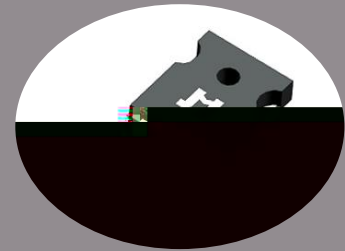
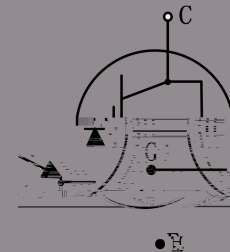


- $V_{CE} = 1200V$
- $I_C = 40A @ V_{CE} = 100$
- $V_{CE(sat)} = 1.9V$

TO-247

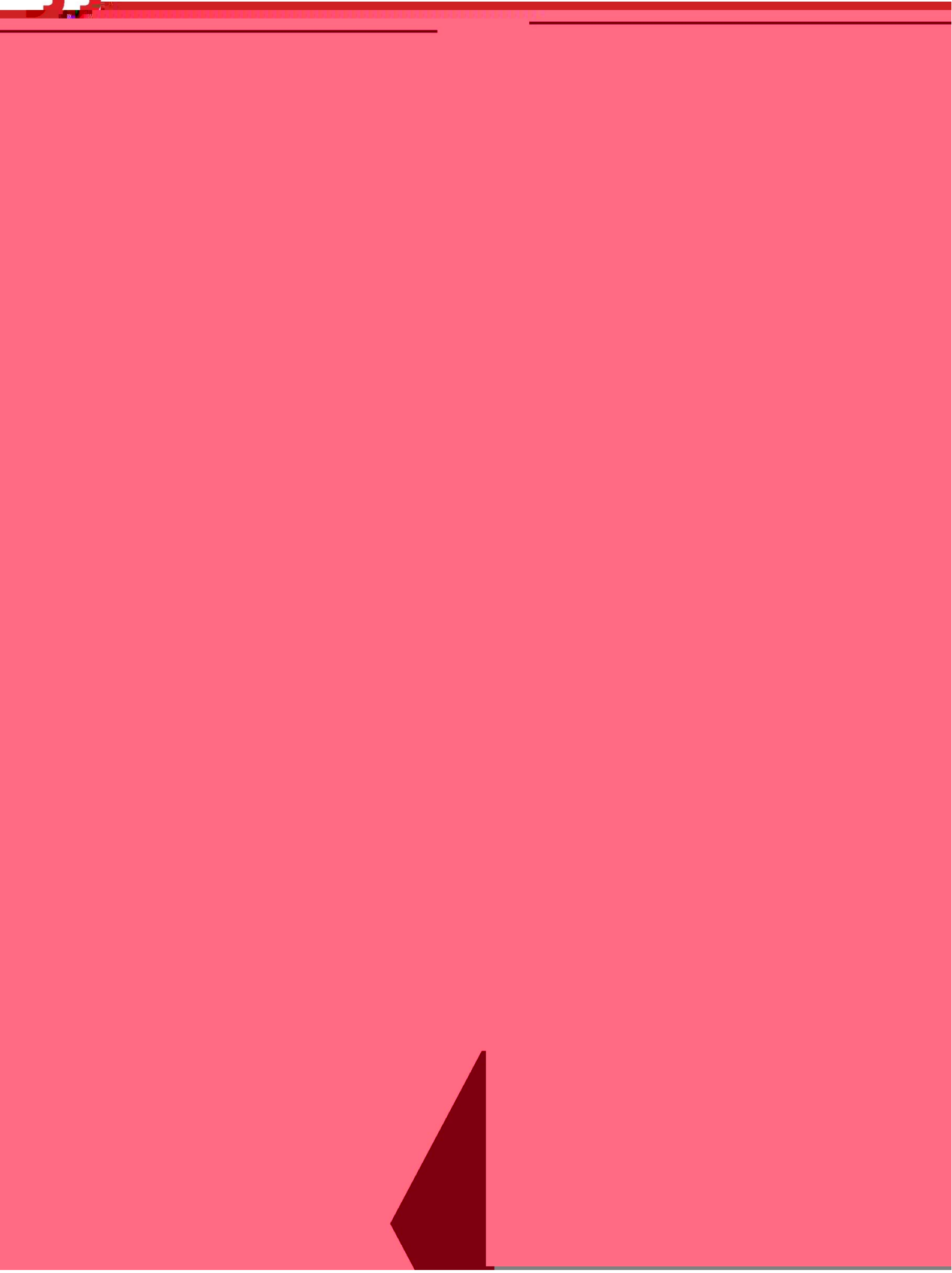


- Trench and field-stop technology
- High speed switching
- Low collector to emitter saturation voltage
- Easy parallel switching capability
- High ruggedness performance
- RoHS compliant



- 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

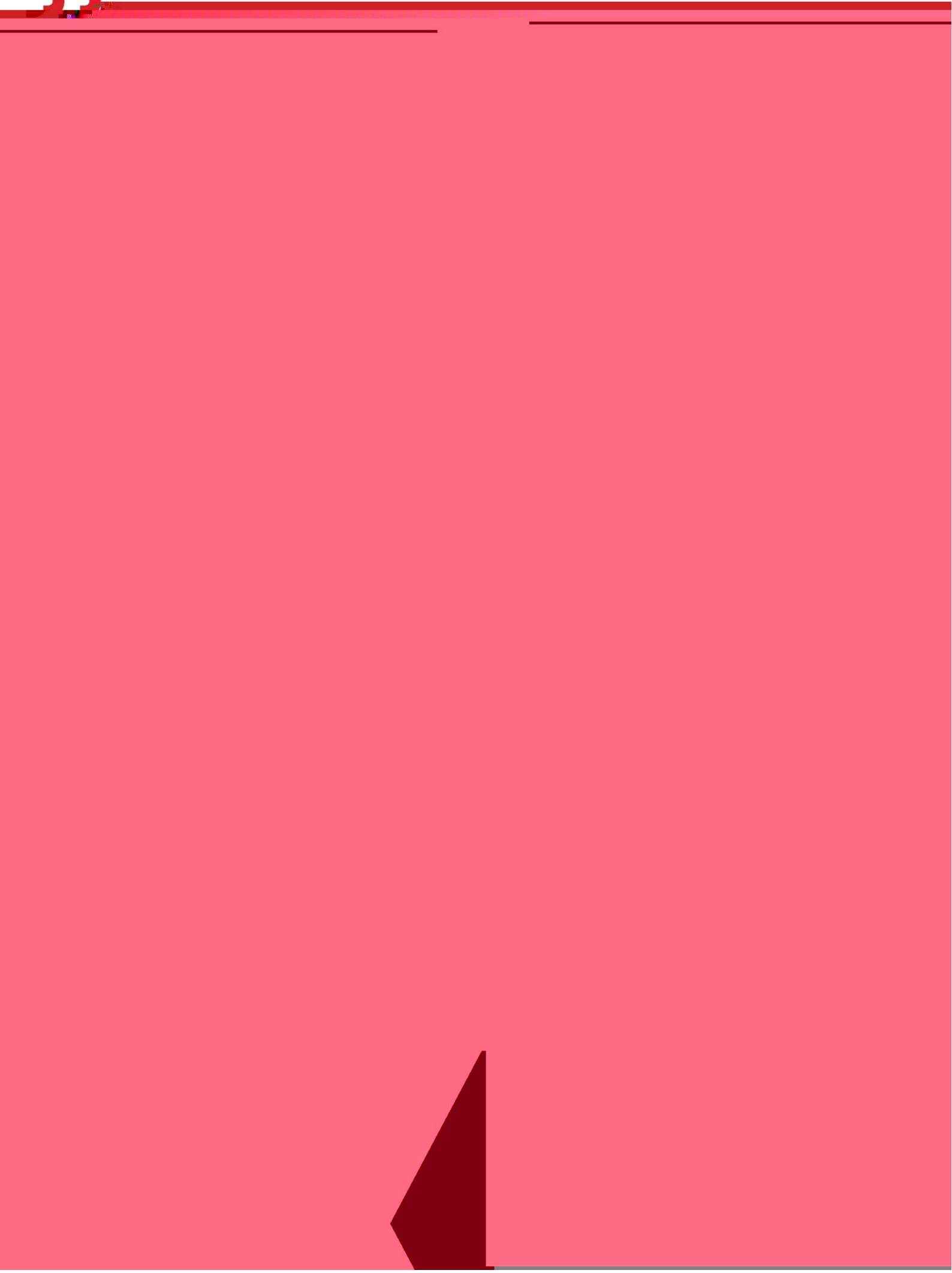
Inducm

M

MH

($v_j=25$ unless otherwise specified)

F	Diode forward voltage	$I_F=40A$	-	2.0	-	V
		$I_F=40A$ $v_j=175$	-	1.6	-	V
t_{rr}	Diode reverse recovery time	$V_R=600V$ $I_F=40A$ $d I_F/d t = -750A/\mu s$	-	175	-	ns
I_{rrm}	Diode peak reverse recovery current		-	24	-	A
Q_{rr}	Diode reverse recovery charge		-	2000	-	nC
t_{rr}	Diode reverse recovery time	$V_R=600V$ $I_F=40A$ $d I_F/d t = -750A/\mu s$ $v_j=175$	-	285	-	ns
I_{rrm}	Diode peak reverse recovery current		-	37	-	A
Q_{rr}	Diode reverse recovery charge		-	5500	-	nC



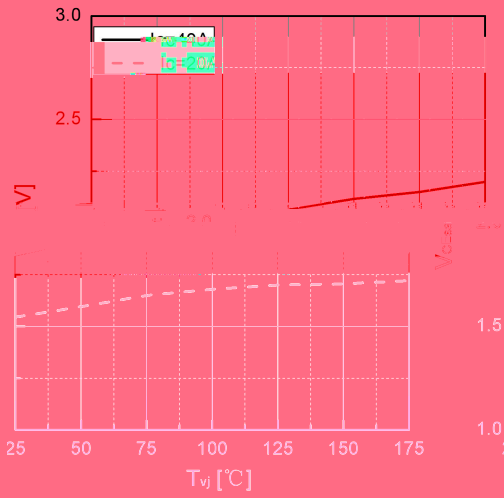


Fig 7. Typical V_{CEsat} as a function of T_{vj}

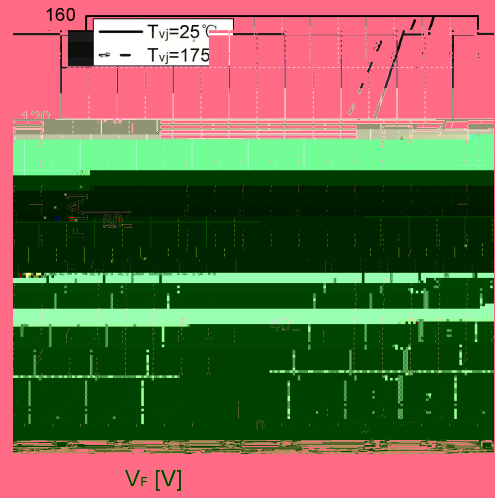


Fig 8. Typical V_F as a function of T_{vj}

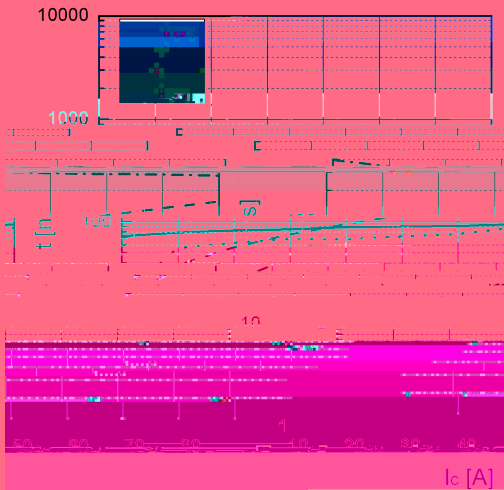


Fig 9. Typical switching time as a function of I_c

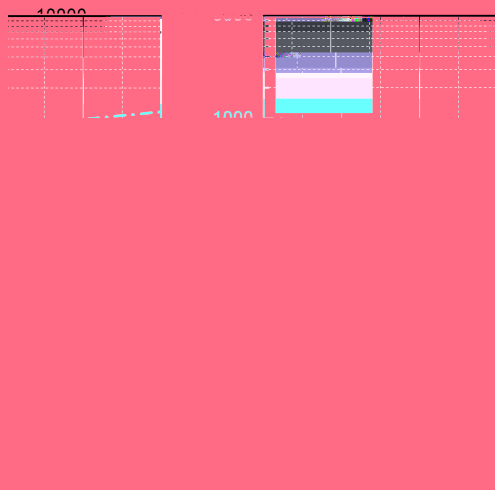


Fig 10. Typical switching times as a function of R_G

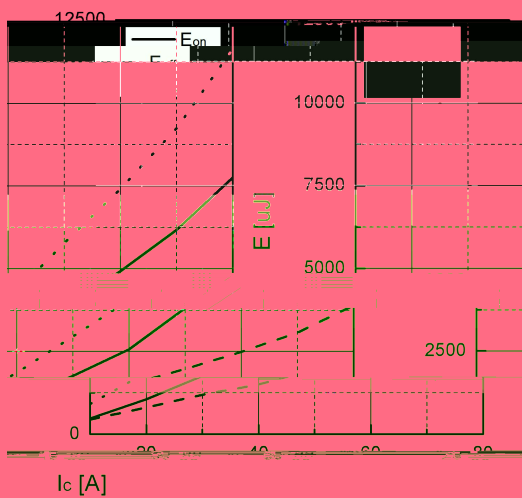


Fig 11. Typical switching energy losses as a function of I_c

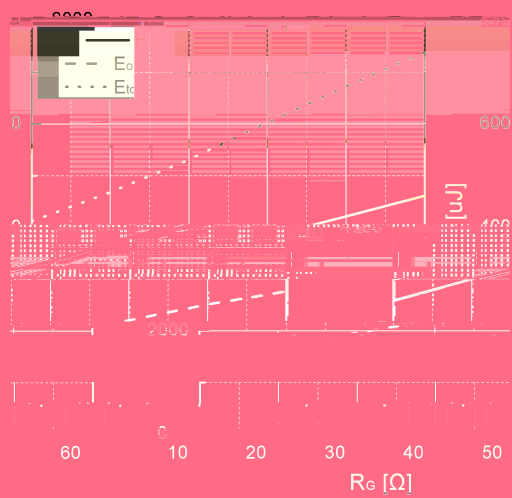


Fig 12. Typical switching energy losses as a function of R_G

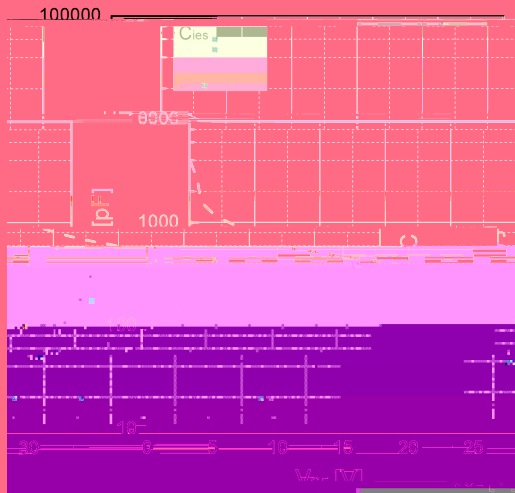


Fig 13. Typical capacitance as a function of C_E
($f=1\text{MHz}$, $V_{GE}=0\text{V}$)

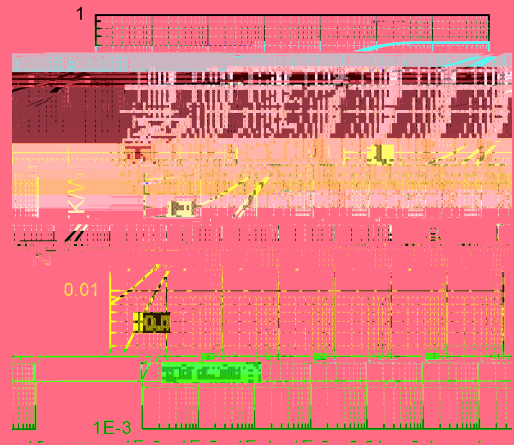


Fig 14. Transient thermal impedance of IGBT

Re





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

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