





CES	Collector-emitter voltage	650	V
GES	Gate-emitter voltage	$\pm 20$	V
C	Continuous collector current ( $\tau_c=25 \mu s$ )	60	A
	Continuous collector current ( $\tau_c=100 \mu s$ )	30	A
CM	Pulsed collector current, $I_p$ limited by $v_{jmax}$	120	A
F	Diode continuous forward current ( $\tau_c=100 \mu s$ )	30	A
FM	Diode maximum current, $I_p$ limited by $v_{jmax}$	80	A
sc	Short circuit withstand time	10	$\mu s$
tot	Power dissipation ( $\tau_c=25 \mu s$ )	300	W
	Power dissipation ( $\tau_c=100 \mu s$ ) #		





$d_{(on)}$  Turn-on delay time - 30 - ns

$r_{DS(on)}$   $R_{\theta(jc)}$

$V_{CC}=400V$   
 $V_{GE}=0/15V$   
 $I_C=30A$   
 $G=10$   
Inductive load

(  $v_j=25$  unless otherwise specified)

F	Diode forward voltage	$I_F=30A$	-	1.7	-	V
		$I_F=30A, v_j=175$	-	1.4	-	V
$t_{rr}$	Diode reverse recovery time	$V_R=400V$ $I_F=30A$ $d I_F/d t =-550A/\mu s$	-	105	-	ns
$I_{rrm}$	Diode peak reverse recovery current		-	16	-	A
$Q_{rr}$	Diode reverse recovery charge		-	876	-	nC
$t_{rr}$	Diode reverse recovery time	$V_R=400V$ $I_F=30A$ $d I_F/d t =-550A/\mu s$ $v_j=175$	-	171	-	ns
$I_{rrm}$	Diode peak reverse recovery current		-	26	-	A
$Q_{rr}$	Diode reverse recovery charge		-	2650	-	nC

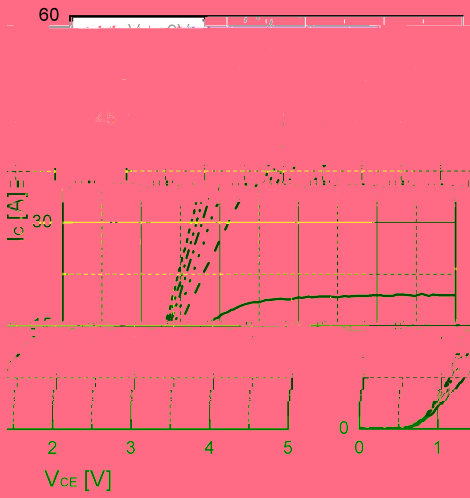


Fig 1. Typical output characteristic (  $v_j=25$  )

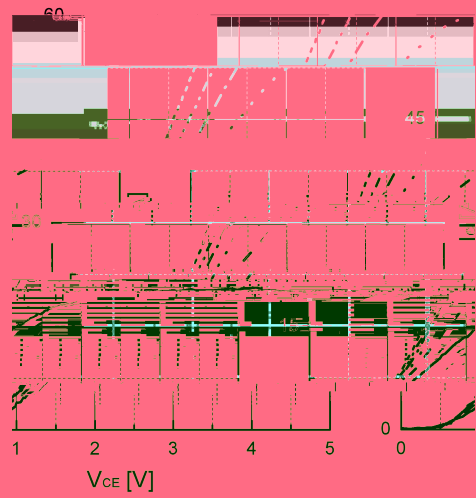


Fig 2. Typical output characteristic(  $v_j=175$  )

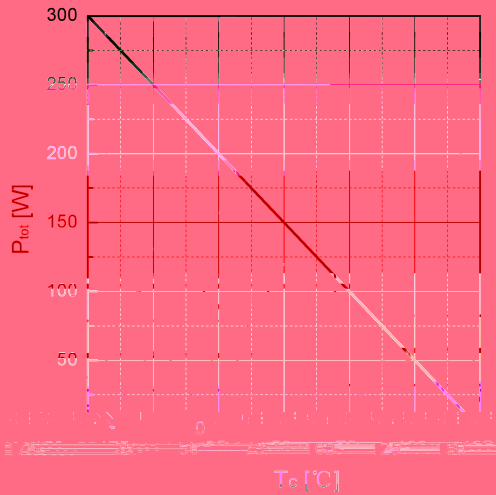


Fig 3. Power dissipation as a function of

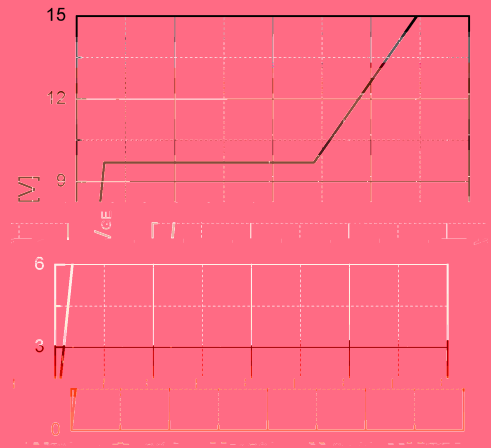


Fig 4. Typical Gate charge

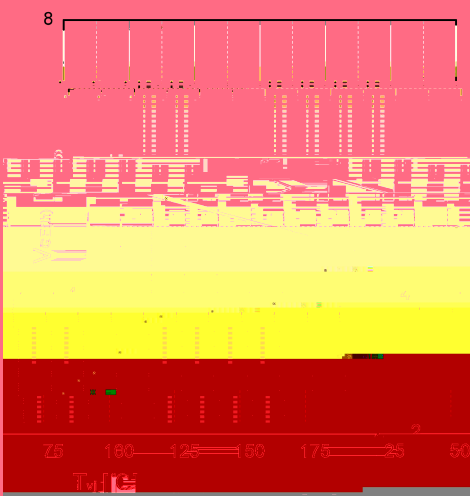


Fig 5. Typical  $\theta_{GE(th)}$  as a function of  $v_j$   
(  $c=1mA$  )

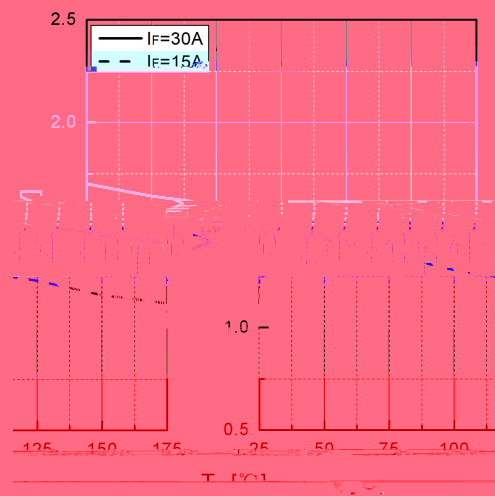


Fig 6. Typical  $\theta_F$  as a function of  $v_j$

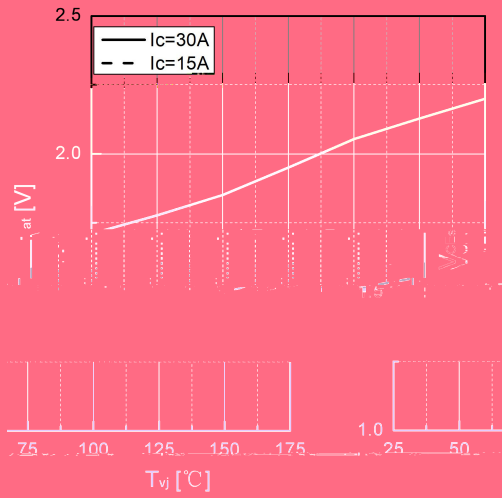


Fig 7. Typical  $V_{CEsat}$  as a function of  $T_{vj}$

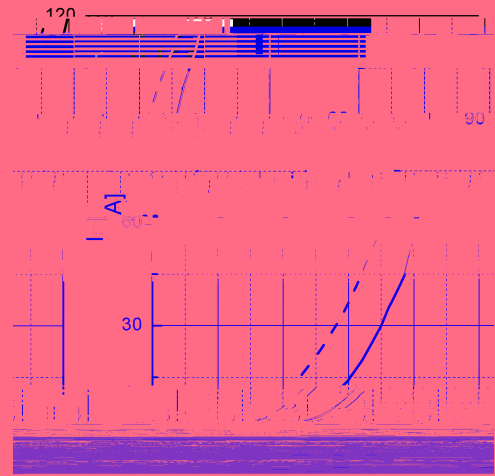


Fig 8. Typical  $F$  as a function of  $F$

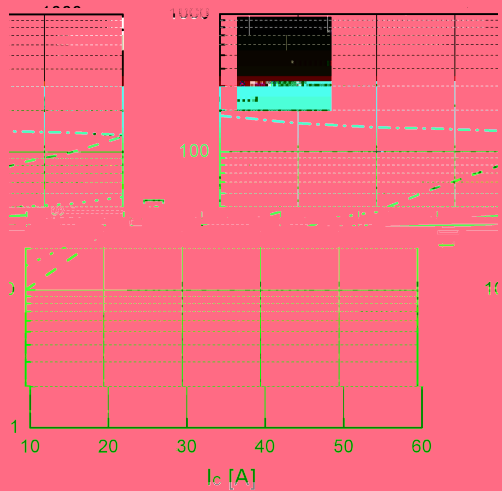


Fig 9. Typical switching time as a function of  $I_c$

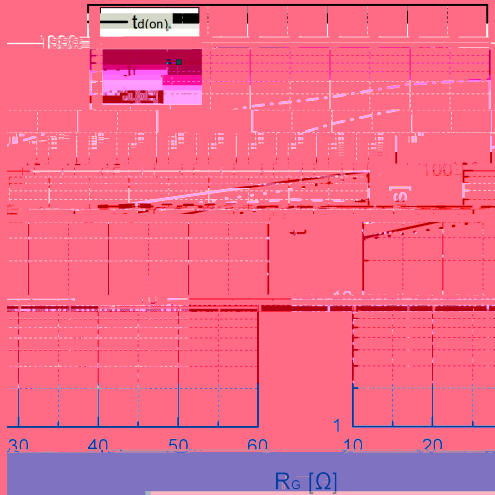


Fig 10. Typical switching times as a function of  $R_e$

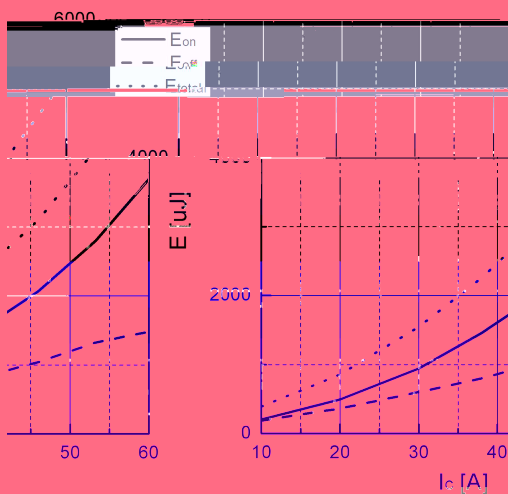


Fig 11. Typical switching energy losses as a function of  $I_c$

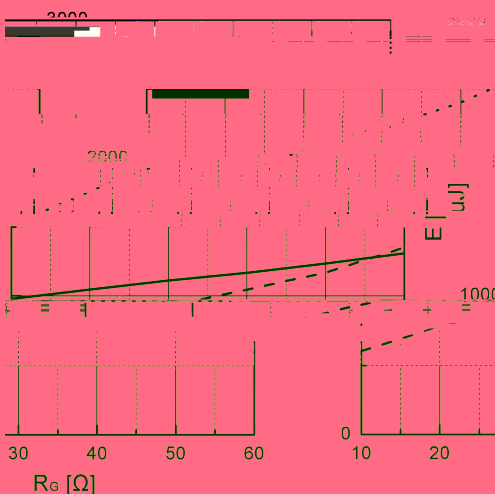


Fig 12. Typical switching energy losses as a function of  $R_e$

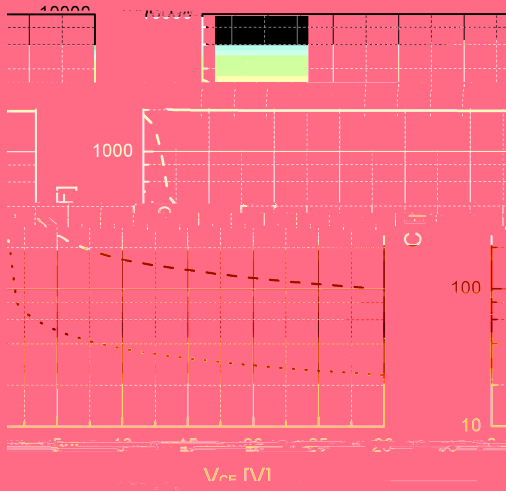


Fig 13. Typical capacitance as a function of  $C_{CE}$   
( $f=1\text{MHz}$ ,  $V_{GE}=0\text{V}$ )

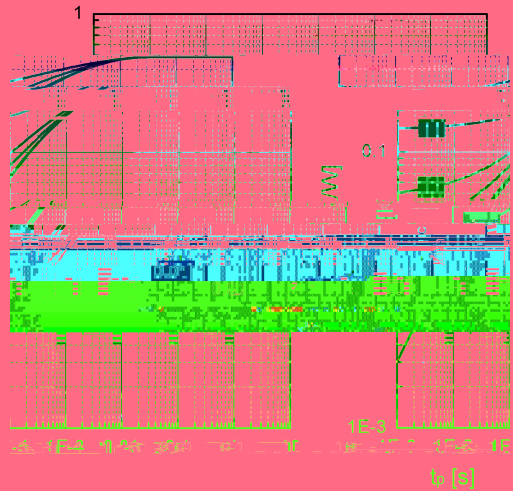


Fig 14. Transient thermal impedance of IGBT





Date	Revision	Changes
2024-03-20	Rev 1.1	Update
2024-05-17	Rev 1.2	Update
2025-03-09	Rev 1.3	Character update

PLEASE NOTE - Jiangsu JieJie Microelectronics Co., Ltd ("JJM") reserves the right to amend, correct, modify

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