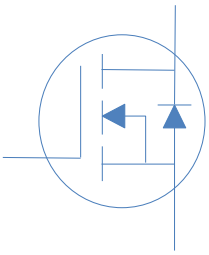
V_{DS}		30	V
$R_{DS(on),typ}$	V_{GS}=10V	2.0	m
$R_{DS(on),typ}$	V_{GS}=4.5V	2.3	m
$I_{D\ (Sillicon\ Limited)}$		137	A
$I_{D\ (Package\ Limited)}$		120	A



Part Number	Package	Marking
HTB025N03	TO-263	TB025N03

Absolute Maximum Ratings at T_j

Parameter	Symbol		Value	Unit
	I_D	T	194	A
		T	137	
		T	120	
Drain to Source Voltage	V_{DS}	-	30	V
Gate to Source Voltage	V_{GS}	-	±20	V
	I_{DM}	-	400	A
Avalanche Energy, Single Pulse	E_{AS}	L=0.1mH, T	211	mJ
Power Dissipation	P_D	T	176	
Operating and Storage Temperature	T_J, T_{stg}	-	-55 to175	

Absolute Maximum Ratings

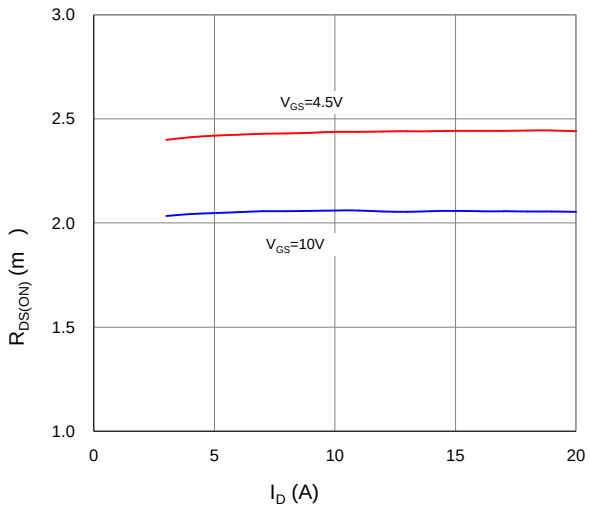
Parameter	Symbol	Max	Unit
	R	0.85	
Thermal Resistance Junction-Ambient	R	60	

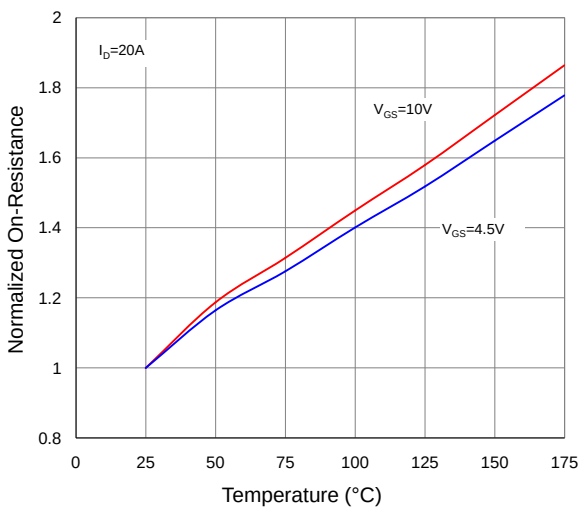
Electrical j

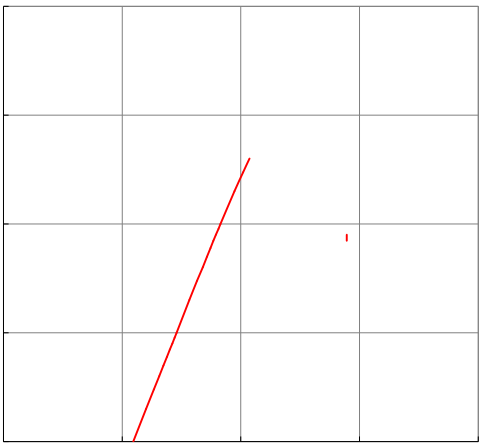
Parameter	Symbol		Value			Unit
			min	typ	max	
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0V, I_D=250 A	30	-	-	V
Gate Threshold Voltage	$V_{GS(th)}$	V_{GS}=V_{DS}, I_D=250 A	1	1.8	2.4	
	I_{DSS}	V_{GS}=0V, V_{DS}=30V, T_j	-	-	1	A
		V_{GS}=0V, V_{DS}=30V, T_j	-	-	100	
	I_{GSS}	V_{GS}=±20V, V_{DS}=0V	-	-	±100	nA
Drain to Source on Resistance	$R_{DS(on)}$	V_{GS}=10V, I_D=20A	-	2.00	2.5	m
		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	-	

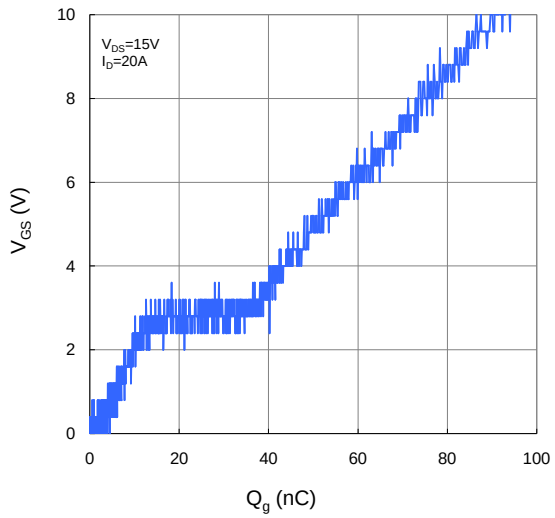
	iss	V_{GS}=0V, V_{DS}	-	4460	-	
	oss		-	880	-	
	rss		-	450	-	
	Q_g(10V)	V_{DD}=15V, I_D=20A, V_{GS}=10V	-	88	-	
	Q_g(4.5V)			48		
	Q_{gs}		-	12	-	
	Q_{gd}		-	28	-	
Turn on Delay Time	$t_{d(on)}$	V_{DD}=15V, I_D=20A, V_{GS}=10V, R_G=3 ,	-	18	-	ns
Rise time	t_r		-	13	-	
	t		-	45	-	
	t		-	18	-	

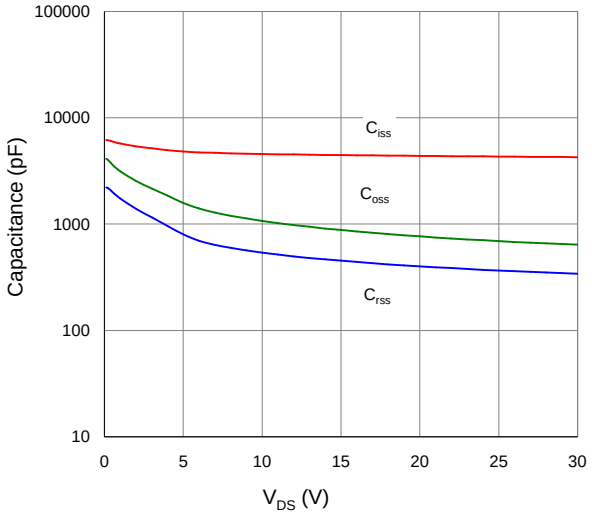
	V_{SD}	V_{GS}=0V, I =20A	-	0.9	1.2	V
Reverse Recovery Time	t_{rr}	V_R=15V, I =20A, dI s	-	30	-	ns
	Q_{rr}		-	60	-	

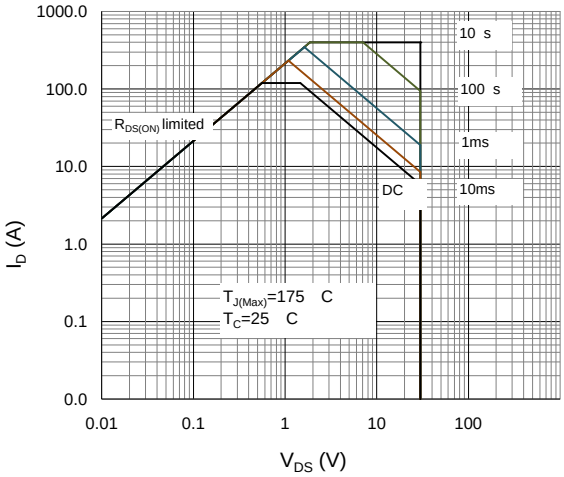

3.0
2.5
2.0
1.5
1.0
0
5
10
15
20
V_{GS}=4.5V
V_{GS}=10V
$R_{DS(ON)}$ (m Ω)
I_D (A)

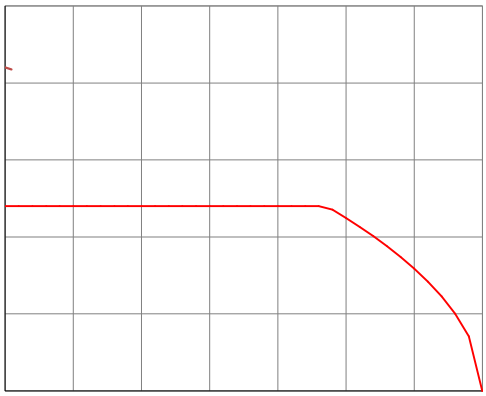

2
1.8
1.6
1.4
1.2
1
0.8
0
25
50
75
100
125
150
175
I_D=20A
V_{GS}=10V
V_{GS}=4.5V
Normalized On-Resistance
Temperature (°C)




V_{DS}=15V
I_D=20A
V_{GS} (V)
Q_g (nC)


Capacitance (pF)
C_{iss}
C_{oss}
C_{rss}
V_{DS} (V)


$R_{DS(ON)}$ limited
10 s
100 s
1ms
DC
10ms
$T_{J(Max)}$=175 C
T_C=25 C
I_D (A)
V_{DS} (V)

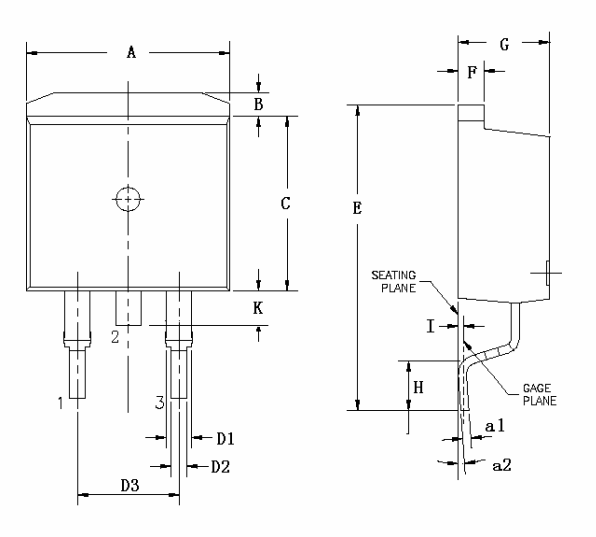


Inductive switching Test	

Uclamped Inductive Switching (UIS) Test	

de Recovery Test	

TO-263, 2 leads



Symbol	Min	Nom	Max
A	9.66	9.97	10.28
B	1.02	1.17	1.32
	8.59	9.00	9.40
D1	1.14	1.27	1.40
D2	0.70	0.83	0.95
D3		5.08	
E	15.09	15.24	15.39
	1.15	1.28	1.40
G	4.30	4.50	4.70
H	2.29	2.54	2.79
I		0.25	
K	1.30	1.45	1.60
a1	0.45	0.55	0.65
a2(degree)	0°		8°