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Table 14

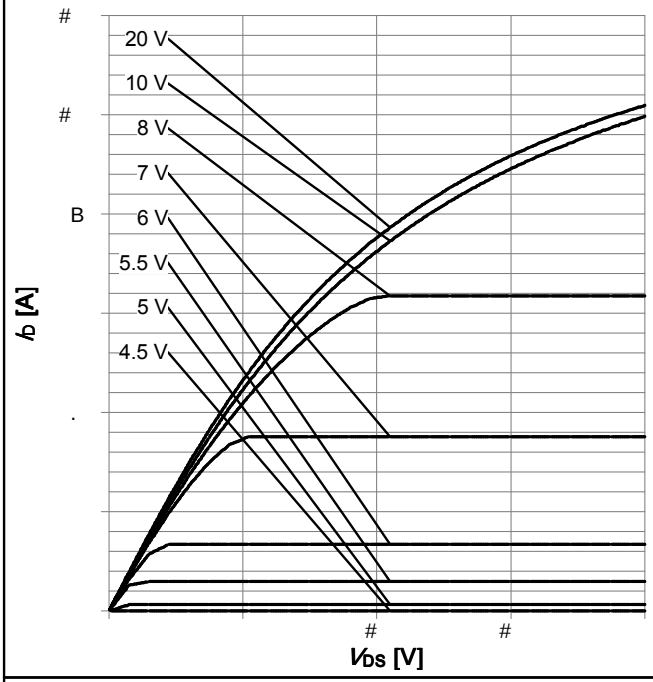
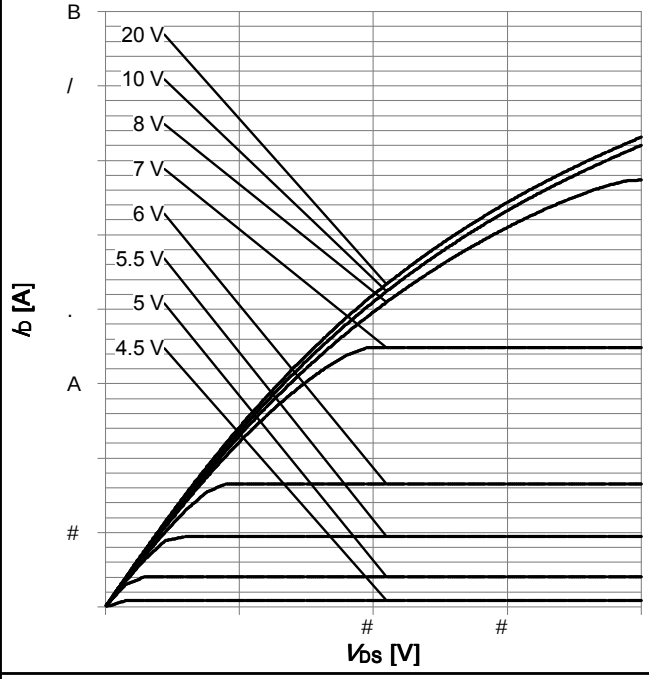
Typ. output characteristics T_C=25°C	Typ. output characteristics T_C=125°C
	
I_D=f(V_{DS}); T_j=25 °C; parameter: V_{GS}	I_D=f(V_{DS}); T_j=125 °C; parameter: V_{GS}

Table 15

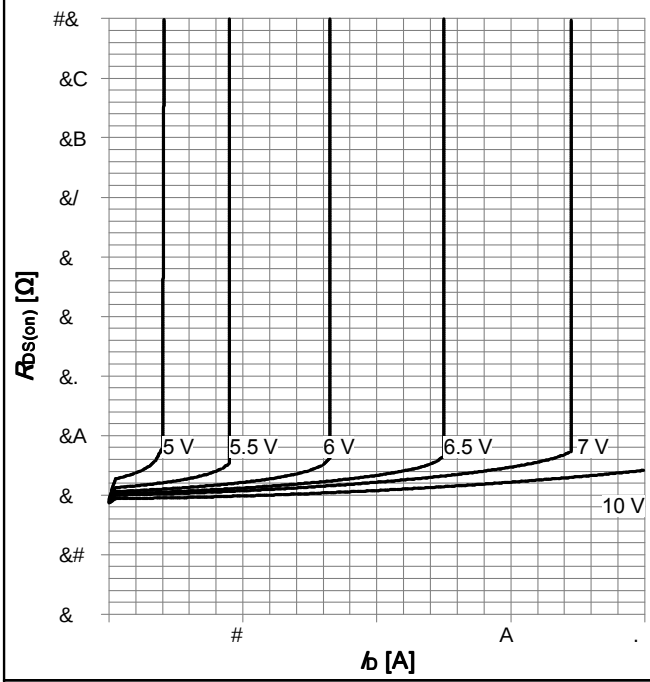
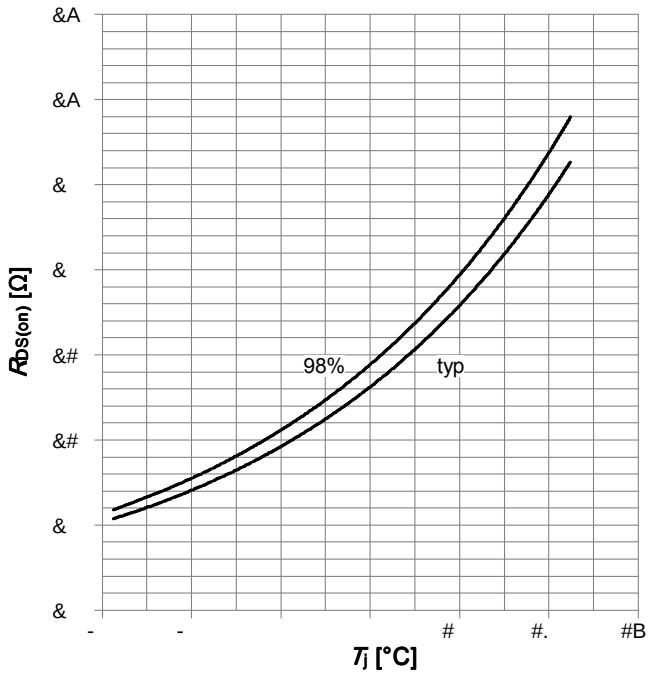
Typ. drain-source on-state resistance	Drain-source on-state resistance
	
$R_{DS(on)}$=f(I_D); T_j=125 °C; parameter: V_{GS}	$R_{DS(on)}$=f(T_j); I_D=18.1 A; V_{GS}=10 V

Table 16

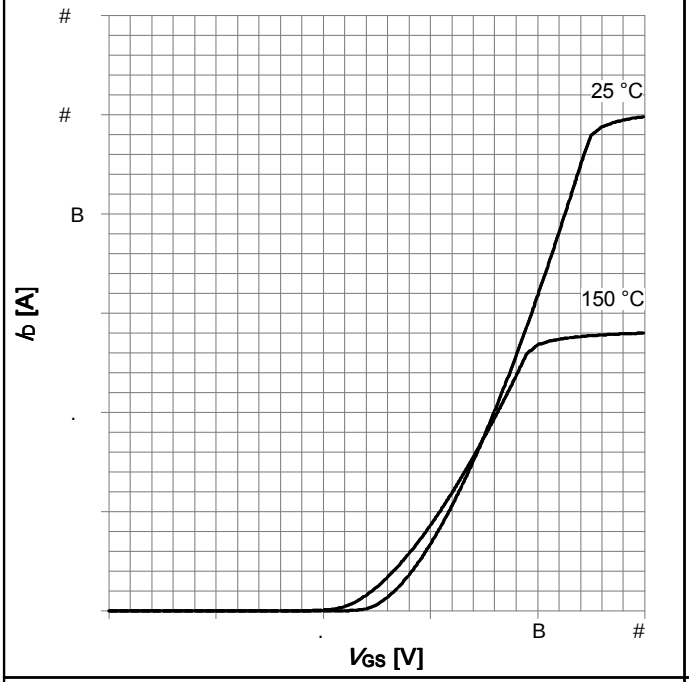
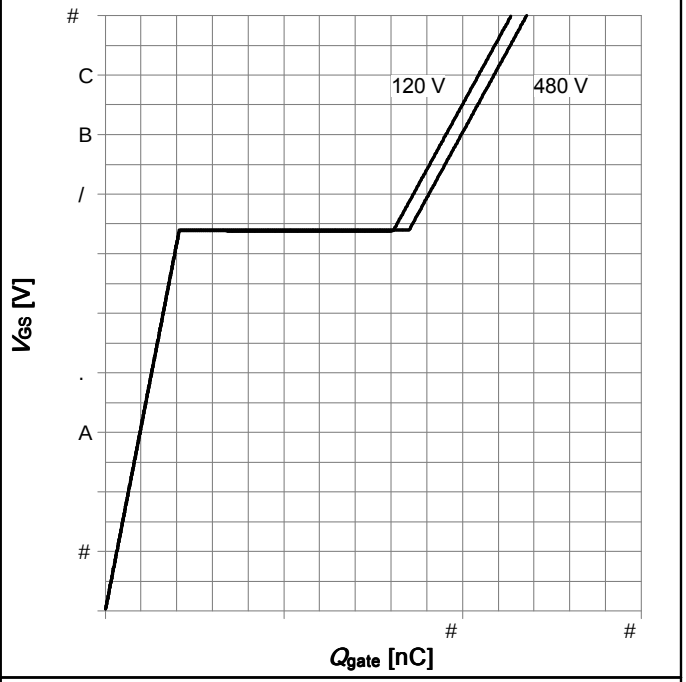
Typ. transfer characteristics	Typ. gate charge
	
I_D=f(V_{GS}); |V_{DS}|=20V;	V_{GS}=f(Q_{gate}); I_D=19.2 A pulsed; parameter: V_{DD}

Table 17

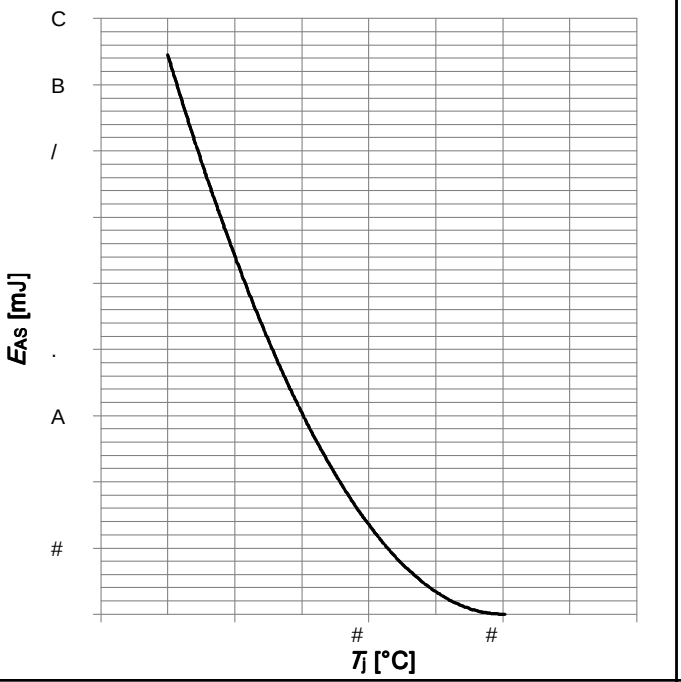
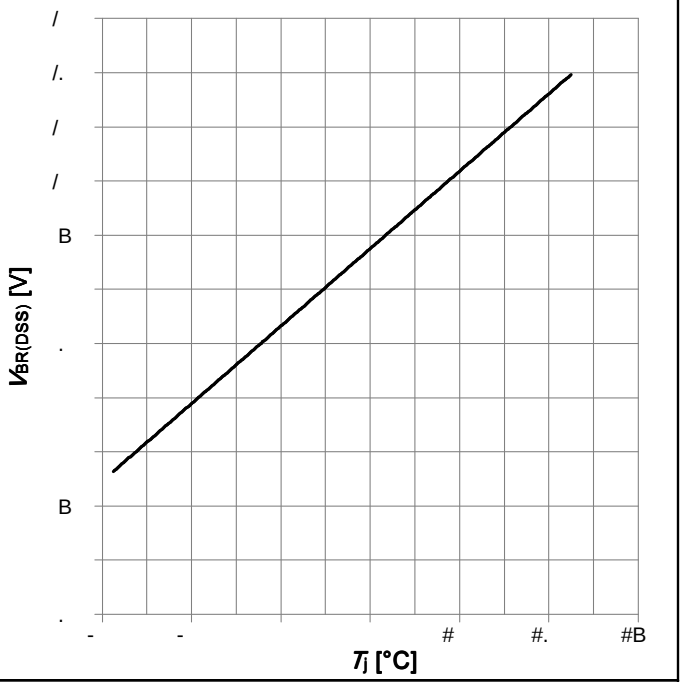
Avalanche energy	Drain-source breakdown voltage
	
E_{AS}=f(T_j); I_D=6.2 A; V_{DD}=50 V	$V_{BR(DSS)}$=f(T_j); I_D=10 mA

Table 18

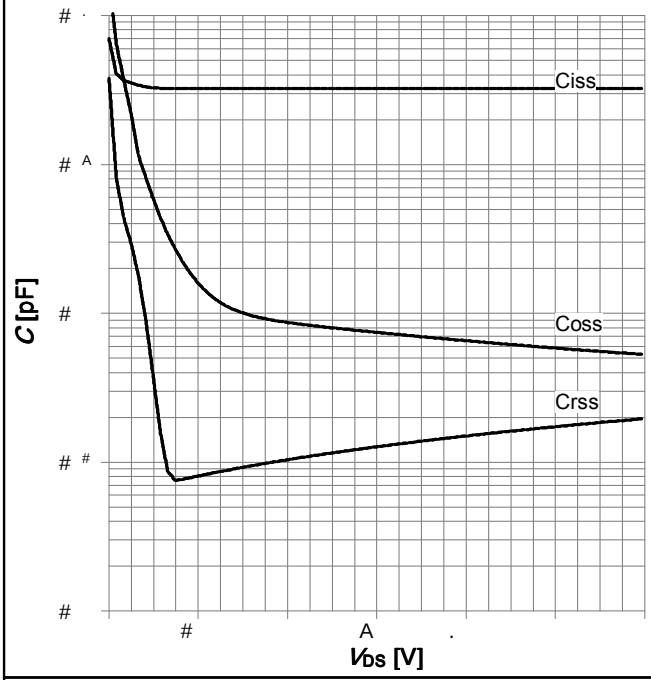
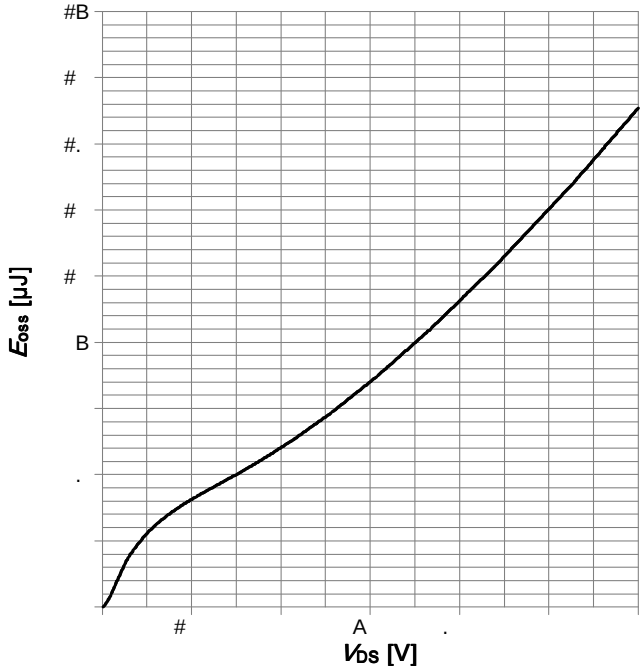
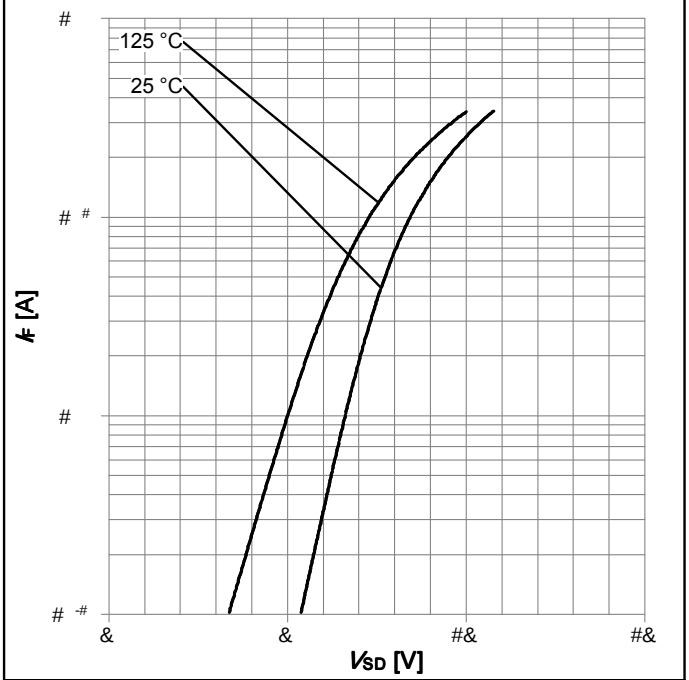
Typ. capacitances	Typ. C_{oss} stored energy
	
C=f(V_{DS}); V_{GS}=0 V; f=1 MHz	E_{oss}=f(V_{DS})

Table 19

Forward characteristics of reverse diode

I_F=f(V_{SD}); parameter: T_j

6 Test Circuits

Table 20 Diode_characteristics

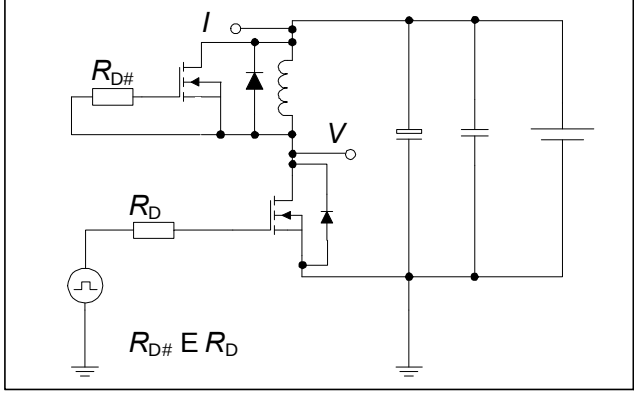
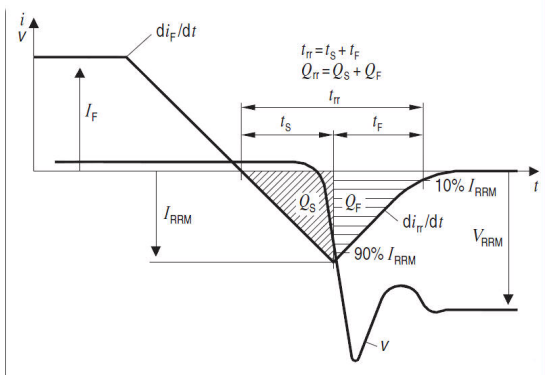
$	% 2 %
	

Table 21 Switching_times

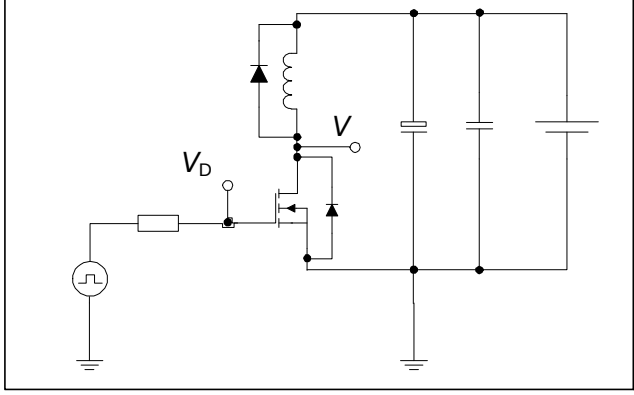
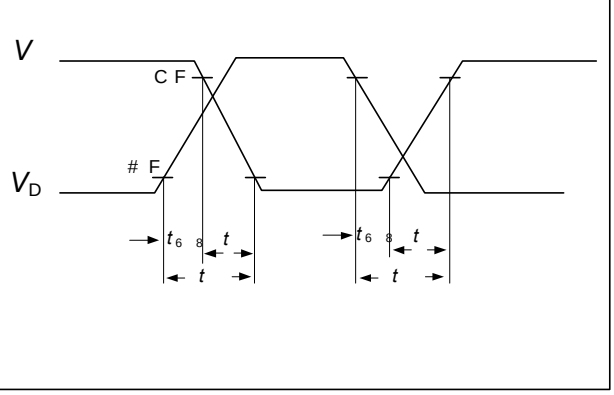
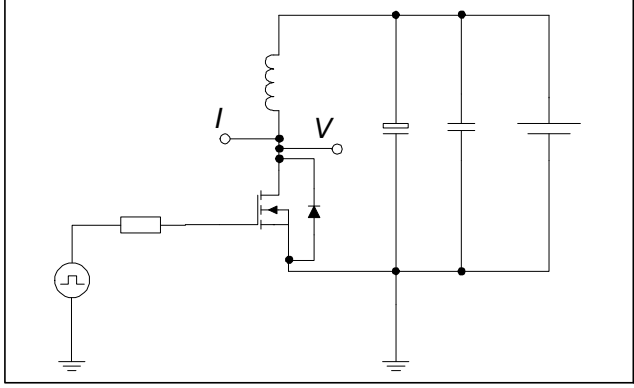
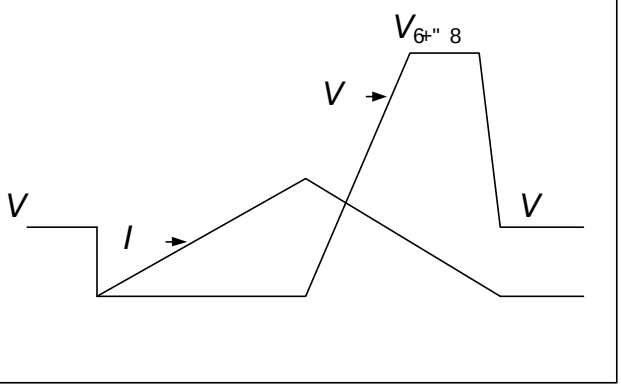
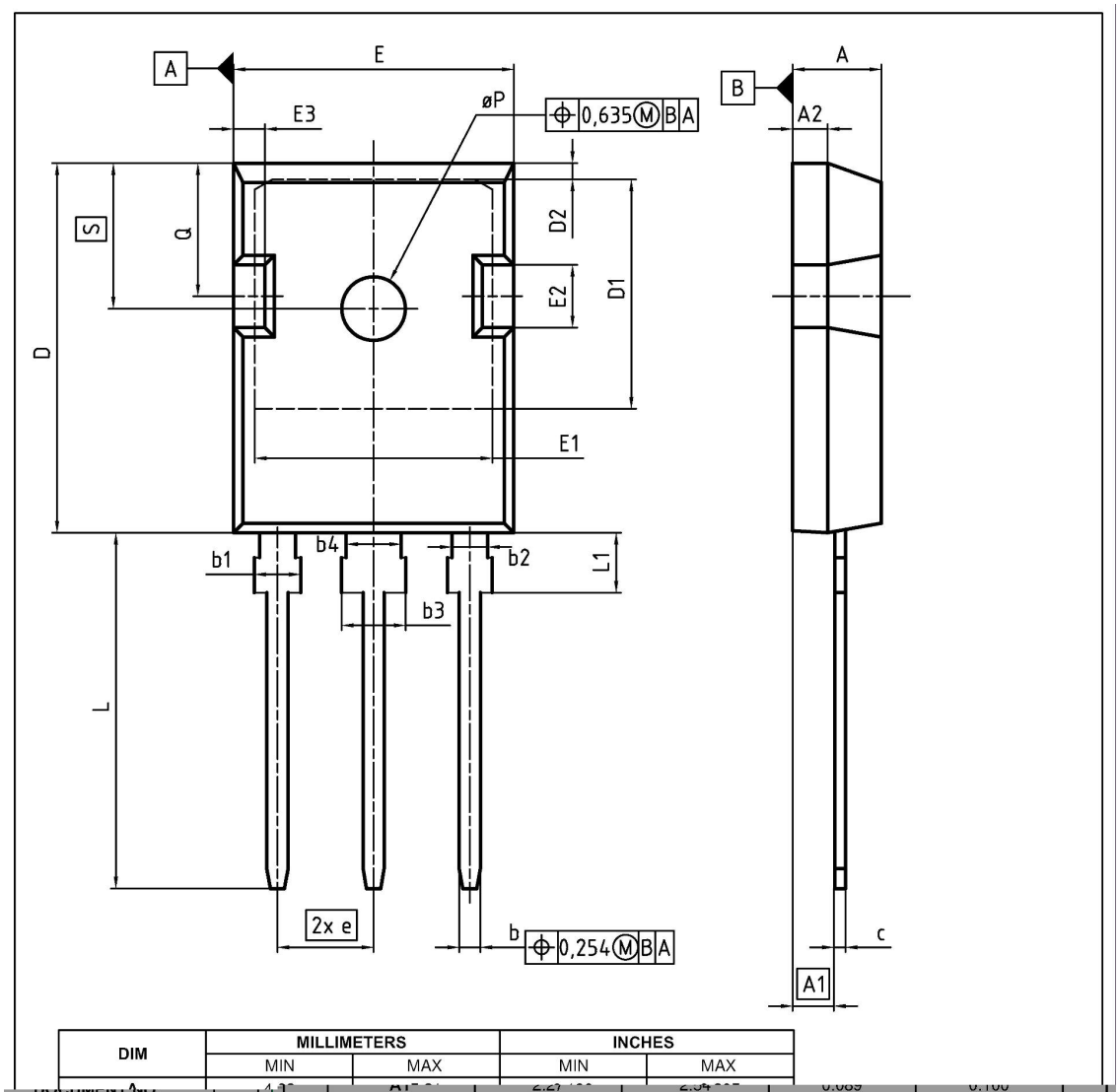
$ 3 %	$ 3 %
	

Table 22 Unclamped_inductive

; 4 %	; 4 % %
	

7 Package Outlines



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.83	5.21	0.190	0.205
A1	2.27	2.54	0.089	0.100
A2	1.85	2.16	0.073	0.085
b	1.07	1.33	0.042	0.052
b1	1.90	2.41	0.075	0.095
b2	1.90	2.16	0.075	0.085
b3	2.87	3.38	0.113	0.133
b4	2.87	3.13	0.113	0.123
c	0.55	0.68	0.022	0.027
D	20.80	21.10	0.819	0.831
D1	16.25	17.65	0.640	0.695
D2	0.95	1.35	0.037	0.053
E	15.70	16.13	0.618	0.635
E1	13.10	14.15	0.516	0.557
E2	3.68	5.10	0.145	0.201
E3	1.00	2.60	0.039	0.102
e	5.44 (BSC)		0.214 (BSC)	
N	3		3	
L	19.80	20.32	0.780	0.800
L1	4.10	4.47	0.161	0.176
øP	3.50	3.70	0.138	0.146
Q	5.49	6.00	0.216	0.236
S	6.04	6.30	0.238	0.248

DOCUMENT NO.
Z8B00003327

SCALE
0 5 5 7.5mm

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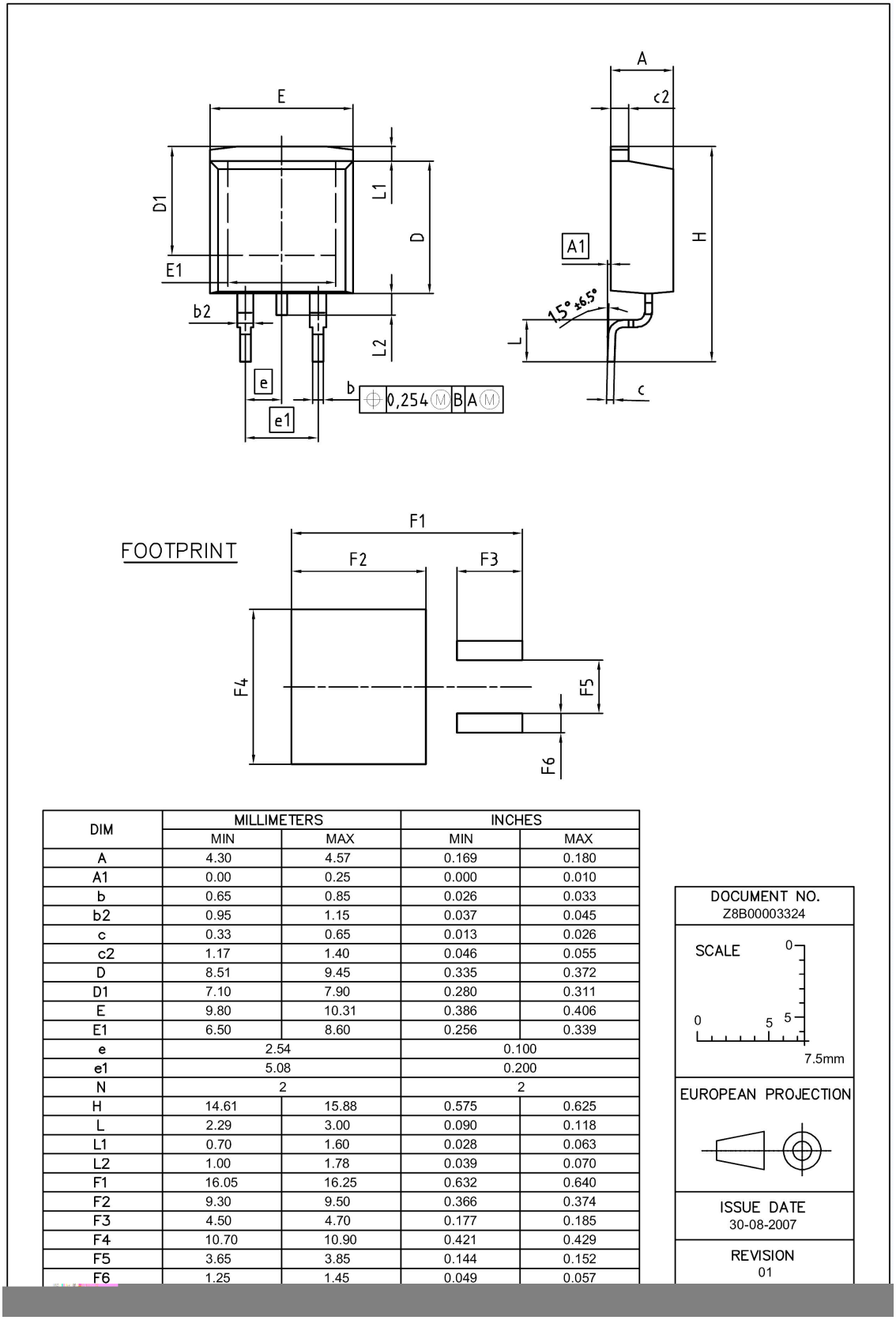
09-07-2010

REVISION
05

Figure 1 Outline PG-TO 247, dimensions in mm/inches



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.30	4.57	0.169	0.180
A1	0.00	0.25	0.000	0.010
b	0.65	0.85	0.026	0.033
b2	0.95	1.15	0.037	0.045
c	0.33	0.65	0.013	0.026
c2	1.17	1.40	0.046	0.055
D	8.51	9.45	0.335	0.372
D1	7.10	7.90	0.280	0.311
E	9.80	10.31	0.386	0.406
E1	6.50	8.60	0.256	0.339
e	2.54		0.100	
e1	5.08		0.200	
N	2		2	
H	14.61	15.88	0.575	0.625
L	2.29	3.00	0.090	0.118
L1	0.70	1.60	0.028	0.063
L2	1.00	1.78	0.039	0.070
F1	16.05	16.25	0.632	0.640
F2	9.30	9.50	0.366	0.374
F3	4.50	4.70	0.177	0.185
F4	10.70	10.90	0.421	0.429
F5	3.65	3.85	0.144	0.152
F6	1.25	1.45	0.049	0.057

DOCUMENT NO.
Z8B00003324

SCALE 0 5 5 0
7.5mm

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ISSUE DATE
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REVISION
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Figure 2 Outline PG-TO 263, dimensions in mm/inches

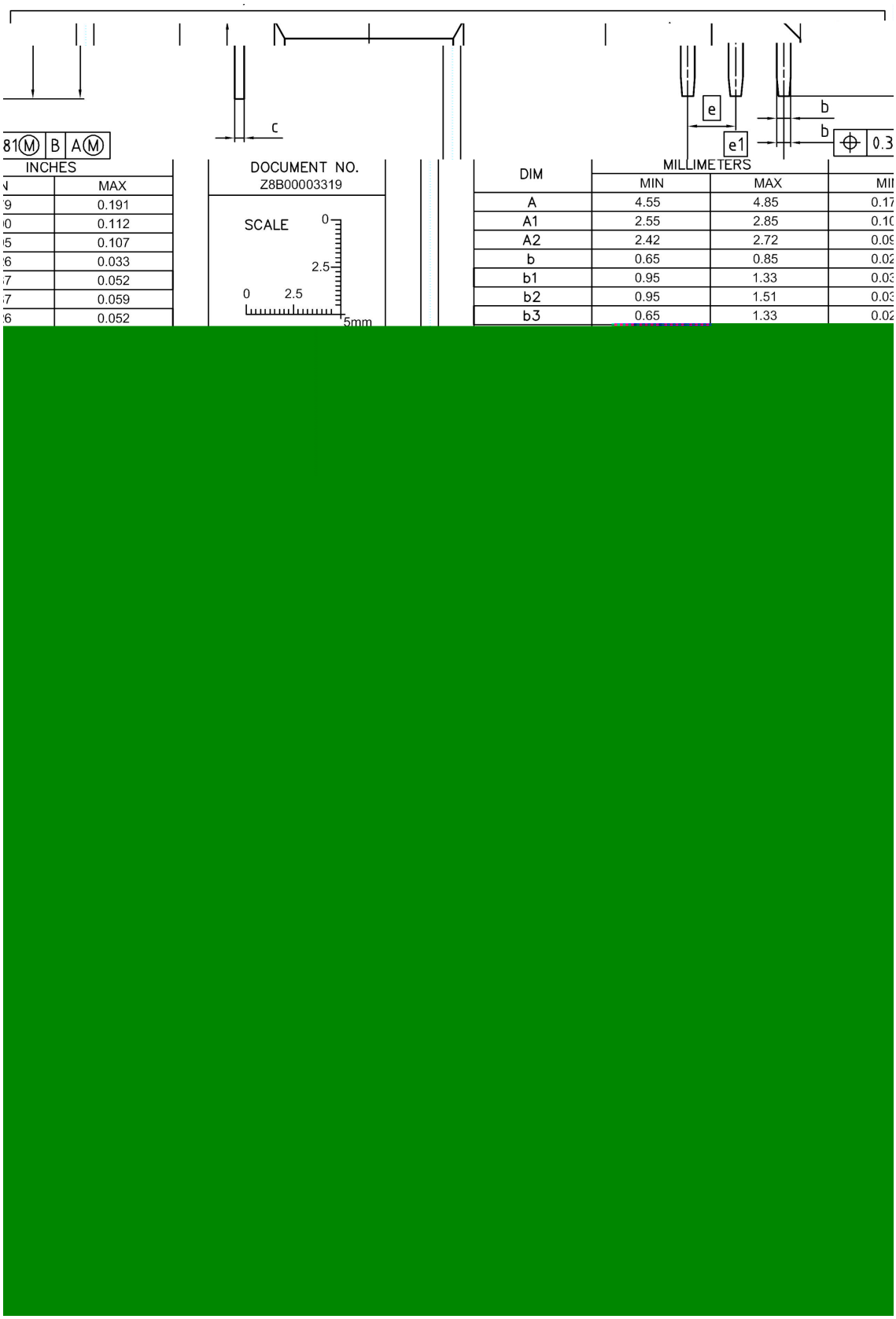

Figure 4 Outline PG-TO 220 FullPAK, dimensions in mm/inches

8 Appendix A

Table 23 Related Links

- **IFX Design Tools:**
  $ 4G>> & & > > >4 >4 4 3 > 3 > &$
- **IFX CoolMOS Webpage:**
  $ 4G>> & & > > >4 > $ &$ H $ E B B B## 9 B# ## 9 B/ . B

Revision History

IPW65R110CFD, IPB65R110CFD, IPP65R110CFD, IPA65R110CFD, IPI65R110CFD

Revision: 2011-09-26, Rev. 2.6

Previous Revision

Revision	Date	Subjects (major changes since last revision)
2.1	2011-06-07	Release the final datasheet
2.2	2011-06-22	-
2.3	2011-08-30	update to CFD2 standard
2.4	2011-09-14	update pin naming
2.5	2011-09-16	release of new pin naming
2.6	2011-09-26	update the Igss test condition

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