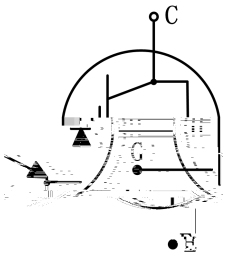
JJMIC NICS

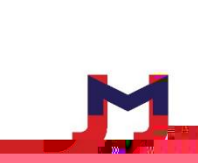
1200 40A F IGB

JJ 40N120 E

TO-247



A dc f a c edad bec e a d ca RE 1.3 J N 2026



V_{CES}	Collector-emitter breakdown voltage	V_{GE}=0V, I_C=250μA	1200	-	-	V

V_{CES} Collect

o



d(on)	Turn-on delay time		-	80	-	ns
r	Rise time		-	77	-	ns
d(off)	Turn-off delay time	CC=600V GE=0/15V C=40A G=10 Inductive load	-	308	-	ns
f	Fall time		-	67	-	ns
on	Turn-on energy		-	2.1	-	mJ
off	Turn-off energy		-	1.4	-	mJ
ts	Total switching energy		-	3.5	-	mJ
d(on)	Turn-on delay time		-	70	-	ns
r	Rise time		-	75	-	ns
d(off)	Turn-off	CC=600V GE=0/15V C=40A G=10 Inductive load vj=175				s

3/4V1
A f a c e d/bec e a d c a e .

($_{vj}$=25 unless otherwise specified)

$_{F}$	Diode forward voltage	$_{F}$=40A	-	3.1	-	V
		$_{F}$=40A $_{vj}$=175	-	2.3	-	V
$_{rr}$	Diode reverse recovery time	$_{R}$=600V $_{F}$=40A d $_{F}$/d =-750A/μs	-	170	-	ns
$_{rrm}$	Diode peak reverse recovery current		-	17	-	A
$_{rr}$	Diode reverse recovery charge		-	1100	-	nC
$_{rr}$	Diode reverse recovery time	$_{R}$=600V $_{F}$=40A d $_{F}$/d =-750A/μs $_{vj}$=175	-	285	-	ns
$_{rrm}$	Diode peak reverse recovery current		-	28	-	A
$_{rr}$	Diode reverse recovery charge		-	3300	-	nC

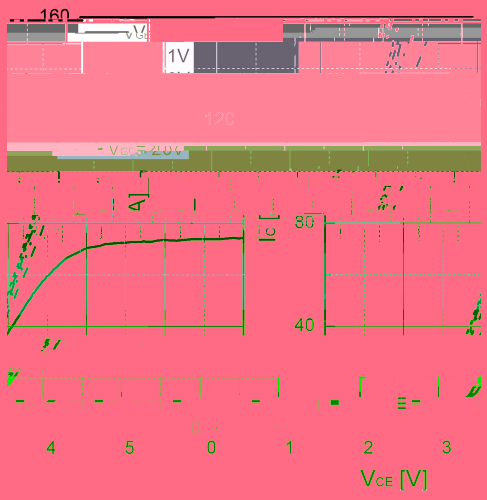


Fig 1. Typical output characteristic (vj=25)

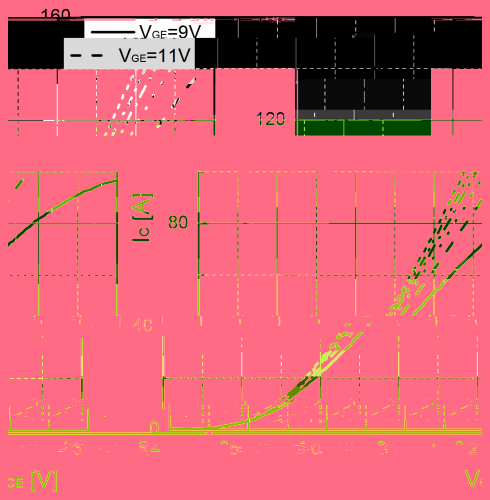


Fig 2. Typical output characteristic(vj=175)

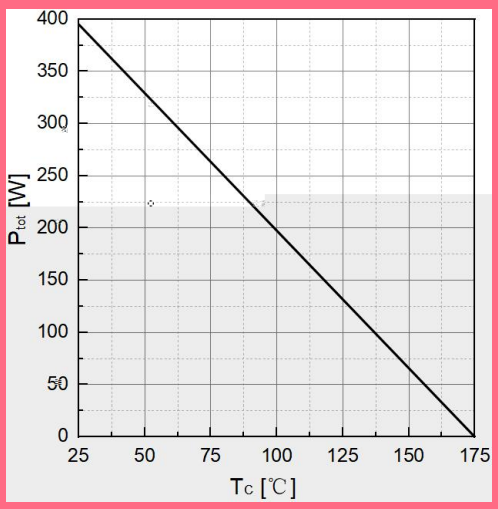


Fig 3. Power dissipation as a function of

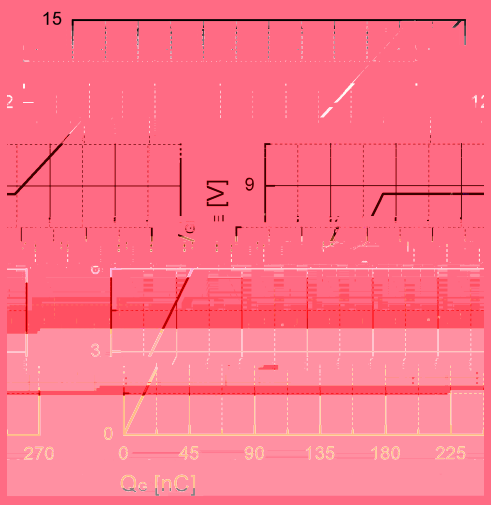


Fig 4. Typical Gate charge

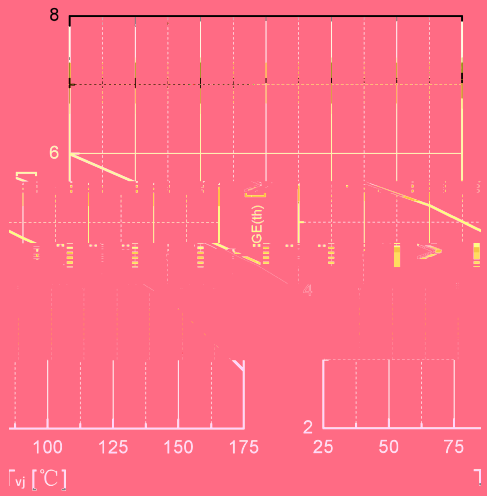


Fig 5. Typical GE(th) as a function of vj (C=1mA)

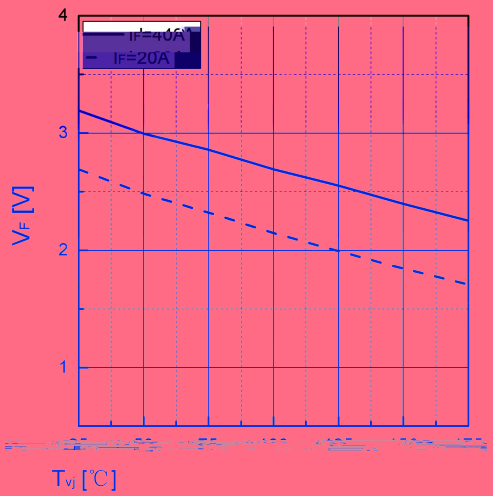


Fig 6. Typical F as function of vj

A d c f a c ed a d bec e a d ca e .

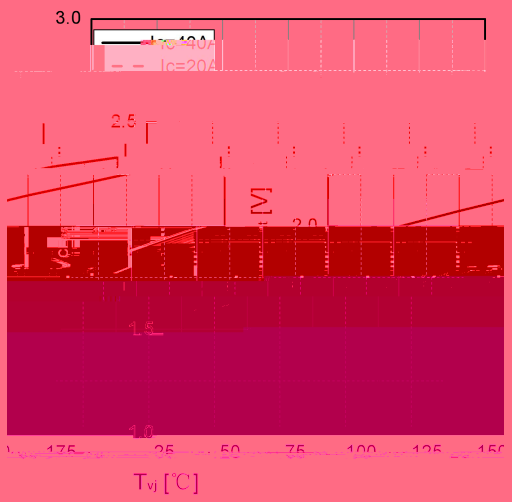


Fig 7. Typical $_{CEsat}$ as a function of $_{vj}$



Fig 8. Typical $_{F}$ as a function of $_{F}$

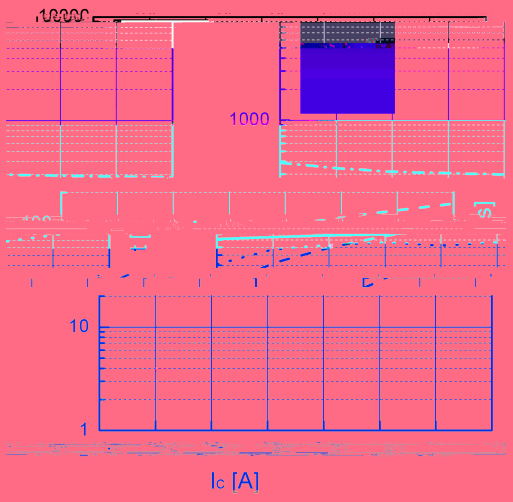


Fig 9. Typical switching time as a function of $_{C}$



Fig 10. Typical switching times as a function of $_{G}$

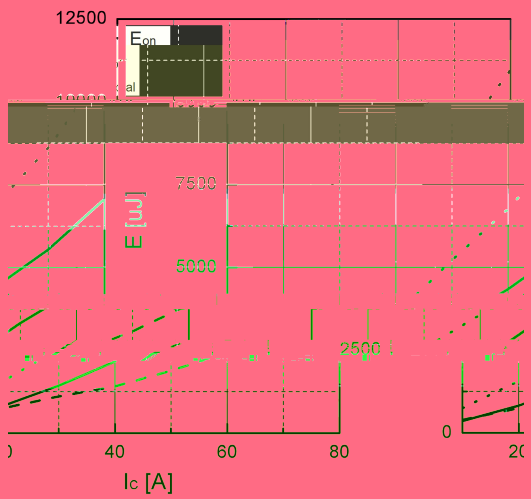


Fig 11. Typical switching energy losses as a function of $_{C}$

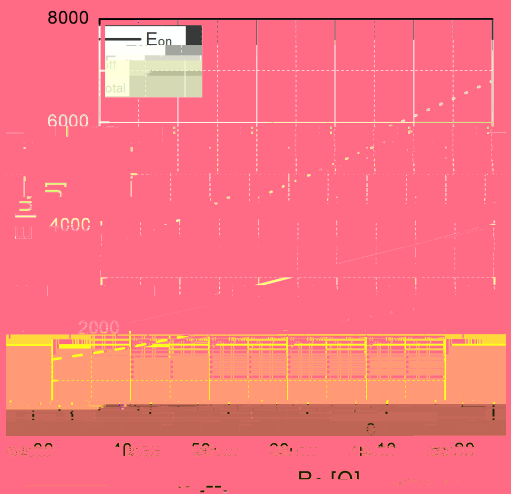


Fig 12. Typical switching energy losses as a function of $_{G}$

A dc f a c edad bec e ad ca e .



A d c f a c ed a d

Dimensions

Ref.	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	15.50	15.80	16.10	0.610	0.622	0.634
B	20.80	21.00	21.20	0.819	0.827	0.835
C	19.70	20.00	20.30	0.776	0.787	0.799
D	1.80	2.00	2.20	0.071	0.079	0.087
E	1.90	2.10	2.30	0.075	0.083	0.091
F	1.00	1.20	1.40	0.039	0.047	0.055
G	5.25	-	5.65	0.207	-	0.222
H	4.80	5.00	5.20	0.189	0.197	0.205
J	1.90	2.00	2.10	0.075	0.07	
K	2.20	2.35	2.50	0.087	0.093	0.098
L	0.41	0.60	0.7		0.024	0.031
M	2.80	3.00	3.20	0.110	0.118	0.126

Date	Revision	Changes
2023-12-12	Rev. 1.0	Release of the datasheet.
2024-04-03	Rev. 1.1	Update
2024-05-17	Rev. 1.2	Update
2026-06-25	Rev 1.3	Update thermal

PLEASE NO Ltd ("JJM") reserves the right to amend, correct, modify

