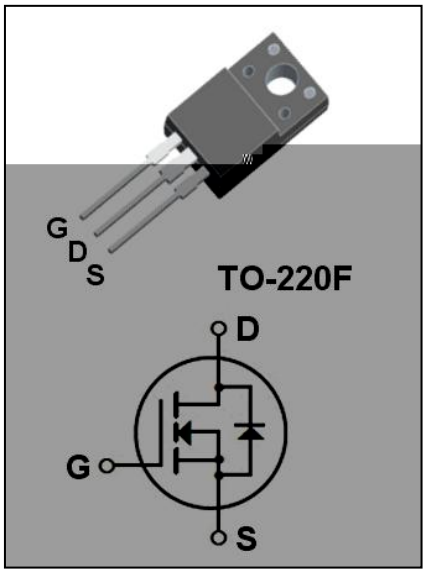
- :
  - 7.0A, 700V, $R_{DS(on)(T\ p)}$ =1.2 @V_{GS}=10V
  - Lo Ga e Charge
  - Lo C_r
  - 100% A alanche Te ed
  - Fa S i ching
  - Impro ed d /d Capabili
-
  - High Freq enc S i ching Mode Po er S ppl
  - Ac i e Po er Fac or Correc ion



(Tc=25°C nle o her i e no ed)

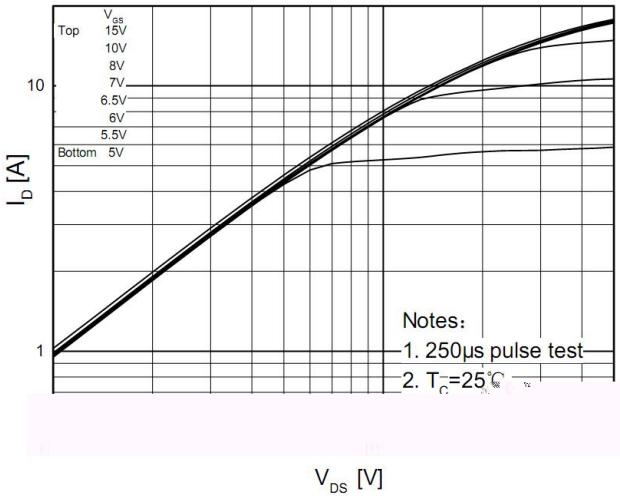
S mbol	Parame er	Val e	Uni
V_{DSS}	Drain-So rce Vol age	700	V
I_D	Drain C rren - Con in o (Tc=25°C)	7.0*	A
	- Con in o (Tc=100°C)	4.5*	A
I_{DM}	Drain C rren -P l ed (No e1)	28*	A
V_{GSS}	Ga e-So rce Vol age	±30	V
E_{AS}	Single P l ed A alanche Energ (No e2)	590	mJ
I_{AR}	A alanche C rren (No e1)	7.0	A
E_{AR}	Repe i i e A alanche Energ (No e1)	14.0	mJ
d /d	Peak Diode Reco er d /d (No e3)	4.5	V/n
P_D	Po er Di ipa ion(T_C =25°C)	48	W
	-Dera e abo e 25 C	0.38	W/°C
Tj	Opera ing J nc ion Tempera re	150	°C
T g	S orage Tempera re Range	-55 o+150	°C

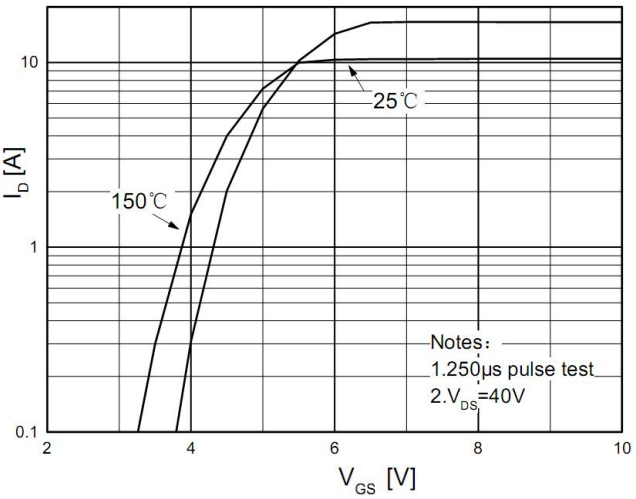
Drain C rren Limi ed b Ma im m J nc ion Tempera re.

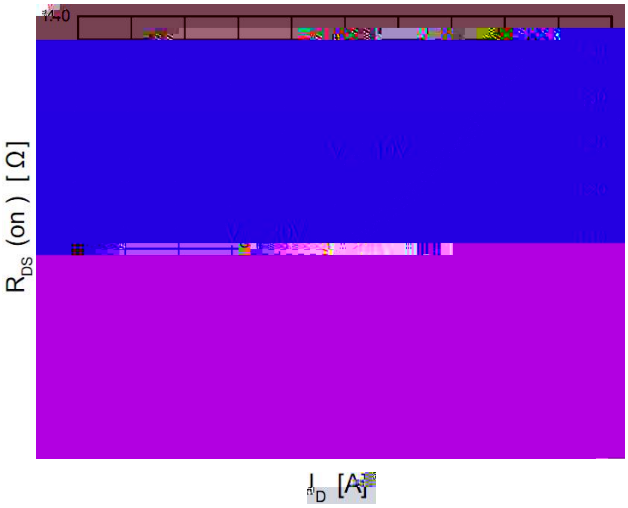
S mbol	Parame er	Ma	Uni
R_{JC}	Thermal Re i ance,J nc ion o Ca e	2.6	°C /W
R_{JA}	Thermal Re i ance,J nc ion o Ambien	62.5	°C /W

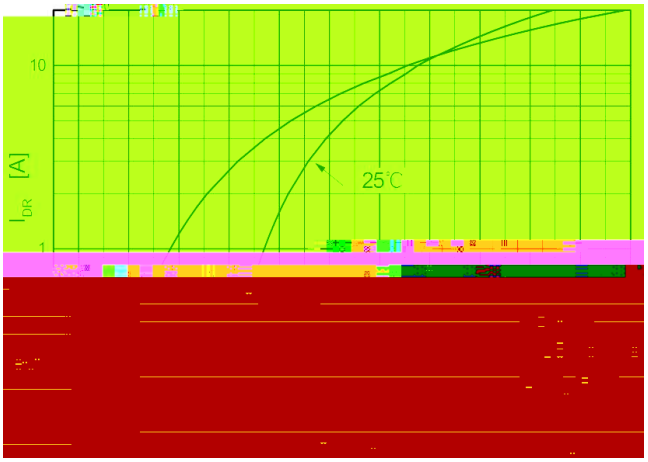
(Tc=25°C nle o her i e no ed)

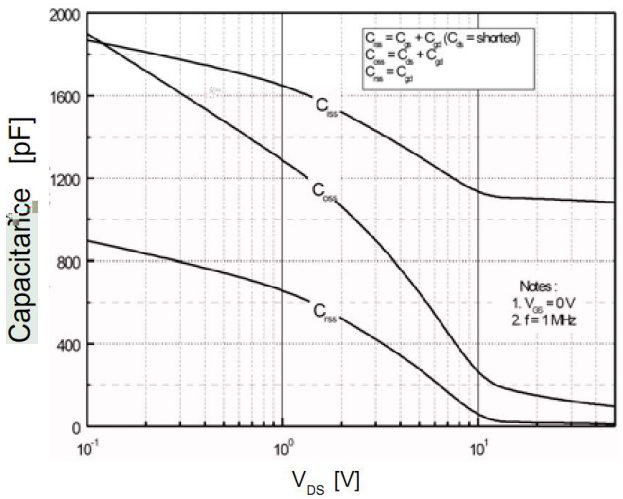
S mbol	Parame er	Te Condi on	Min	T p	Ma	Uni
BV_{DSS}	Drain- o rce Breakdo n Vol age	V_{GS}=0V ,I_D=250 A	700	--	--	V
$\triangle BV_{DSS}$ /$\triangle T_J$	Breakdo n Vol age Tempera re Coefficien	I_D=250 A (Referenced o 25°C)	--	0.7	--	V/°C
I_{DSS}	Zero Ga e Vol age Drain C rren	V_{DS}=700V,V_{GS}=0V	--	--	1	A
		V_{DS}=560V,Tc=125°C	--	--	10	A
I_{GSSF}	Ga e-Bod Leakage C rren ,For ard	V_{GS}=+30V, V_{DS}=0V	--	--	100	nA
I_{GSSR}	Ga e-Bod Leakage C rren ,Re er e	V_{GS}=-30V, V_{DS}=0V	--	--	-100	nA
$V_{GS(\ h)}$	Ga e Thre hold Vol age	V_{DS}= V_{GS}, I_D=250 A	2.0	--	4.0	V
$R_{DS(on)}$	S a ic Drain-So rce On-Re i ance	V_{GS}=10 V, I_D=3.5A	--	1.2	1.4	
g_{FS}	For ard Tran cond c ance	V_{DS}=40 V, I_D=3.5A (No e4)	--	6.5	--	S
C_i	Inp Capaci ance	V_{DS}=25V,V_{GS}=0V, f=1.0MH	--	1380	--	pF
C_o	O p Capaci ance		--	170	--	pF
C_r	Re er e Tran fer Capaci ance		--	15	--	pF
$_{d(on)}$	T rn-On Dela Time	V_{DD} = 350 V, I_D = 7.0 A, R_G = 25 (No e4,5)	--	13	--	n
$_r$	T rn-On Ri e Time		--	100	--	n
$_{d(off)}$	T rn-Off Dela Time		--	126	--	n
$_f$	T rn-Off Fall Time		--	48	--	n
Q_g	To al Ga e Charge	V_{DS} = 560 V, I_D =7.0				

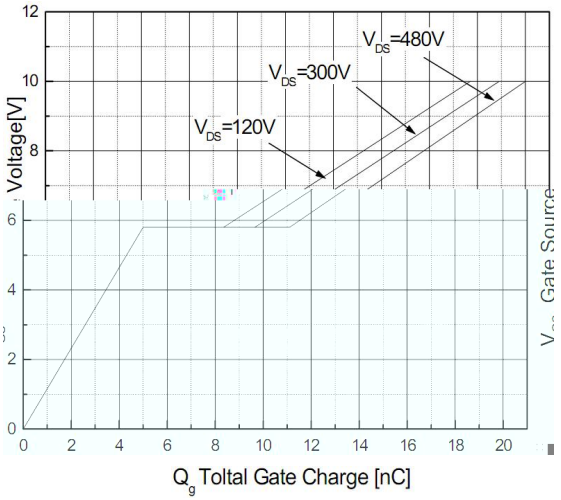

Top
Bottom
10
1
Notes:
1. 250μs pulse test
2. T_C=25℃
I_D [A]
V_DS [V]

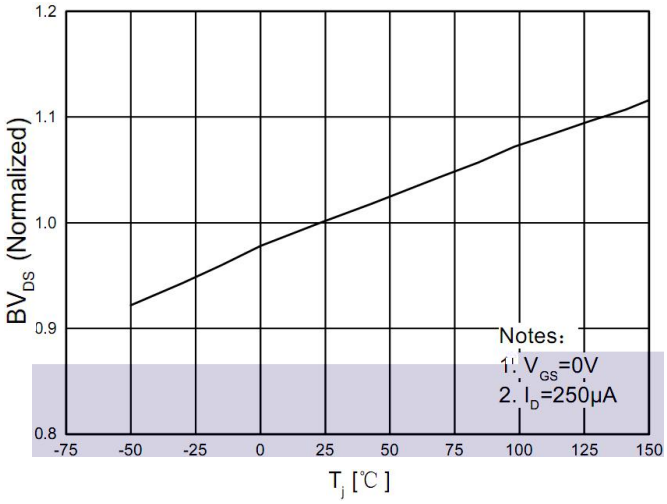

10
1
0.1
2
4
6
8
10
25℃
150℃
Notes:
1.250μs pulse test
2.V_DS=40V
I_D [A]
V_GS [V]

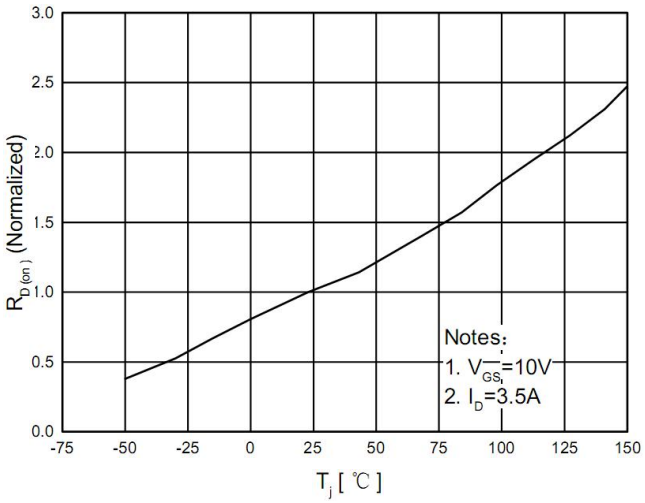

R_DS (on) [Ω]
I_D [A]

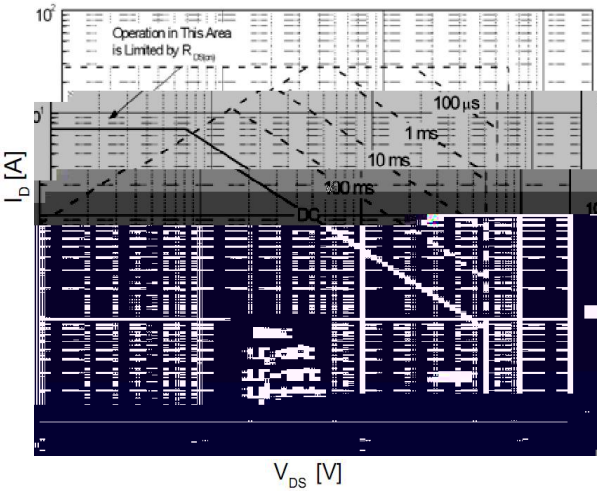

10
1
25℃
I_DR [A]
V_SD [V]

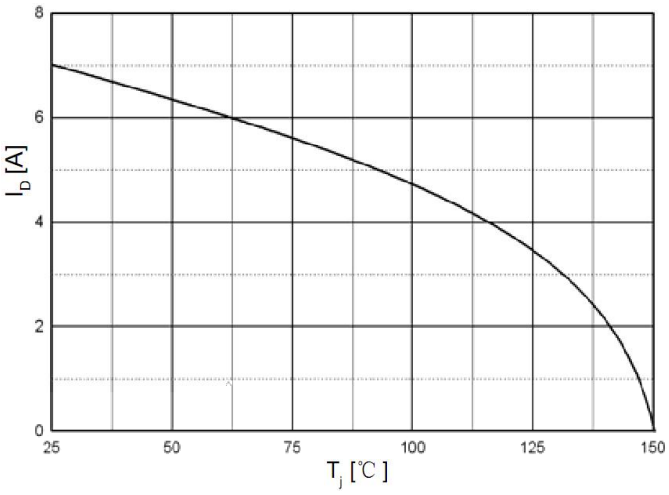

2000
1600
1200
800
400
0
10^-1
10^0
10^1
C_iss
C_oss
C_rss
Notes:
1. V_GS=0V
2. f=1MHz
Capacitance [pF]
V_DS [V]


12
10
8
6
4
2
0
0
2
4
6
8
10
12
14
16
18
20
V_DS=480V
V_DS=300V
V_DS=120V
Voltage[V]
Q_g Toltal Gate Charge [nC]


1.2
1.1
1.0
0.9
0.8
BVDS (Normalized)
-75
-50
-25
0
25
50
75
100
125
150
Tj [℃]
Notes:
1. VGS=0V
2. ID=250μA


3.0
2.5
2.0
1.5
1.0
0.5
0.0
RD(on) (Normalized)
-75
-50
-25
0
25
50
75
100
125
150
Tj [℃]
Notes:
1. VGS=10V
2. ID=3.5A


Operation in This Area
is Limited by RDS(on)
100 μs
1 ms
10 ms
100 ms
DC
ID [A]
VDS [V]


8
6
4
2
0
ID [A]
25
50
75
100
125
150
Tj [℃]

UNIT：mm

SYMBOL	min	nom	ma	SYMBOL	min	nom	ma
A	9.80		10.60	D		2.54	
A1		7.00		D1	1.15		1.55
A2	2.90		3.40	D2	0.60		1.00
A3	9.10		9.90	D3	0.20		0.50
B1	15.40		16.40	E	2.24		2.84
B2	4.35		4.95	E1		0.70	
B3	6.00		7.40	E2		1.0×45°	
C	3.00		3.70	E3	0.35		0.65
C1	15.00		17.00	E4	2.30		3.30
C2	8.80		10.80			30°