$I_{D\ (Sillicon\ Limited)}$

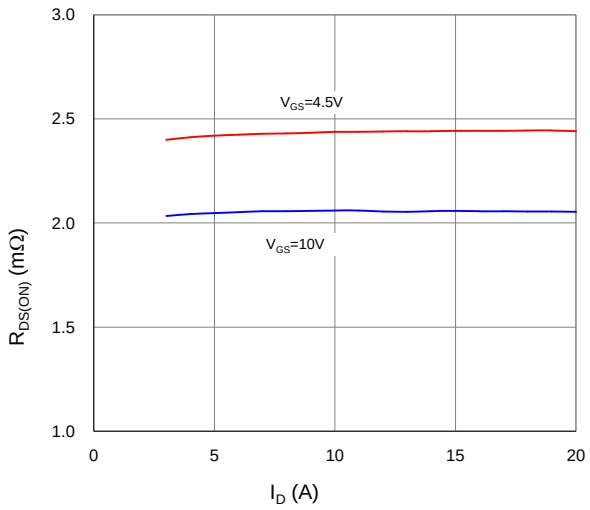
Thermal Resistance Junction-Ambient	R

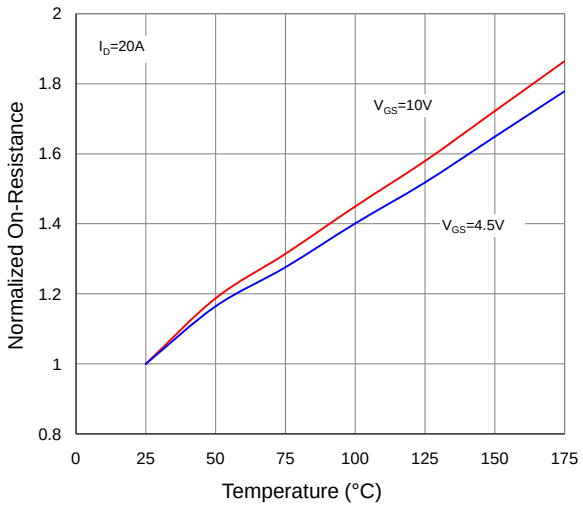
Electrical j

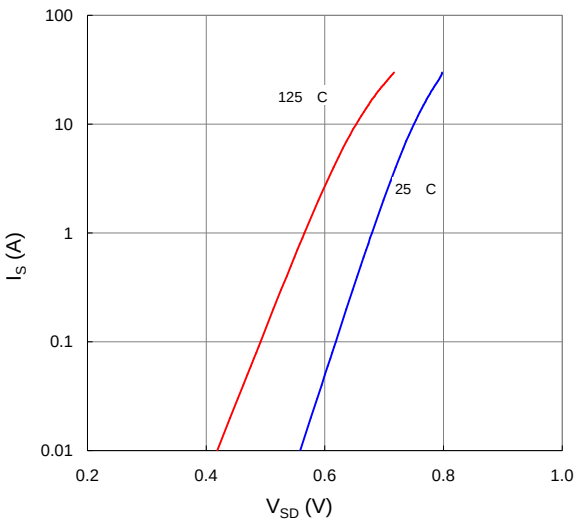
Parameter	Symbol		Value			Unit
			min	typ	max	
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0V, I_D=250μA	30	-	-	V
Gate Threshold Voltage	$V_{GS(th)}$	V_{GS}=V_{DS}, I_D=250μA	1	1.8	2.4	
	I_{DSS}	V_{GS}=0V, V_{DS}=30V, T_j	-	-	1	μA
		V_{GS}=0V, V_{DS}=30V, T_j	-	-	100	
	I_{GSS}	V_{GS}=±20V, V_{DS}=0V	-	-	±100	nA
Drain to Source on Resistance	$R_{DS(on)}$	V_{GS}=10V, I_D=20A	-	2.00	2.5	mΩ
		V_{GS}=4.5V, I_D=20A	-	2.30	3	
Transconductance	g	V_{DS}=5V, I_D=20A	-	90	-	S
Gate Resistance	R_G	V_{GS}=0V, V_{DS}	-	1.9	-	Ω

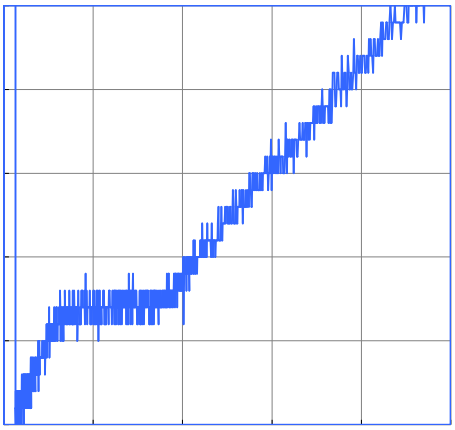
	iss	V_{GS}=0V, V_{DS}	-	4460	-	
	oss		-	880	-	
	rss		-	450	-	
	Q_g(10V)	V_{DD}=15V, I_D=20A, V_{GS}=10V	-	88	-	
	Q_g(4.5V)			48		
	Q_{gs}		-	12	-	
	Q_{gd}		-	28	-	
Turn on Delay Time	$t_{d(on)}$	V_{DD}=15V, I_D=20A, V_{GS}=10V, R_G=3Ω,	-	18	-	ns
Rise time	t_r		-	13	-	
	t		-	45	-	
	t		-	18	-	

	V_{SD}	V_{GS}=0V, I =20A	-	0.9	1.2	V
Reverse Recovery Time	t_{rr}	V_R=15V, I =20A, dI μs	-	30	-	ns
	Q_{rr}		-	60	-	

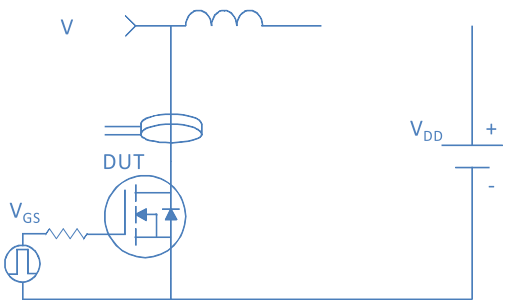

3.0
2.5
2.0
1.5
1.0
0
5
10
15
20
V_{GS}=4.5V
V_{GS}=10V
$R_{DS(ON)}$ (mΩ)
I_D (A)


2
1.8
1.6
1.4
1.2
1
0.8
0
25
50
75
100
125
150
175
I_D=20A
V_{GS}=10V
V_{GS}=4.5V
Normalized On-Resistance
Temperature (°C)


100
10
1
0.1
0.01
0.2
0.4
0.6
0.8
1.0
125 C
25 C
I_S (A)
V_{SD} (V)



Inductive switching Test	

Uclamped Inductive Switching (UIS) Test	
	

Diode Recovery Test	