[redacted]

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Drain-Source Voltage | VDS | 40 | V |
| Gate-Source Voltage | $V_{GS}$ | ±20 | V |
| | $I_D$(Tc=25 ) | 300 A | |
| | D(Tc=100 ) 300 | W | |
| | DM(Tc=25 ) 1200 | A | |
| Power Dissipation | $P_D$(Tc=25 ) 375 | W | |
| Operating and Storage Temperature Range | TJ,Tstg | -55 to 175 | |
| | (Tc=25 )300 A | | |
| | DD=40V,L=1.0mH) $E_{AS}$ | 1512 | mJ |
| [redacted] | θJA | 60 | |
| Thermal resistance, junction – case | | | |

[redacted]

[2] pad area, t ≤ 10 sec 2. Pulse width ≤ 300 μs, duty cycle ≤ 2 % 3. limited by bonding wi

[redacted]

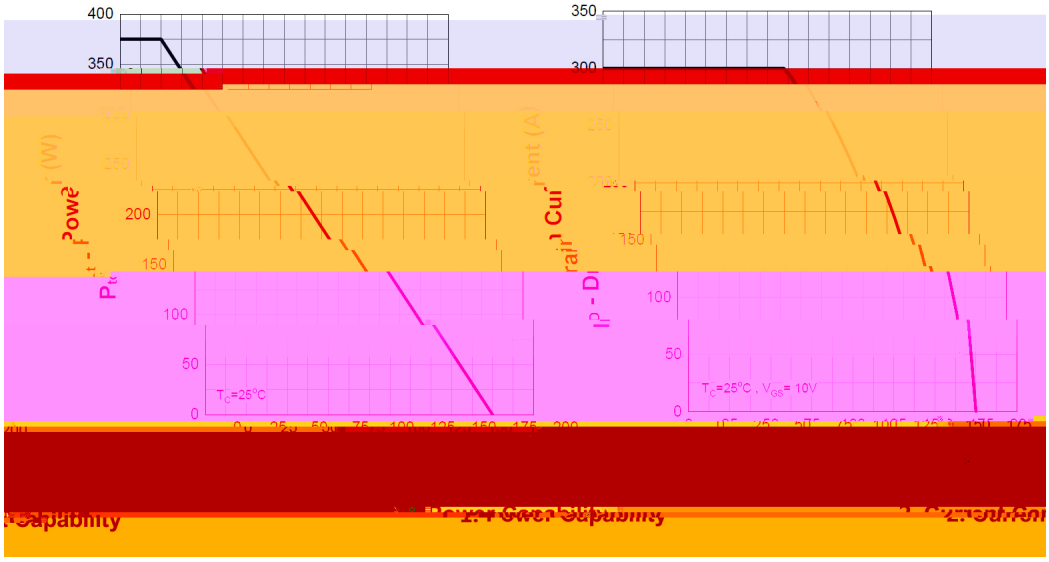
[redacted]

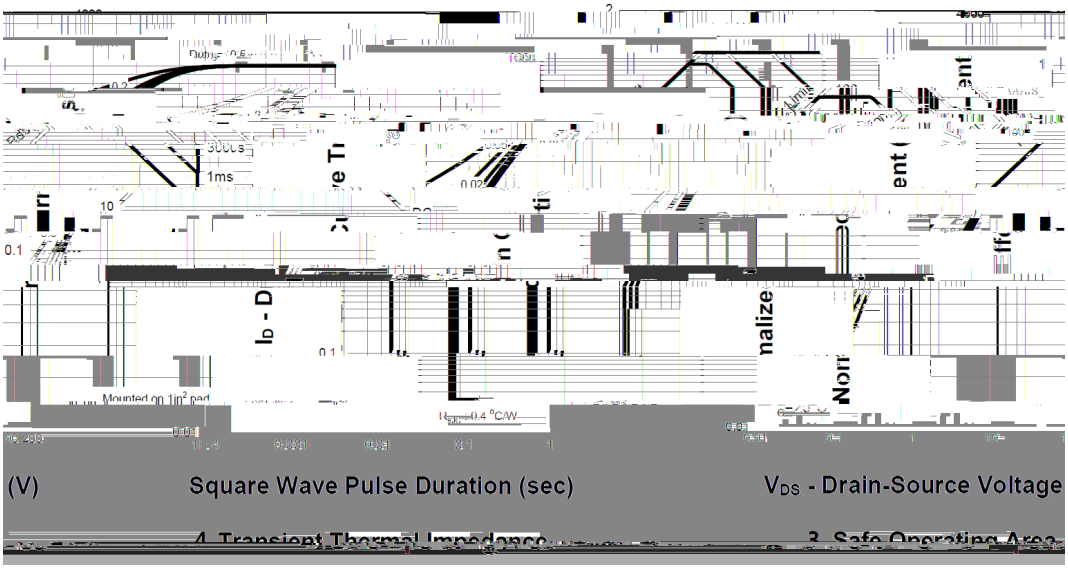
| Parameter | Symbol | Test Conditions | | Min | Typ | |
|---|---|---|---|---|---|---|
| Drain-Source Breakdown Voltage | BV | $V_{GS}$=0V | $I_D$=250μA | 40 | | V |
| | GS(th) | V DS=V GS | I D=250μA | 1.0 | 2.0 | V |
| [redacted] | | =32V | VGS=0V | | 1 | μA |
| | GSS | GS=±20V | $V_{DS}$=0V | | ±0.1 | μA |
| [redacted] | | ID=30A | 0.75 | 0.85 | mΩ | |
| On-Resistance | | VGS=4.5V | ID=20A | 1.15 | 1.45 | mΩ |
| Drain-Source Diode Forward | SD | $V_{GS}$=0V | $I_S$=30A | | 1.3 | V |
| | | = 30 A, VGS= 0 V dI | 33 | nS | | |
| | rr | SD/dt = 100 A/μs | 21 | nC | | |
| Input Capacitance | $C_{iss}$ | | | 14406 | | pF |
| Output Capacitance | $C_{oss}$ | VDS=20V VGS=0V | | 1043 | | |
| Reverse Transfer Capacitance | Crss | f=1.0MHz | | 369 | | |

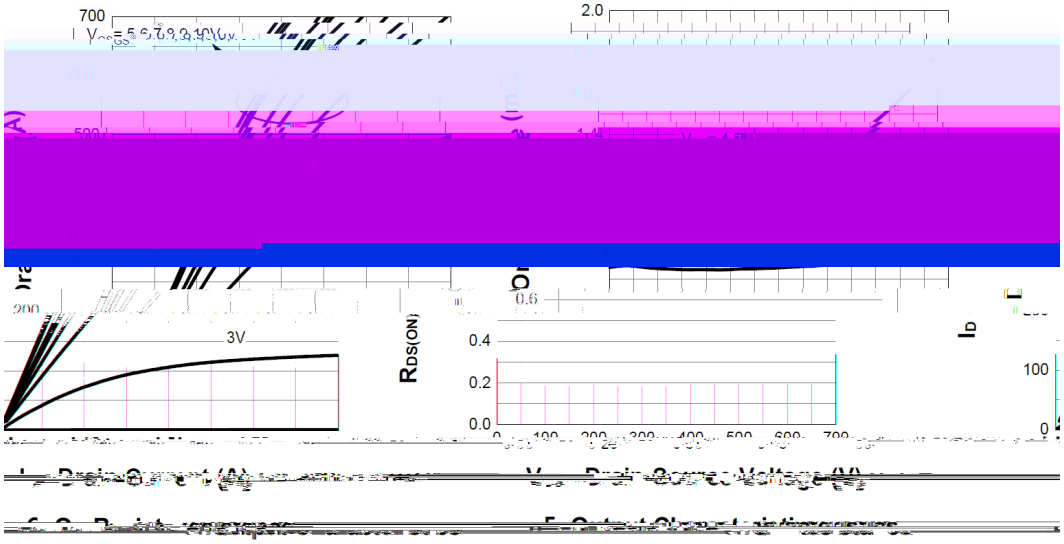


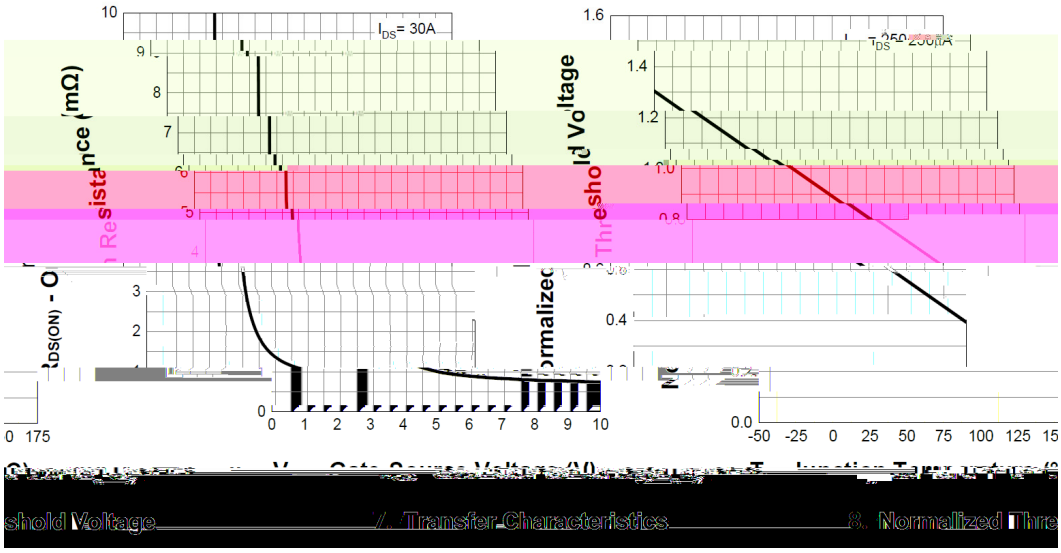
[redacted]

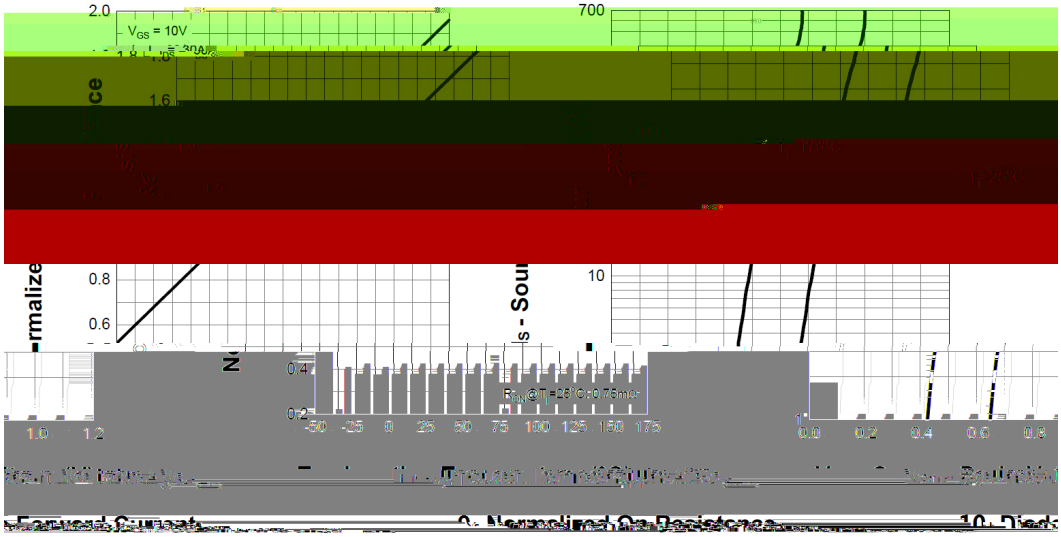
Parameter

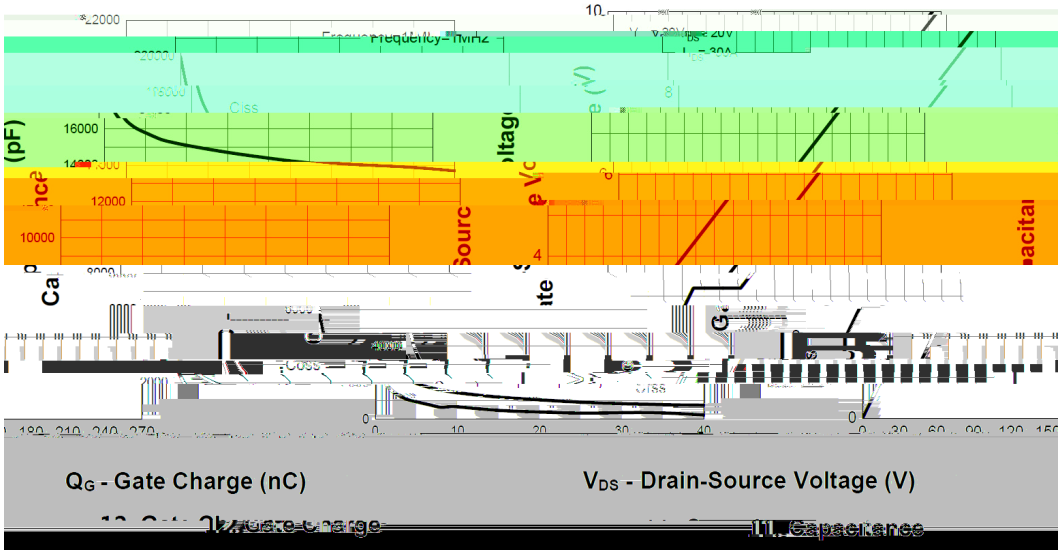

400
350
200
150
100
50
0
350
300
150
100
50
0
$T_C$=25°C
$T_C$=25°C , $V_{GS}$= 10V

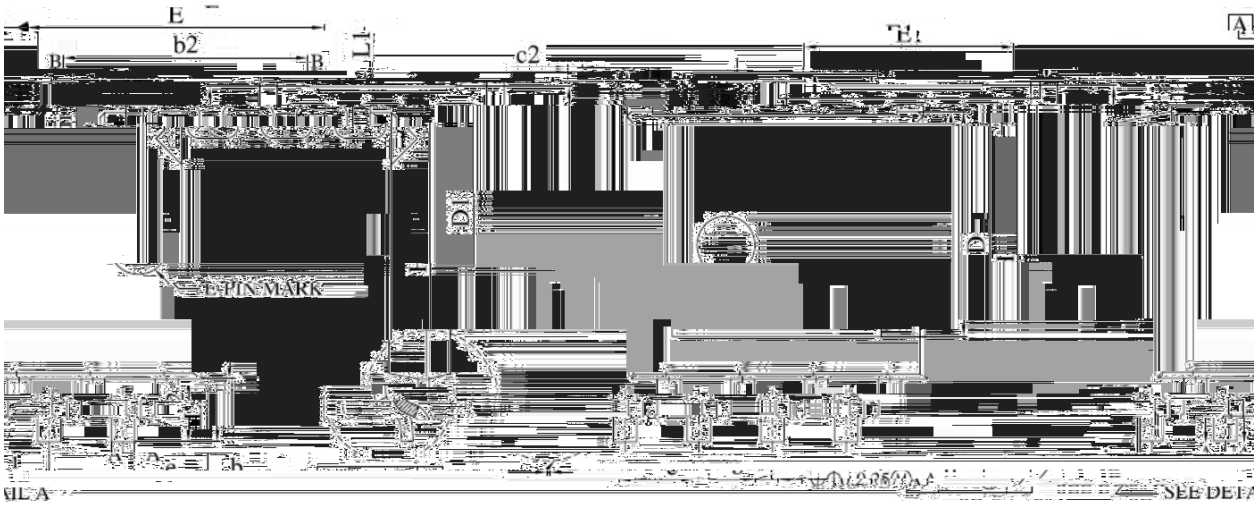

1ms
$I_D$ - D
Mounted on 1in² pad
0.4 °C/W
(V)
Square Wave Pulse Duration (sec)
$V_{DS}$ - Drain-Source Voltage

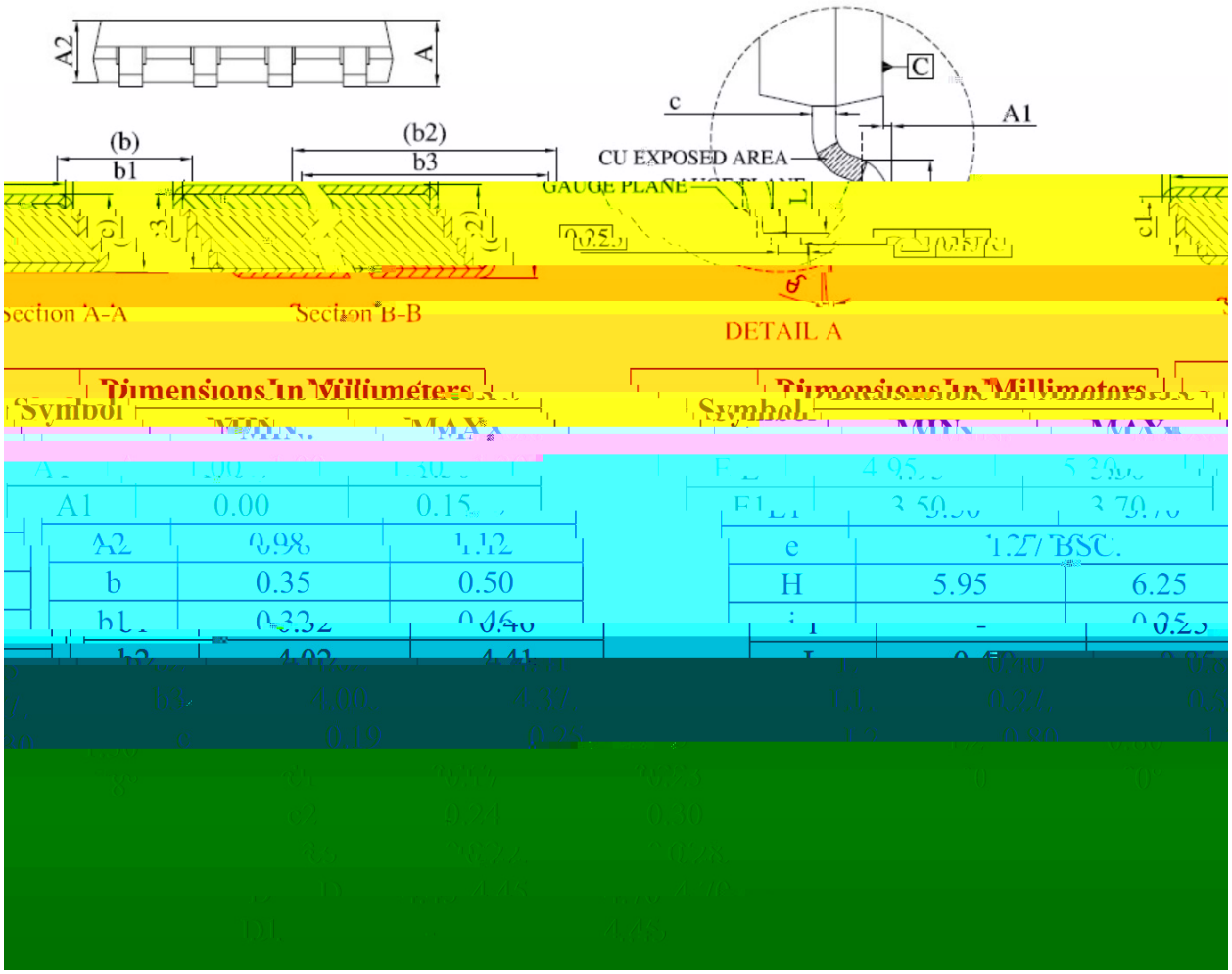

700
2.0
3V
$R_{DS(ON)}$
0.6
0.4
0.2
0.0
$I_D$
100
0


I_DS = 30A
Transfer Characteristics
Normalized Thre


V_GS = 10V


Q_G - Gate Charge (nC)
V_DS - Drain-Source Voltage (V)


E
b2
B1
B
c2
E1
A
D1
D
PIN MARK
SEE DETA


A2
A
(b)
b1
(b2)
b3
c
C
A1
CU EXPOSED AREA
GAUGE PLANE
L
L1
c1
θ
Section A-A
Section B-B
DETAIL A
Dimensions In Millimeters
Symbol
MIN.
MAX.
A1
0.00
0.15
A2
0.98
1.12
b
0.35
0.50
b1
0.32
0.46
Dimensions In Millimeters
Symbol
MIN.
MAX.
e
1.27 BSC.
H
5.95
6.25
L
-
0.25

BR

008N04S

****

Note

| | |
|---|---|
| BR: | Company Code |
| 008N04S: | Product Type Code |
| ****: | Lot No. Code, code change with Lot No. |