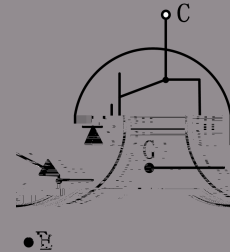
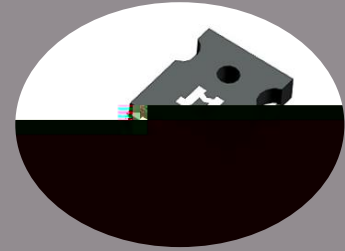


- $V_{CE}=1200V$
- $I_C=50A@T_C=100$
- $V_{CE(sat)}=1.7V$

TO-247

- Trench and field-stop technology
- High speed switching
- Low collector to emitter saturation voltage
- Easy parallel switching capability
- Short circuit withstands time $10\mu s$
- High ruggedness performance
- RoHS compliant



- Inverter
- Motor driver

Type	Marking	Package	Packaging Method
JJT50N120SE	T50120SE	TO-247	Tube

M





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

V_F	Diode forward voltage	$I_F=50A$	-	2.2	-	V
		$I_F=50A$ $T_{vj}=175$	-	1.8	-	V
t_{rr}	Diode reverse recovery time	$V_R=600V$ $I_F=50A$ $di_F/dt=-750A/\mu s$	-	174	-	ns
I_{rrm}	Diode peak reverse recovery current		-	25	-	A
Q_{rr}	Diode reverse recovery charge		-	2096	-	nC
t_{rr}	Diode reverse recovery time	$V_R=600V$ $I_F=50A$ $di_F/dt=-750A/\mu s$ $T_{vj}=175$	-	299	-	ns
I_{rrm}	Diode peak reverse recovery current		-	39	-	A
Q_{rr}	Diode reverse recovery charge		-	5731	-	nC

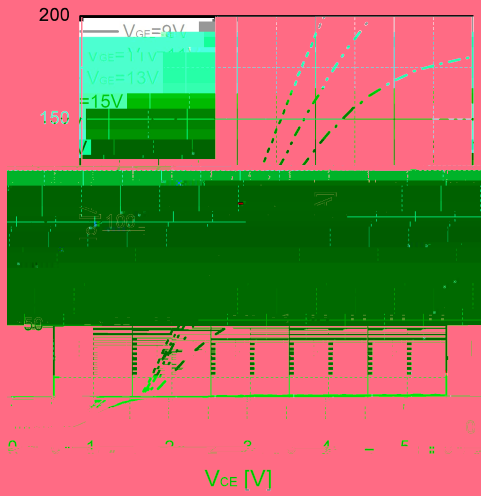


Fig 1. Typical output characteristic ($T_{vj}=25$)

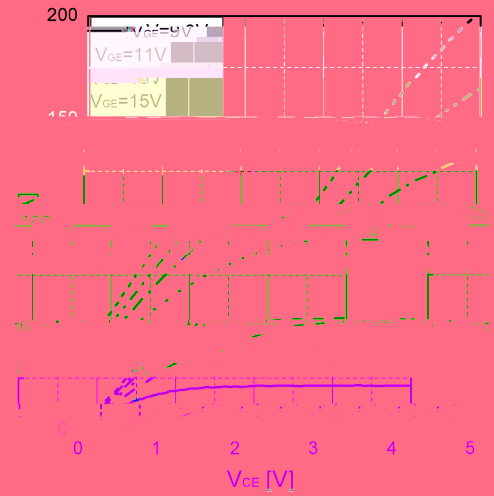


Fig 2. Typical output characteristic($T_{vj}=175$)

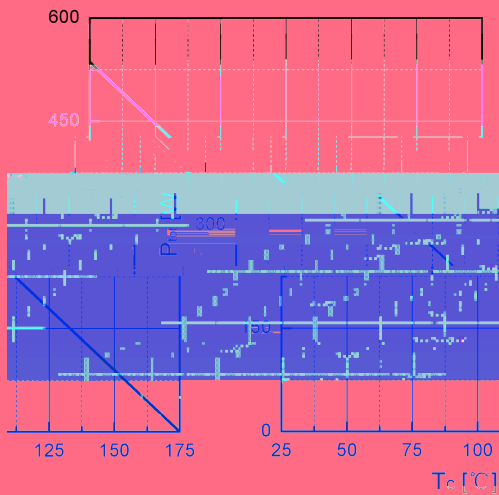


Fig 3. Power dissipation as a function of T_C

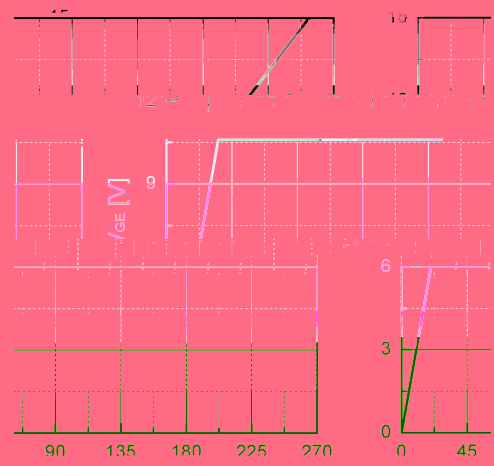


Fig 4. Typical Gate charge

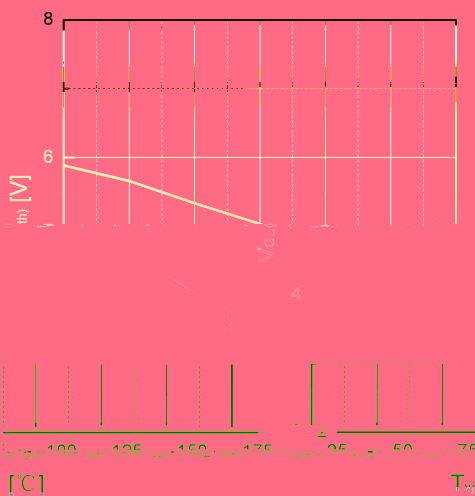


Fig 5. Typical $V_{GE(th)}$ as a function of T_{vj}
($I_C=1mA$)

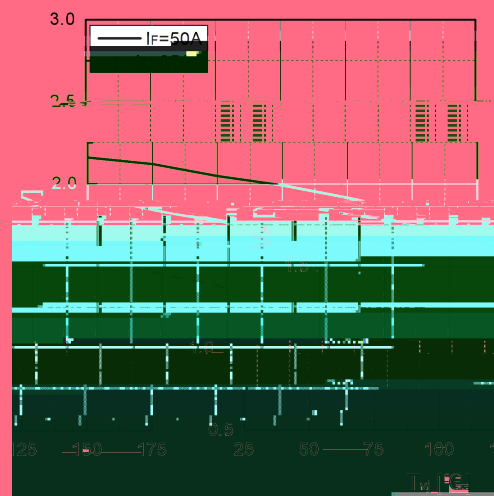


Fig 6. Typical V_F as a function of T_{vj}

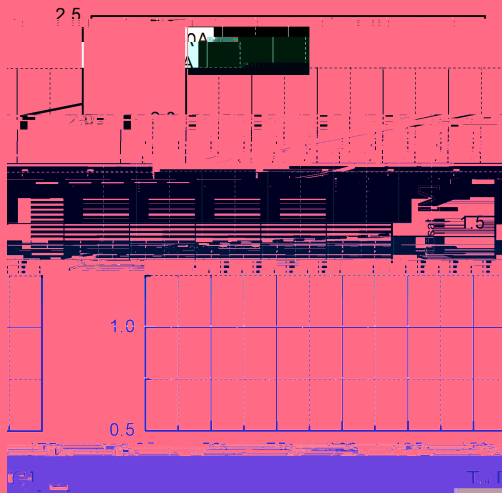


Fig 7. Typical V_{CEsat} as a function of T_{vj}

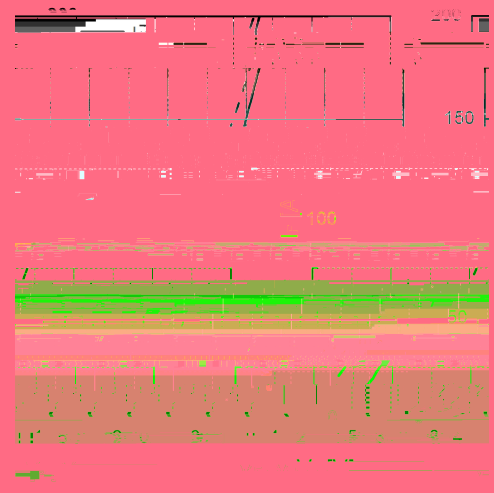


Fig 8. Typical I_F as a function of V_F

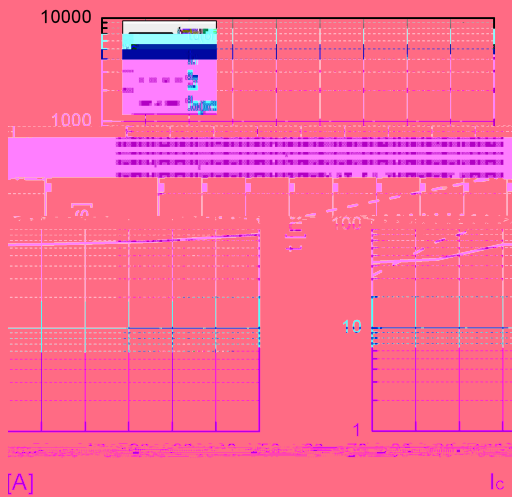


Fig 9. Typical switching time as a function of I_C

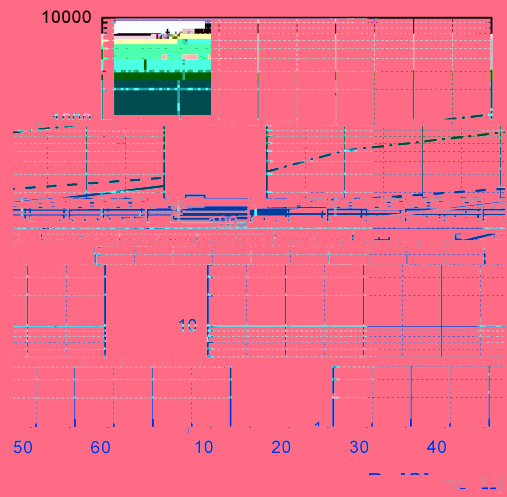


Fig 10. Typical switching times as a function of R_G

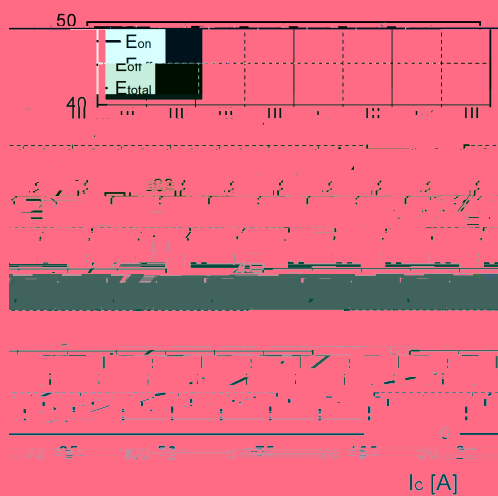


Fig 11. Typical switching energy losses as a function of I_C

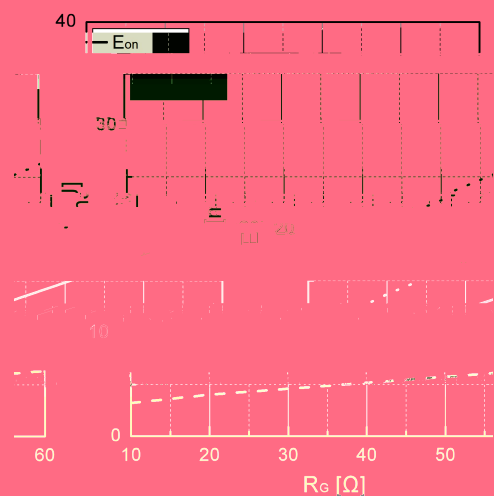


Fig 12. Typical switching energy losses as a function of R_G



Date	Revision	Changes
2025-04-08	Rev 1.0	Release of the preliminary datasheet.
2025-04-30	Rev 1.1	Add graph and character update

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