

650V 10A Trench and Field Stop IGBT

JJT10N65ST

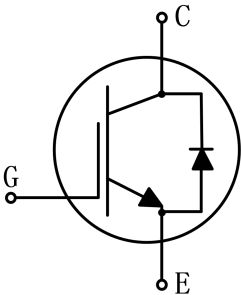
- $V_{CE}=650V$
- $I_C=10A@T_C=100^{\circ}C$
- $V_{CE(sat)}=1.8V$

TO-252

- H
- 10
- P $V_{CE(sat)}$
- H
- E
- R_{DS(on)}



- H
- M



T	M	P	P
JJT10N65ST	T1065ST	TO-252	T



CES	C	-	650	V
GES	G	-	20	V
C	C	(c=25)	20	A
	C	(c=100)	10	A
CM	P	,	40	A
F	D	(c=100)	10	A
FM	D	,	40	A
	S		10	



($\beta = 25$)

S

CES	C -	$V_{GE}=0V, I_C=250\text{ A}$	650	-	-	V
CES	C -	$V_{CE}=650V, V_{GE}=0V$	-	-	50	A
GES	G ,	$V_{GE}=20V, V_{CE}=0V$	-	-	100	A
	G ,	$V_{GE}=-20V, V_{CE}=0V$	-	-	-100	A
$V_{GE}(\text{)}$	G -	$V_{GE}=V_{CE}, I_C=1\text{ A}$	5.3	5.8	6.3	V
$V_{CE}(\text{)}$	C -	$V_{GE}=15V, I_C=10A$	-	1.8	-	V
		$V_{GE}=15V, I_C=10A, \beta=175$	-	2.3	-	V

D

	I	$V_{CE}=30V$ $V_{GE}=0V$ $\beta=1MH$	-	670	-	F
	O		-	37	-	F
	R		-	10	-	F
	T	$V_{CC}=520V$ $V_{GE}=15V$ $I_C=10A$	-	28	-	C



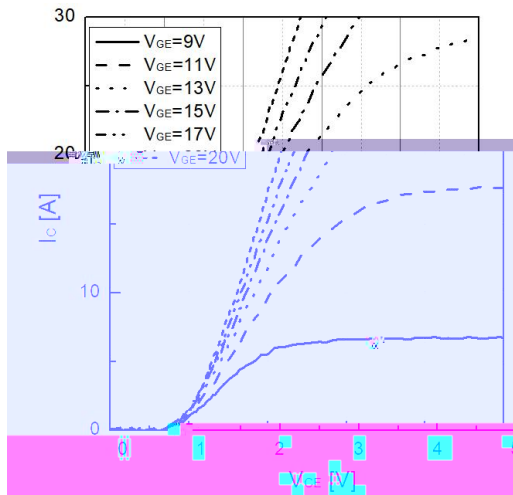
S

()	T -	CC=400V GE=0/15V c=10A G=10Ω I	-	12	-	
	R		-	11	-	
()	T -		-	74	-	
	F		-	71	-	
	T -		-	0.18	-	J
	T -		-	0.17	-	J
	T		-	0.35	-	J
()	T -	CC=400V GE=0/15V c=10A G=10Ω I =175	-	11	-	
	R		-	13	-	
()	T -		-	114	-	
	F		-	87	-	
	T -		-	0.22	-	J
	T -		-	0.27	-	J
	T		-	0.49	-	J

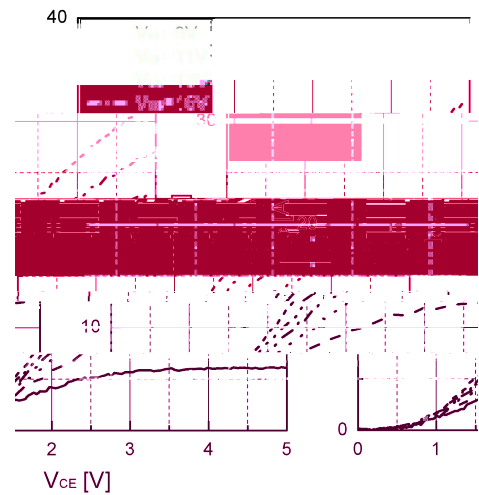


(≈ 25)

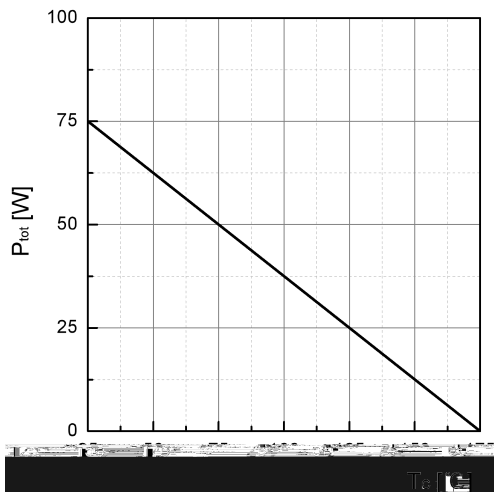
F	D	$F=10A$	-	1.4	-	V
		$F=10A, \approx 175$	-	1.2	-	V
	D	$R=400V$ $F=10A$ $F/ \approx -750A/$	-	57	-	
	D		-	12	-	A
	D		-	411	-	C
	D	$R=400V$ $F=10A$ $F/ \approx -750A/$ ≈ 175	-	124	-	
	D		-	13	-	A
	D		-	737	-	C



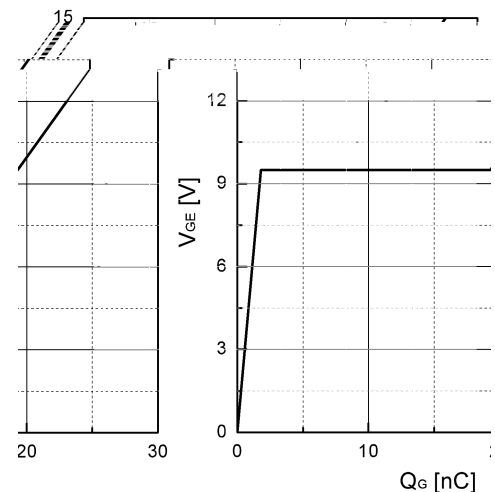
F 1. T ($T_{vj} = 25^\circ\text{C}$)



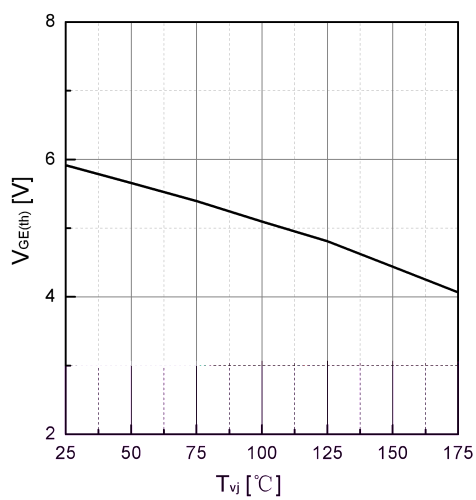
F 2. T ($T_{vj} = 175^\circ\text{C}$)



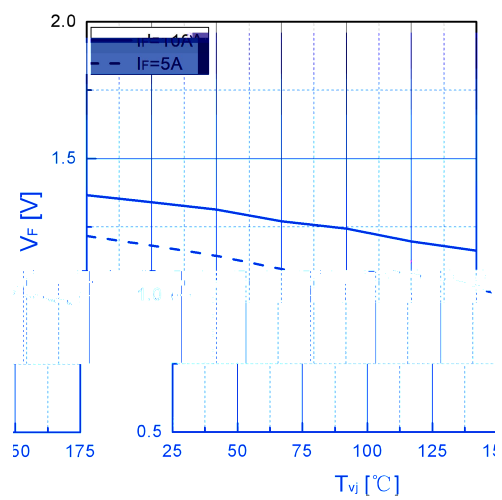
F 3. P



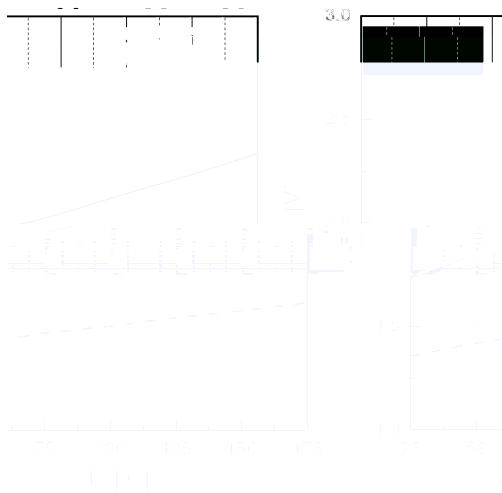
F 4. T G



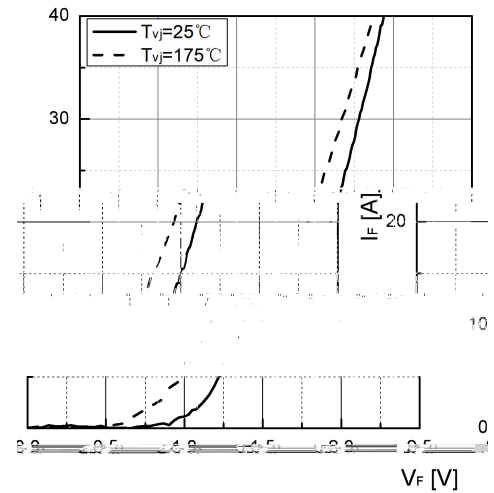
F 5. T $V_{GE(th)}$ ($I_D = 1\text{A}$)



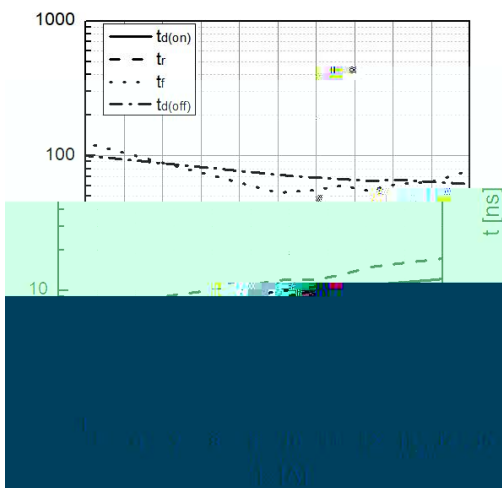
F 6. T F



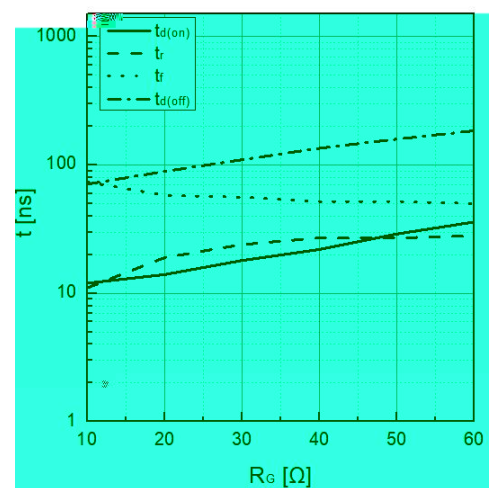
F 7. T CE



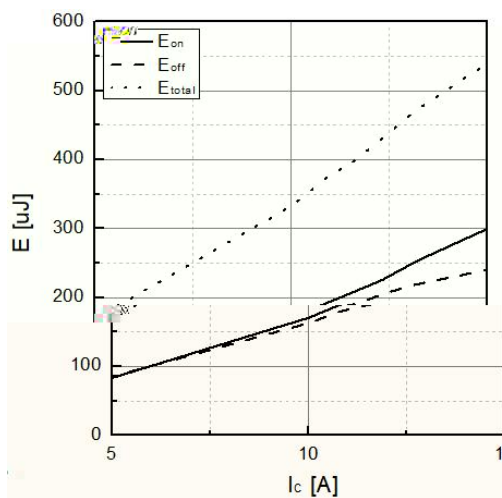
F 8. T F F



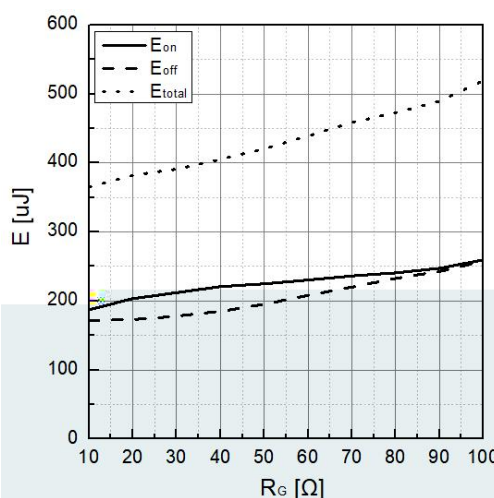
F 9. T C



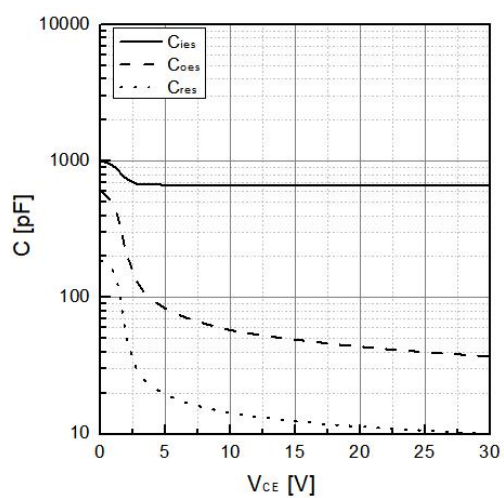
F 10. T G



F 11. T C



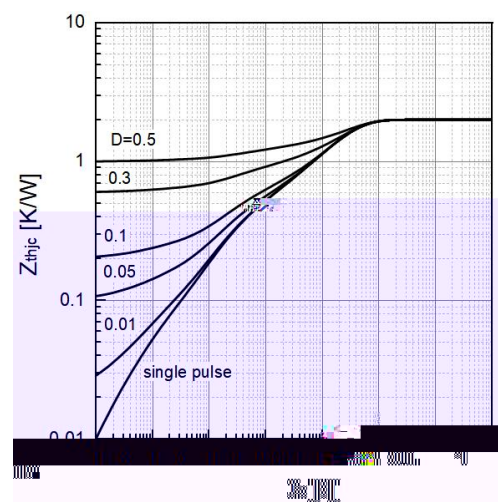
F 12. T G



F 13. T

CE

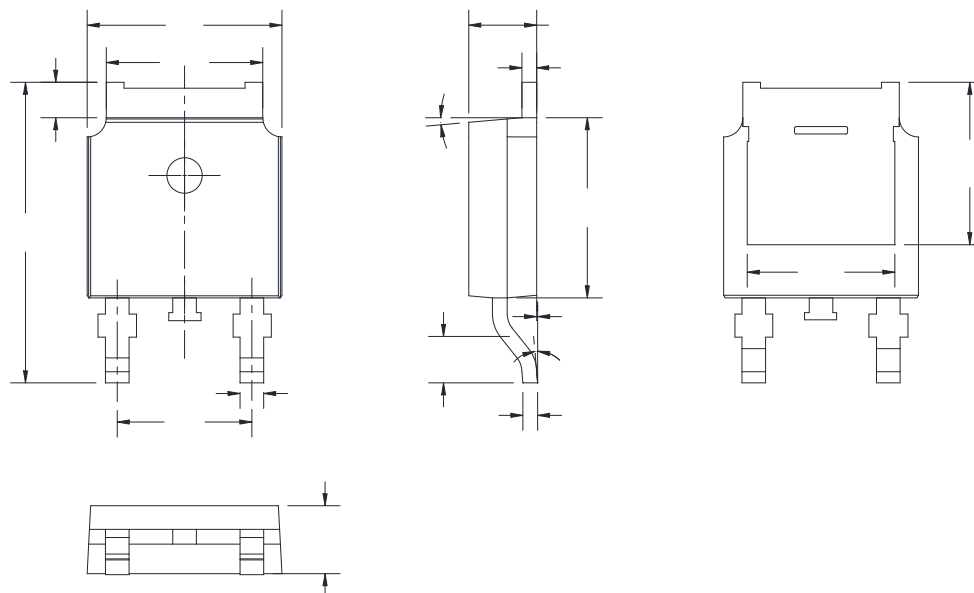
($I_{CE} = 1\text{M}$, $V_{GE} = 0\text{V}$)



F 14. T

IGBT

TO-252



R .	D					
	M			I		
	M .	T .	M .	M .	T .	M .
A	2.10	-	2.50	0.083	-	0.098
A2	0	-	0.10	0	-	0.004
B	0.66	-	0.86	0.026	-	0.034
B2	5.18	-	5.48	0.202	-	0.216
C	0.40	-	0.60	0.016	-	0.024
C2	0.44	-	0.58	0.017	-	0.023
D	5.90	-	6.30	0.232	-	0.248
D1	5.30 REF			0.209 REF		
E	6.40	-	6.80	0.252	-	0.268
E1	4.63	-	-	0.182	-	-
G	4.47	-	4.67	0.176	-	0.184
H	9.50	-	10.70	0.374	-	0.421
L	1.09	-	1.21	0.043	-	0.048
L2	1.35	-	1.65	0.053	-	0.065
V1	-	7 °	-	-	7 °	-
V2	0 °	-	6 °	0 °	-	6 °



D	R	C
2023-12-23	R 1.0	R
2025-02-06	R 1.1	U
2025-04-08	R 1.2	C U
2026-06-23	R 1.3	U

PLEASE NOTE - J J J M C ., L ("JJM") , ,
/ . I
 , . T
JJM JJM'
JJM'
. P JJM
 , JJM' . A JJM
. T JJM
J J J M C ., L . T
. 2025 JJM - A