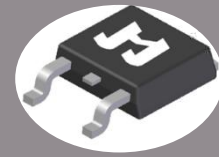
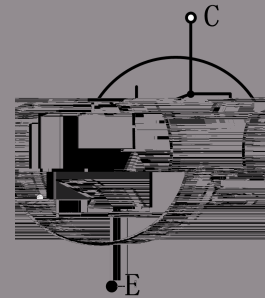


- $V_{CE} = 650V$
- $I_C = 10A @ V_{CE} = 100V$
- $V_{CE(sat)} = 1.8V$

TO-252
















- High ruggedness performance
- 10 $\mu$ s short circuit capability
- Positive  $V_{CE(sat)}$  temperature coefficient
- High efficiency for motor control
- Excellent current sharing in parallel operation
- RoHS compliant



- Home appliances
- Motor drives

Type	Marking	Package	Packaging method
JJT10N65ST	T1065ST	TO-252	Tape and reel



												
												
CES	Collector-emitter voltage										650	V
GES	Gate-emitter voltage										±20	V
	Continuous collector current ( $I_{c=25}$ )										20	A
C	Continuous collector current ( $I_{c=100}$ )										10	A
	Rated collector current – limited by										40	A

Power dissipation (  $I_{c=25}$  )

75

Power dissipation (  $I_{c=100}$  )





CES	Collector-emitter breakdown voltage	$V_{GE}=0V, I_C=250\mu A$	650	-	-	V
CES	Collector-emitter leakage current	$V_{CE}=650V, V_{GE}=0V$	-	-	50	$\mu A$
	Gate leakage current, forward	$V_{GE}=20V, V_{CE}=0V$	-	-	100	nA
GES	Gate leakage current, reverse	$V_{GE}=-20V, V_{CE}=0V$	-	-	-100	nA
G						



(  $v_j=25$  unless otherwise specified)

F	Diode forward voltage	$I_F=10A$	-	1.4	-	V
		$I_F=10A, v_j=175$	-	1.2	-	V
$t_{rr}$	Diode reverse recovery time	$V_R=400V$ $I_F=10A$ $d I_F/d t = -750A/\mu s$	-	57	-	ns
$I_{rrm}$	Diode peak reverse recovery current		-	12	-	A
$Q_{rr}$	Diode reverse recovery charge		-	411	-	nC
$t_{rr}$	Diode reverse recovery time	$V_R=400V$ $I_F=10A$ $d I_F/d t = -750A/\mu s$ $v_j=175$	-	124	-	ns
$I_{rrm}$	Diode peak reverse recovery current		-	13	-	A
$Q_{rr}$	Diode reverse recovery charge		-	737	-	nC

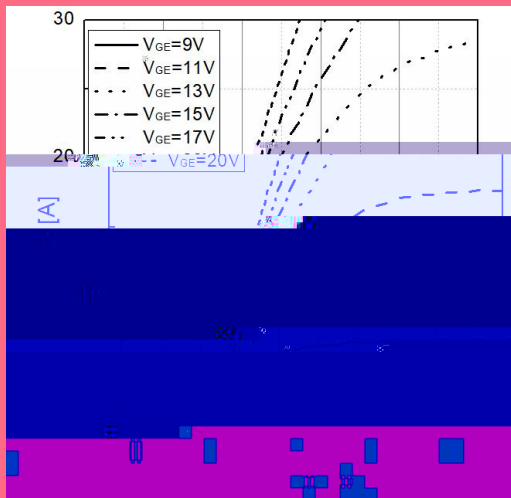


Fig 1. Typical output characteristic (  $v_j=25^\circ\text{C}$  )

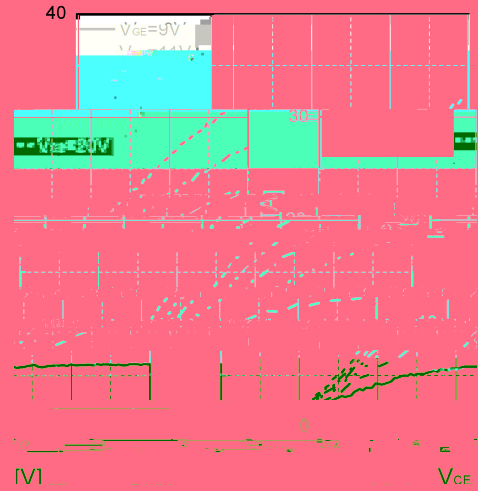


Fig 2. Typical output characteristic(  $v_j=175^\circ\text{C}$  )

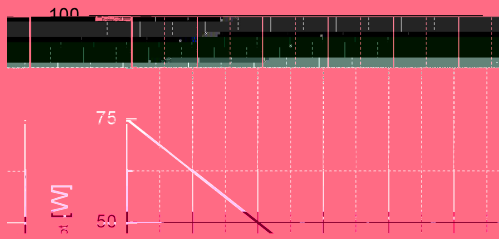


Fig 3. Power dissipation as a function of  $v_j$

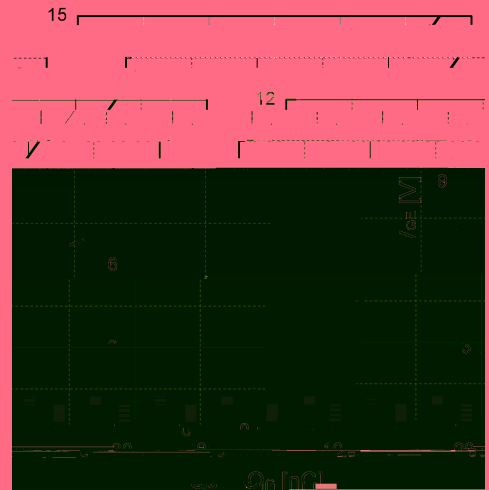


Fig 4. Typical Gate charge

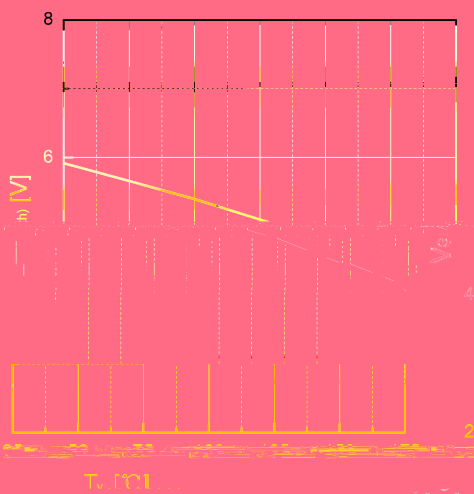


Fig 5. Typical  $V_{GE(th)}$  as a function of  $v_j$  ( $c=1\text{mA}$ )

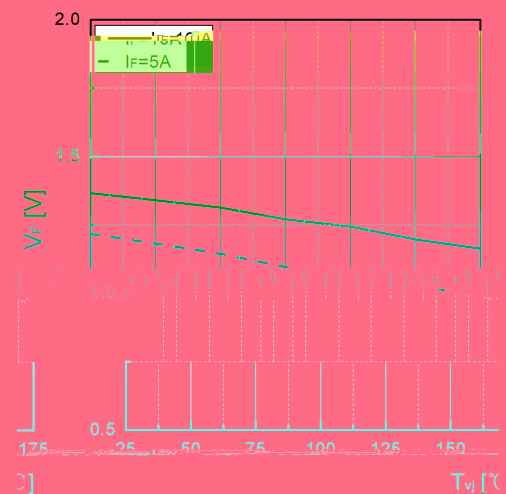


Fig 6. Typical  $V_F$  as a function of  $v_j$

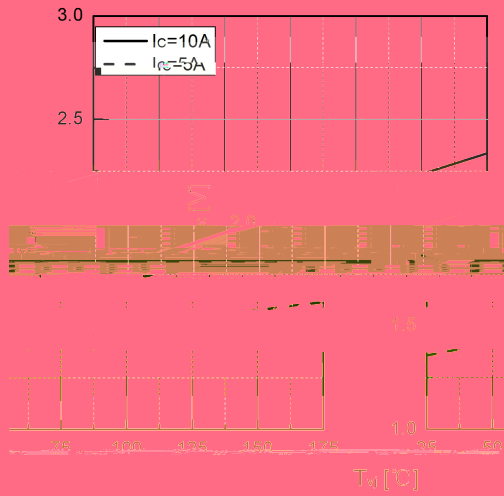


Fig 7. Typical  $L_{ESat}$  as a function of  $T_q$

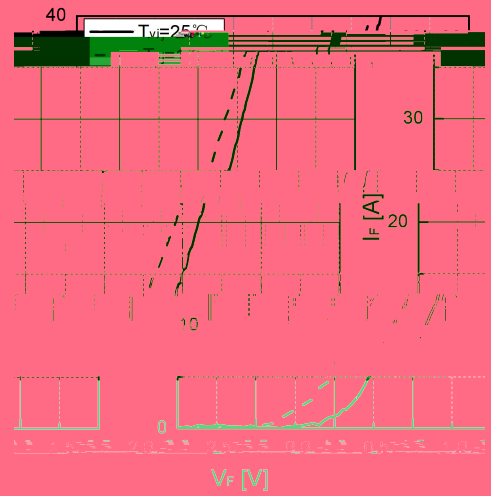


Fig 8. Typical  $V_f$  as a function of  $I_f$

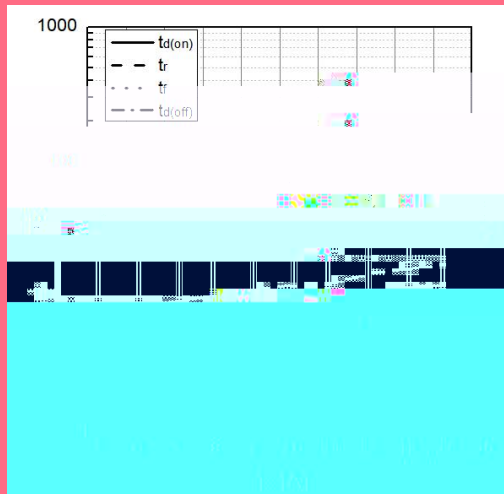


Fig 9. Typical switching time as a function of  $I_c$

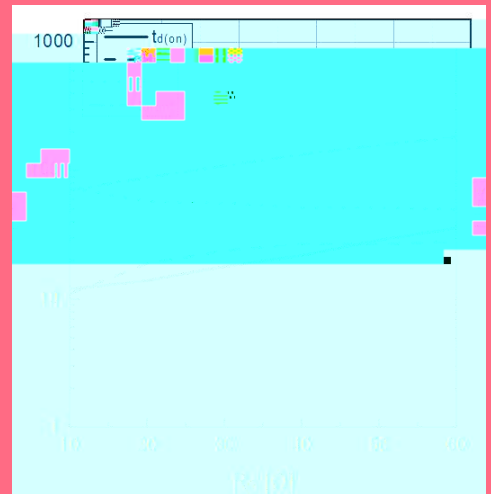


Fig 10. Typical switching times as a function of  $I_g$

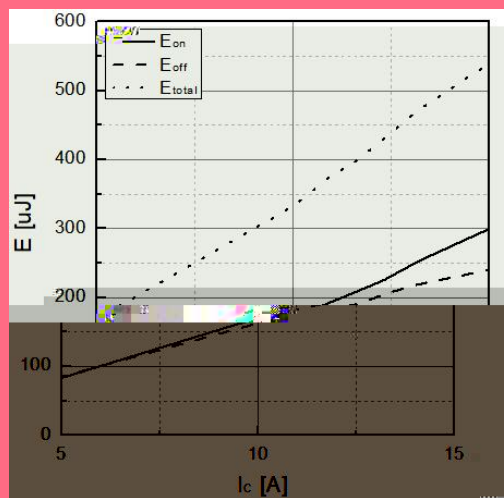


Fig 11. Typical switching energy losses as a function of  $I_c$

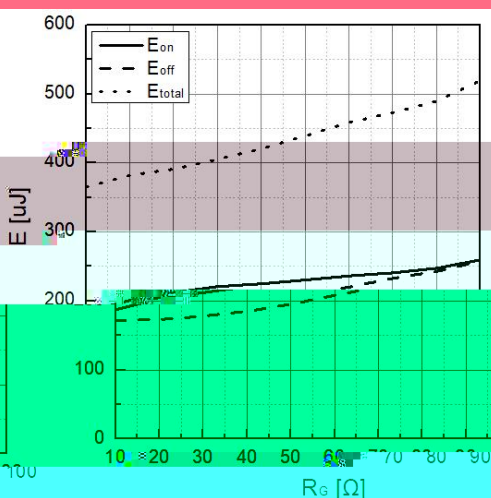
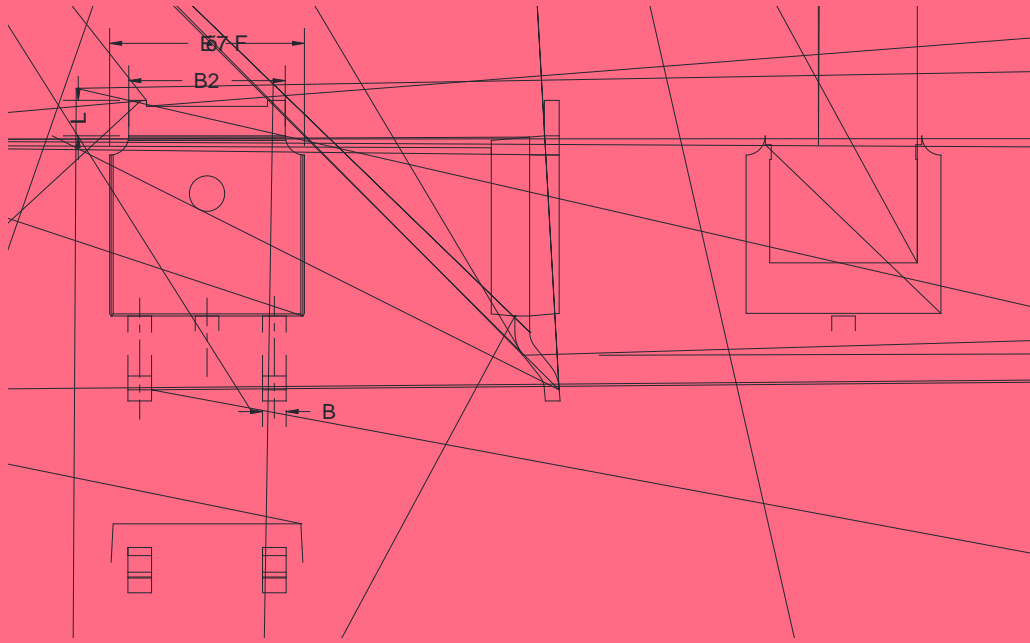


Fig 12. Typical switching energy losses as a function of  $R_e$







Date	Revision	Changes
2023-12-23	1.0	Initial release
2025-02-06	Rev 1.1	Update
2025-04-08	Rev 1.2	Character Update