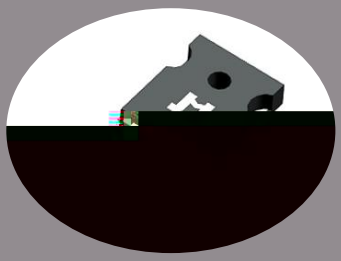
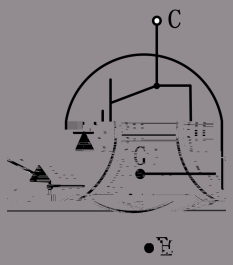
- V_{CE} =1200V
- I_C=40A@ T_C=100
- $V_{CE(sat)}$=1.9V

TO-247





- Trench and field-stop technology
- High speed switching
- Low collector to emitter saturation voltage
- Easy parallel switching capability
- High ruggedness performance
- RoHS compliant

- Welding machines
- UPS
- Solar inverters

Type	Marking	Package	Packaging Method
JJT40N120HK	T40120HK	TO-247	Tube

$_{CES}$ Collector-emitter breakdown voltage $_{GE}$

d(on) Turn-on delay time

CC=600V

GE=0/15V

C=40A

G=10

Inducm

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

$_{F}$	Diode forward voltage	$_{F}$=40A	-	2.0	-	V
		$_{F}$=40A $_{vj}$=175	-	1.6	-	V
$_{rr}$	Diode reverse recovery time	$_{R}$=600V $_{F}$=40A d $_{F}$/d =-750A/μs	-	175	-	ns
$_{rrm}$	Diode peak reverse recovery current		-	24	-	A
$_{rr}$	Diode reverse recovery charge		-	2000	-	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		-	37	-	A
$_{rr}$	Diode reverse recovery charge		-	5500	-	nC

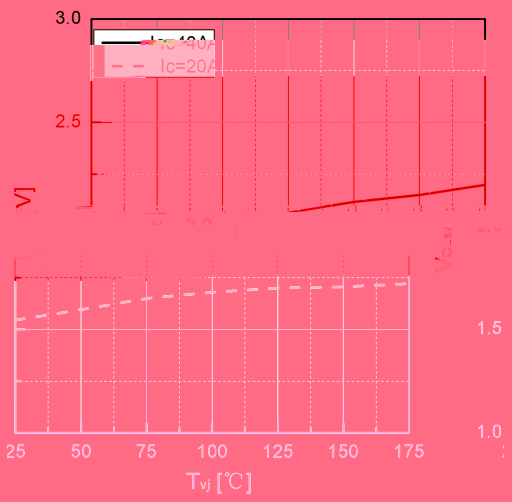

Fig 7. Typical $_{CEsat}$ as a function of $_{vj}$

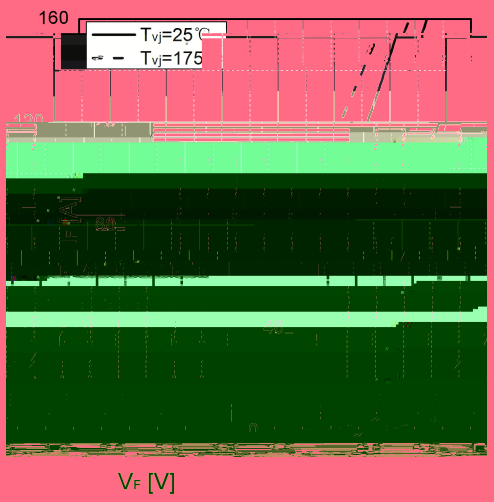

Fig 8. Typical $_{F}$ as a function of $_{F}$

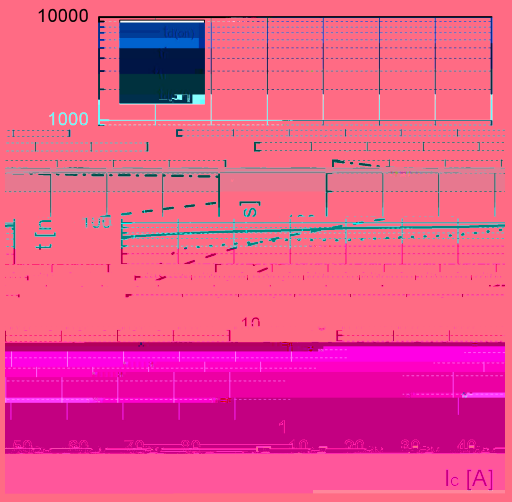

Fig 9. Typical switching time as a function of $_{C}$

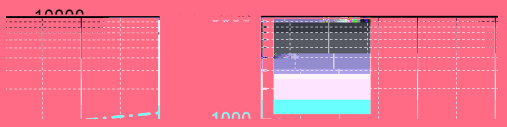

Fig 10. Typical switching times as a function of $_{G}$

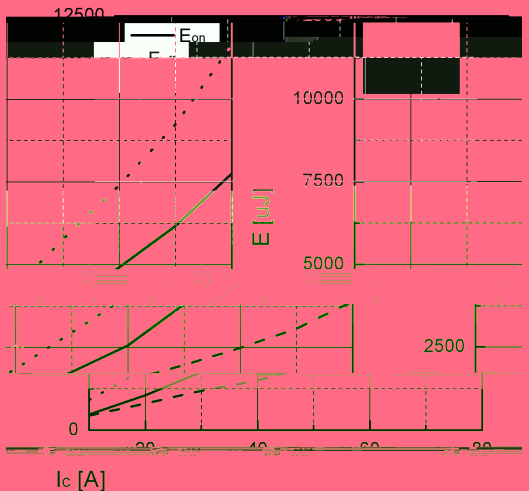

Fig 11. Typical switching energy losses as a function of $_{C}$

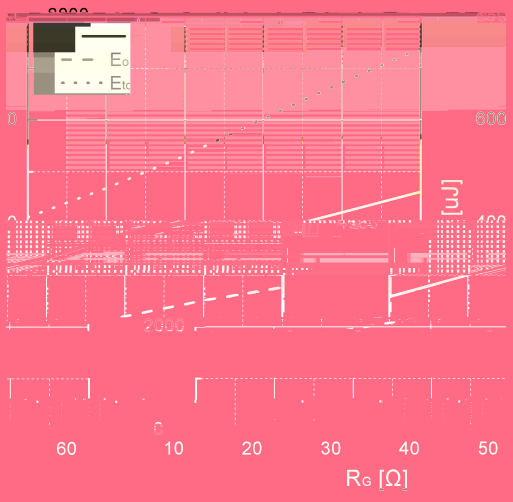

Fig 12. Typical switching energy losses as a function of $_{G}$

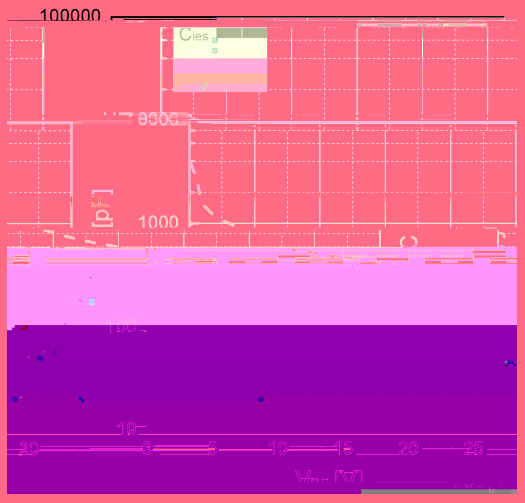

Fig 13. Typical capacitance as a function of $_{CE}$ (f=1Mhz, $_{GE}$=0V)

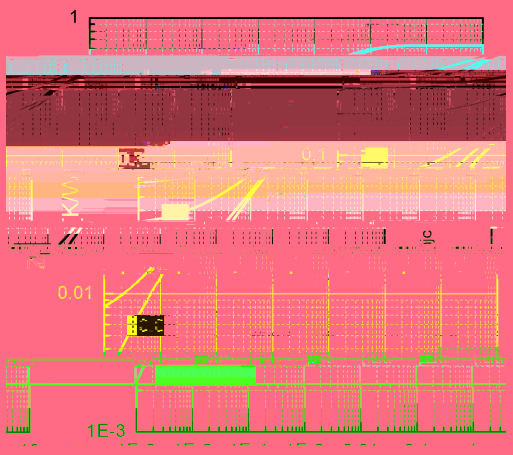

Fig 14. Transient thermal impedance of IGBT

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Date	Revision	Changes
2025-12-17	Rev. 1.0	Release of the datasheet.