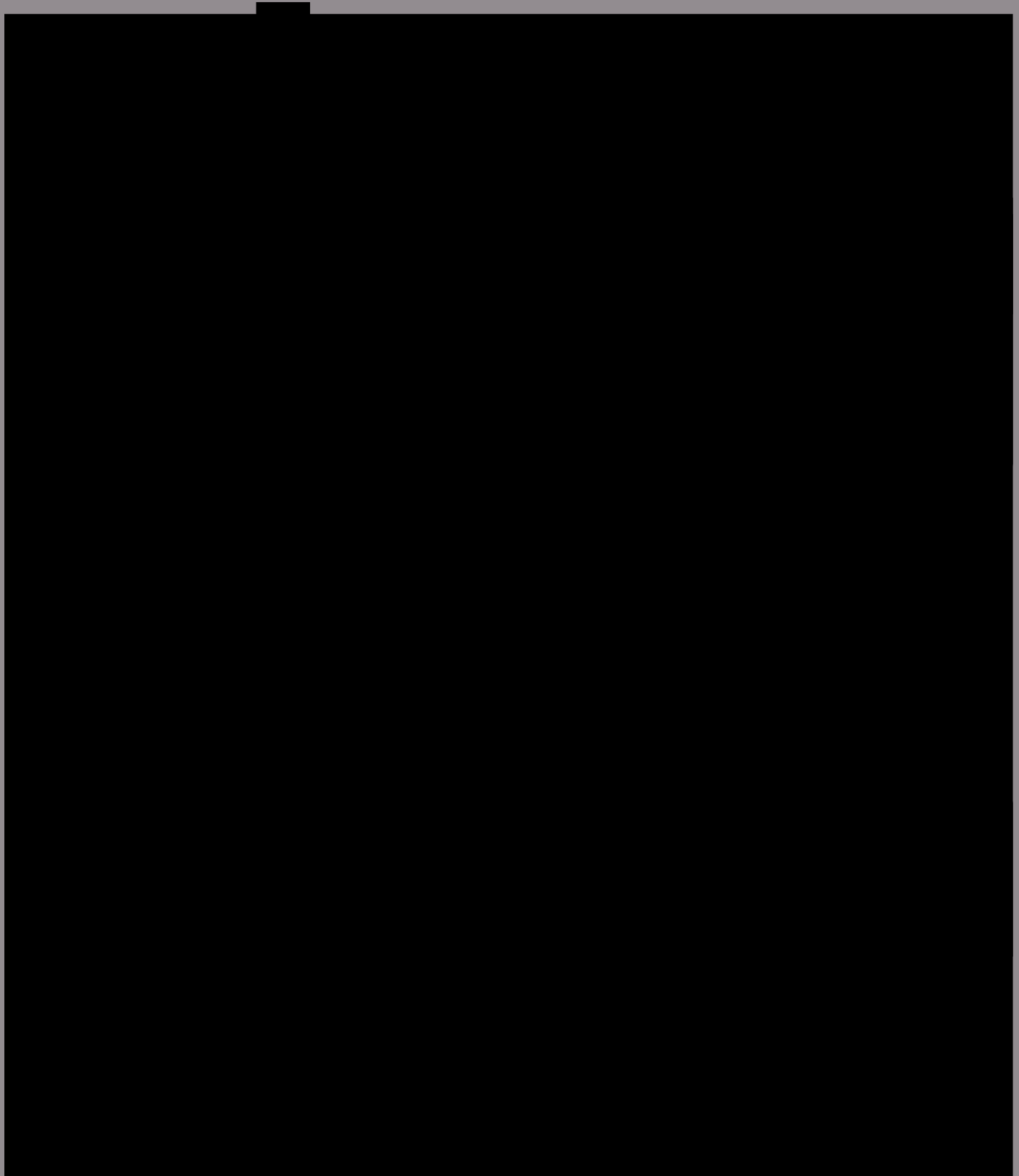


650V 10A Trench and Field Stop IGBT

JJT10N65SC





CES	Collector-emitter voltage	650	V
GES	Gate-emitter voltage	± 20	V
C	Continuous collector current ($\tau_c=25 \mu s$)	20	A
	Continuous collector current ($\tau_c=100 \mu s$)	10	A
CM	Pulsed collector current, I_p limited by v_{jmax}	40	A
F	Diode continuous forward current ($\tau_c=100 \mu s$)	10	A
FM	Diode maximum current, I_p limited by v_{jmax}	40	A
sc	Shm		



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	μA
	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
$V_{GE(th)}$	Gate-emitter threshold voltage	$V_{GE}=V_{CE}, I_C=1mA$	5.3	5.8	6.3	V
$V_{CE(sat)}$	Collector-emitter saturation voltage	$V_{GE}=15V, I_C=10A$ $V_{GE}=15V, I_C=10A$	-	1.8	-	V

($v_j=25$ 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

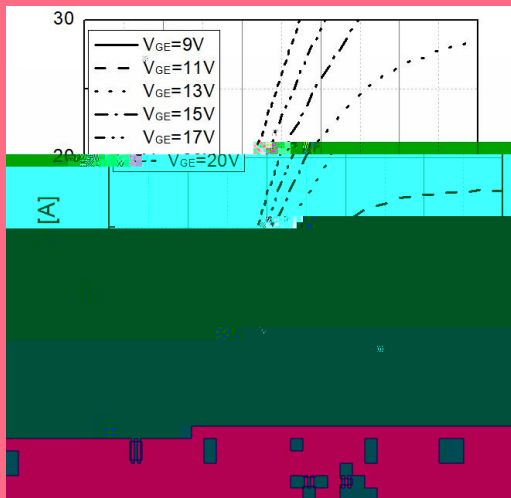


Fig 1. Typical output characteristic ($v_j=25$)

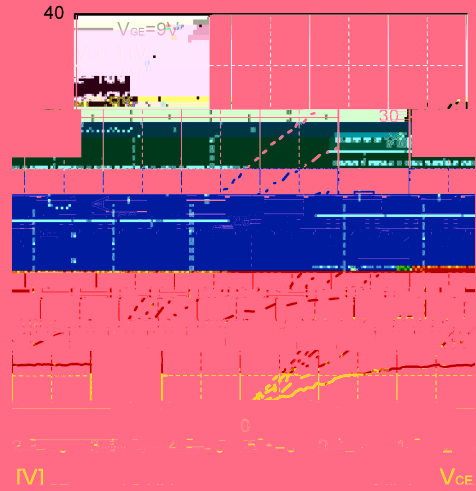


Fig 2. Typical output characteristic($v_j=175$)

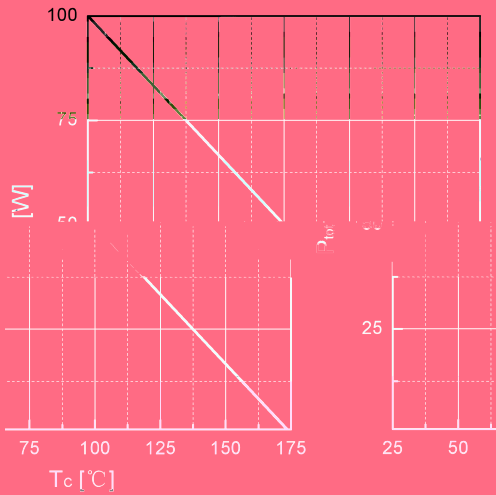


Fig 3. Power dissipation as a function of

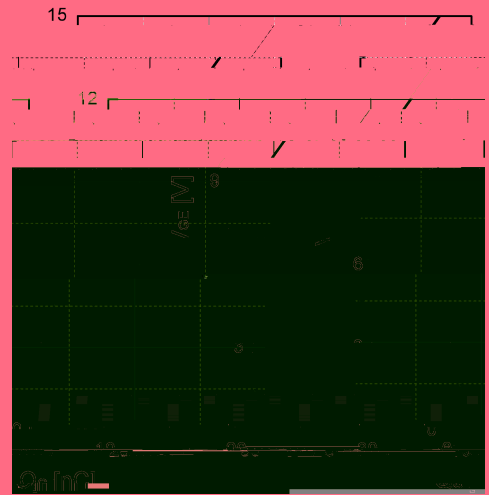


Fig 4. Typical Gate charge

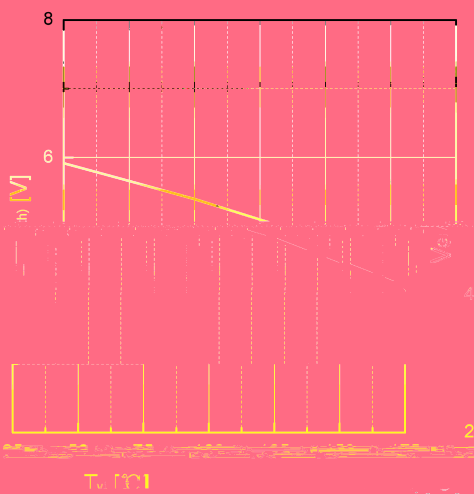


Fig 5. Typical $V_{GE(th)}$ as a function of v_j ($c=1mA$)

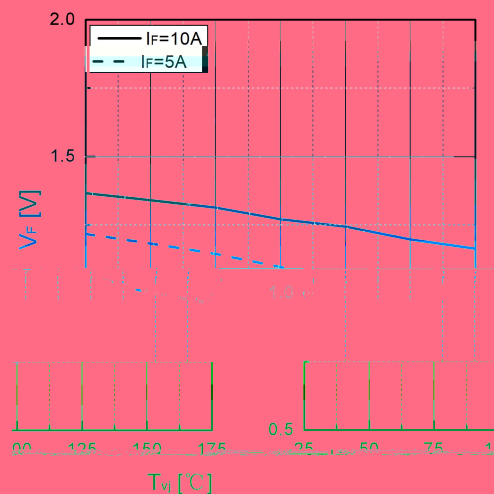


Fig 6. Typical V_F as a function of v_j



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