverse Recovery Current	I_{RRM}			6.6		A
Charge Time	Ta			7.0		ns
Discharge Time	Tb			7.4		ns

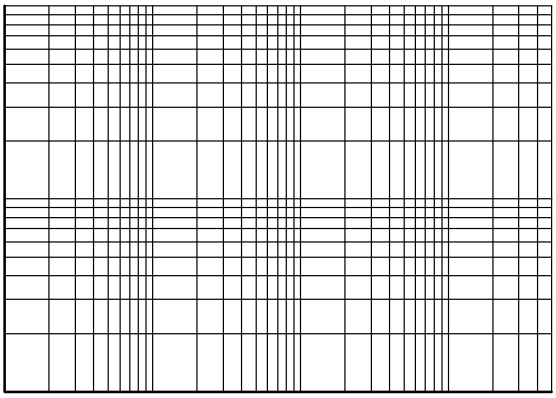
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product

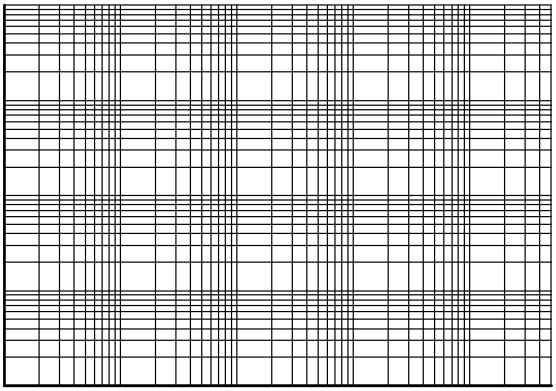
TYPICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS (continued)





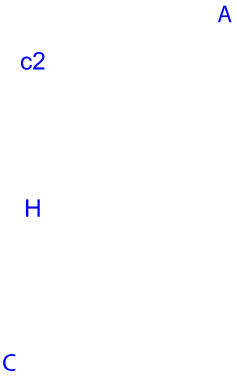




TYPICAL CHARACTERISTICS (continued)

D^{2}PAK7 (TO−263−7L HV)
CASE 418BJ
ISSUE B

DATE 16 AUG 2019



GENERIC
MARKING DIAGRAM*

XXXX = Specific Device Code
A = Assembly Location
Y = Year
WW = Work Week
G = Pb−Free Package

*This information is generic. Please refer to device data sheet for actual part marking. Pb−Free indicator, “G” or microdot “▪”, may or may not be present. Some products may not follow the Generic Marking.