



Maximum Ratings



Electrical Characteristics of the IGBT $T_j = 25$ unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.
-----------	--------	------------	------	------

**Electrical Characteristics of the Diode** $T_j=25$ unless otherwise specified

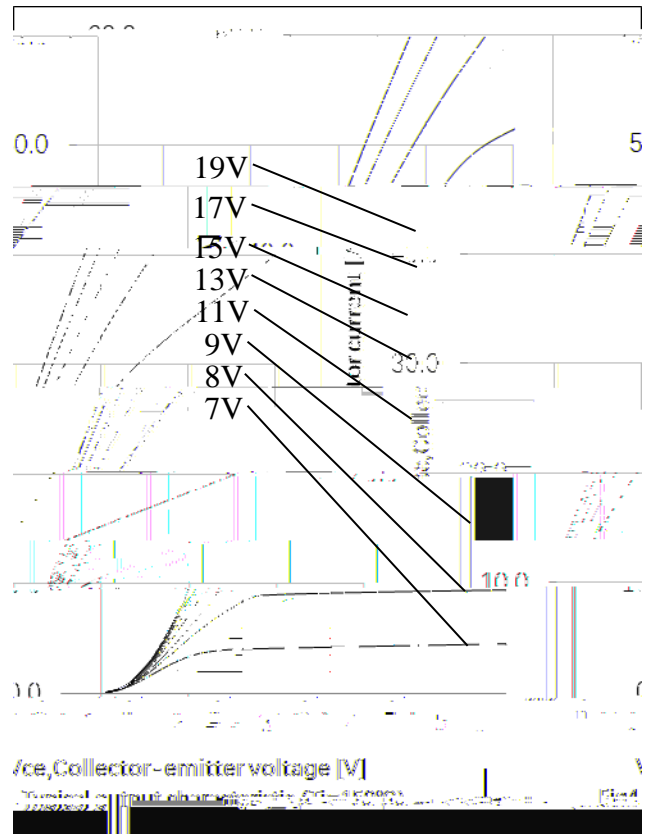
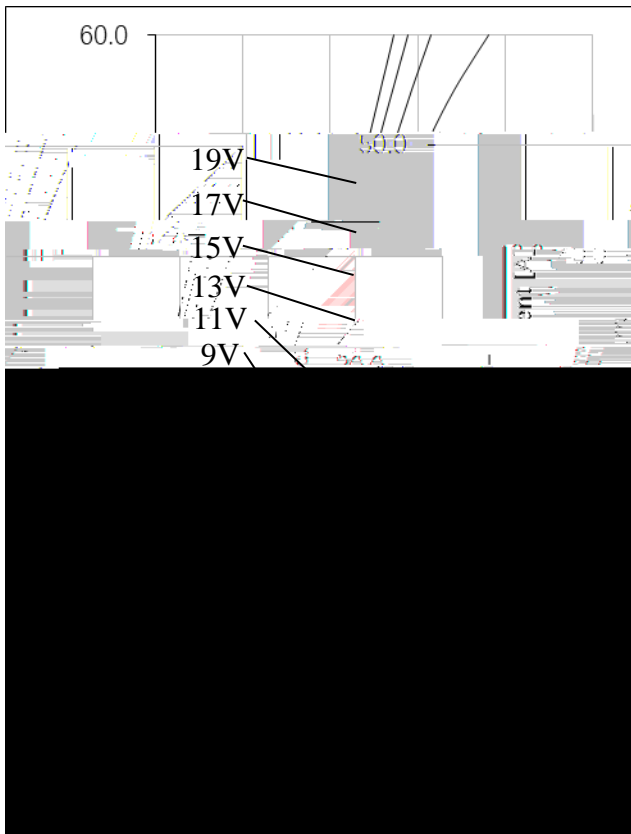
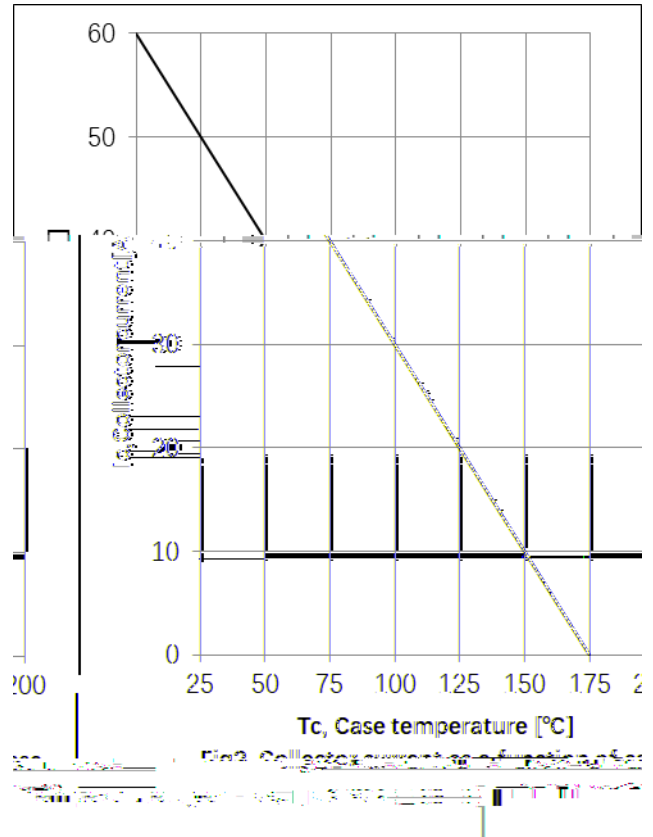
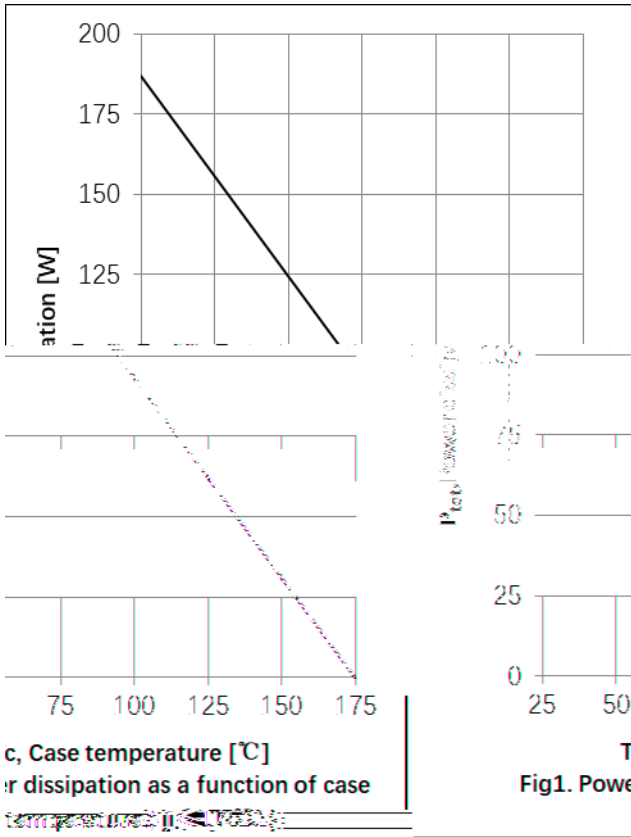
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Static						
Diode Forward Voltage	V_F	$I_F=30A$ $T_j=25^{\circ}C$, $T_j=125^{\circ}C$ $T_j=150^{\circ}C$		1.90 1.85 1.75	2.60	V

Switching Characteristic, Inductive Load

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Dynamic , at $T_j=25$						
Turn-on Delay Time	$t_{d(on)}$	$V_{CC}=400V, I_C=30A,$ $V_{GE}=0V\sim 15V,$ $R_g=10, L_s=60nH$	-	8	-	ns
Rise Time	t_r		-	22	-	ns
Turn-on Energy	E_{on}		-	1.05	-	mJ
Turn-off Delay Time	$t_{d(off)}$		-	80	-	ns
Fall Time	t_f		-	-	20.52	-



DGW30N65CTH



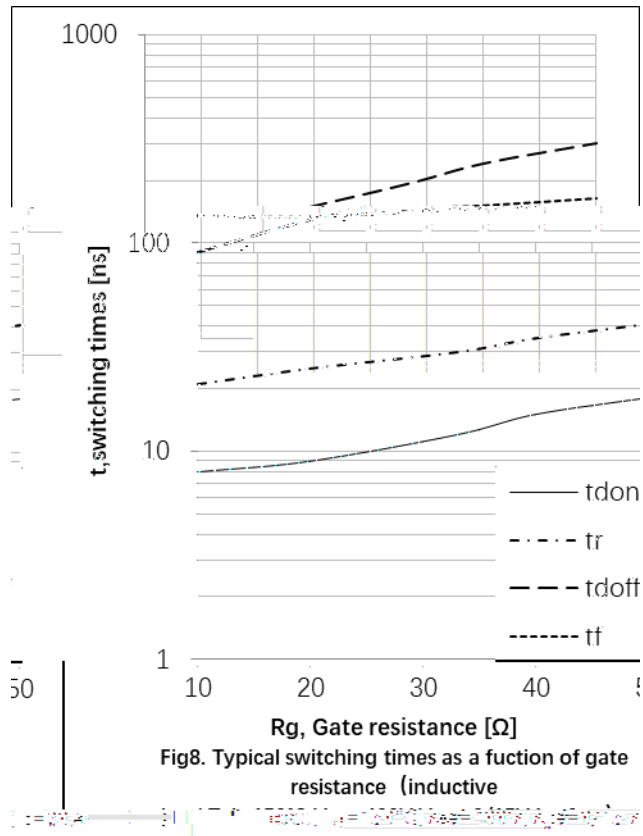
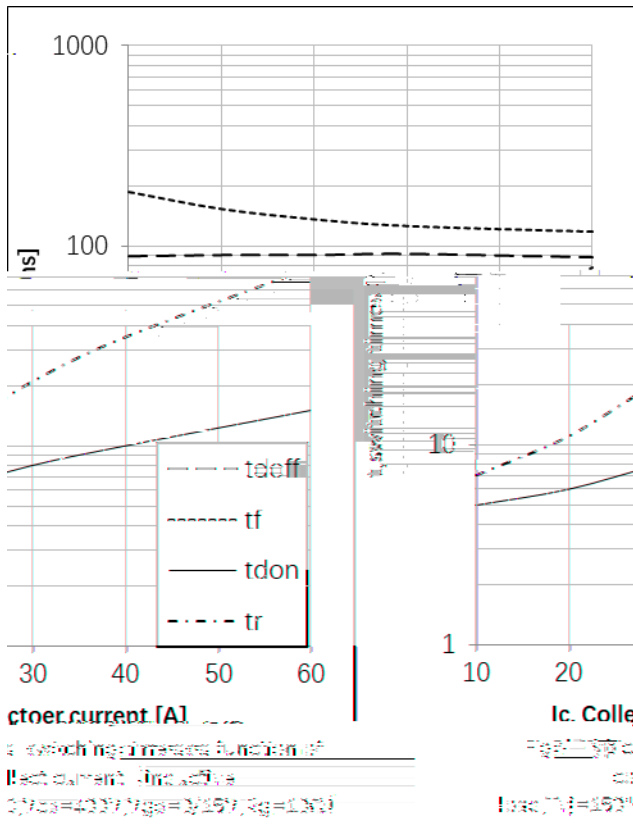
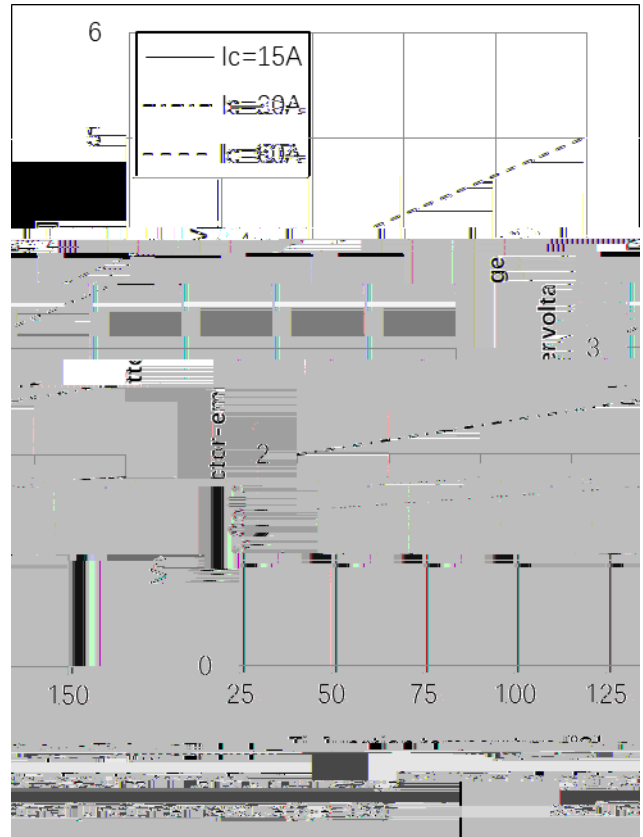
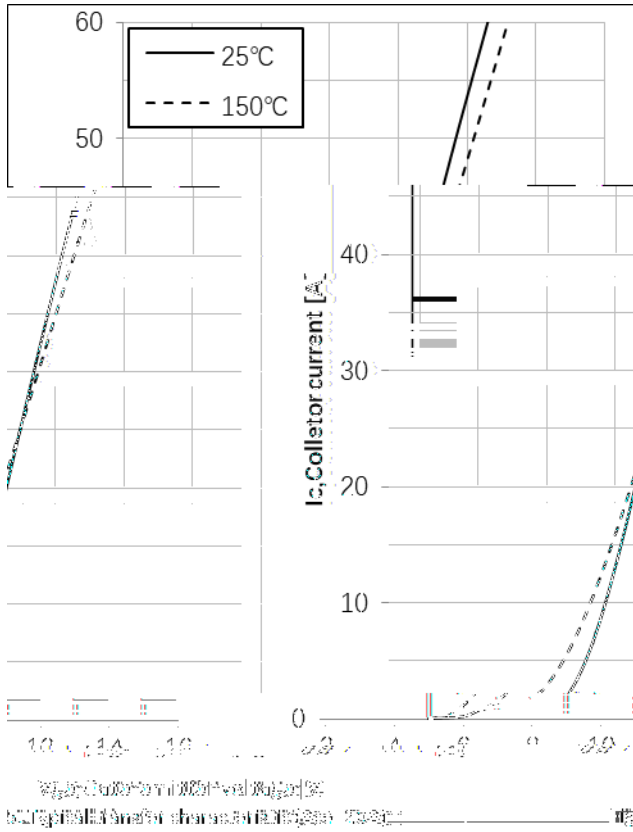


Fig8. Typical switching times as a function of gate resistance (inductive)

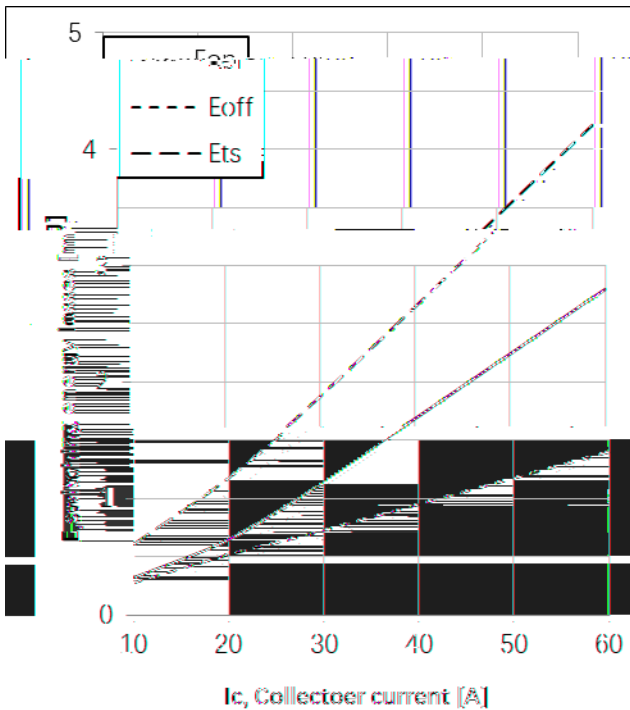
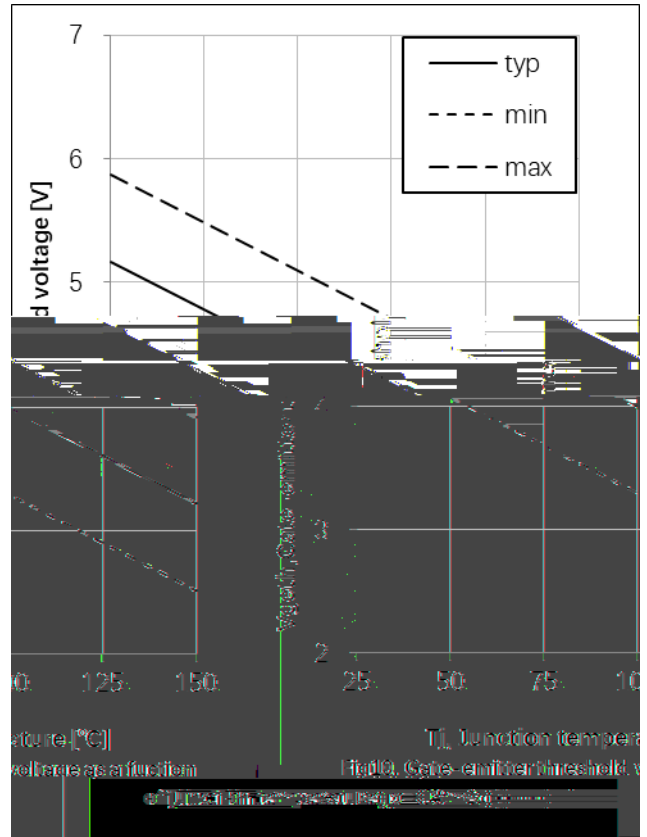
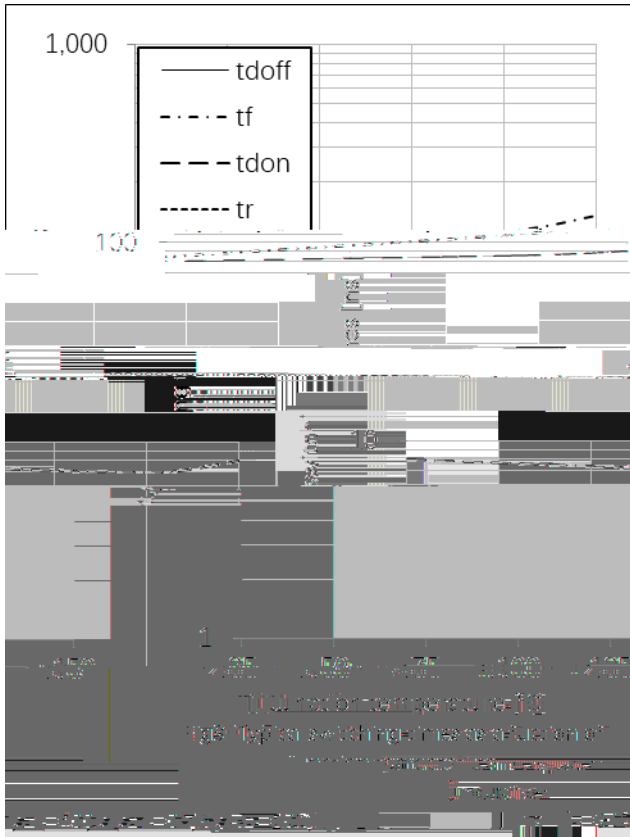


Fig11. Typical switching energy losses as a function of collector current

I_{load} = 1.0 A, T_{case} = 100 °C, V_{ce} = 400 V, V_{gs} = 15 V, R_g = 10 Ω

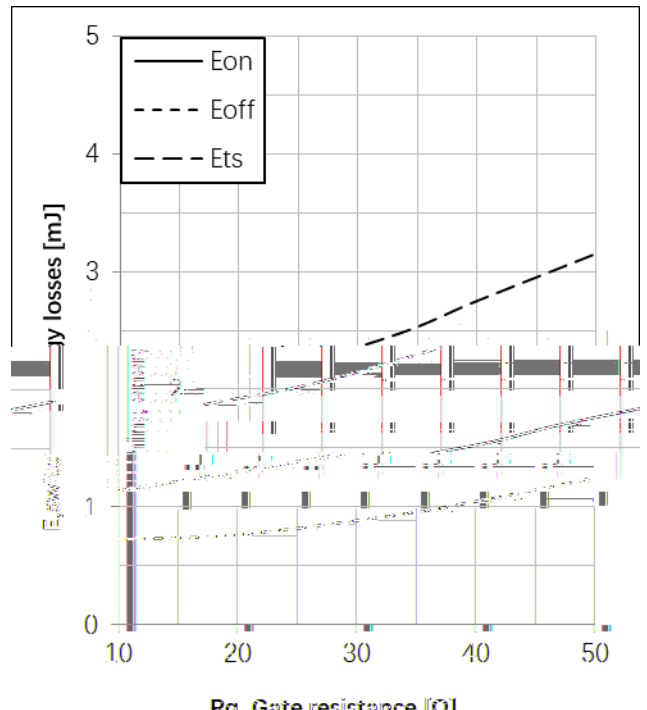
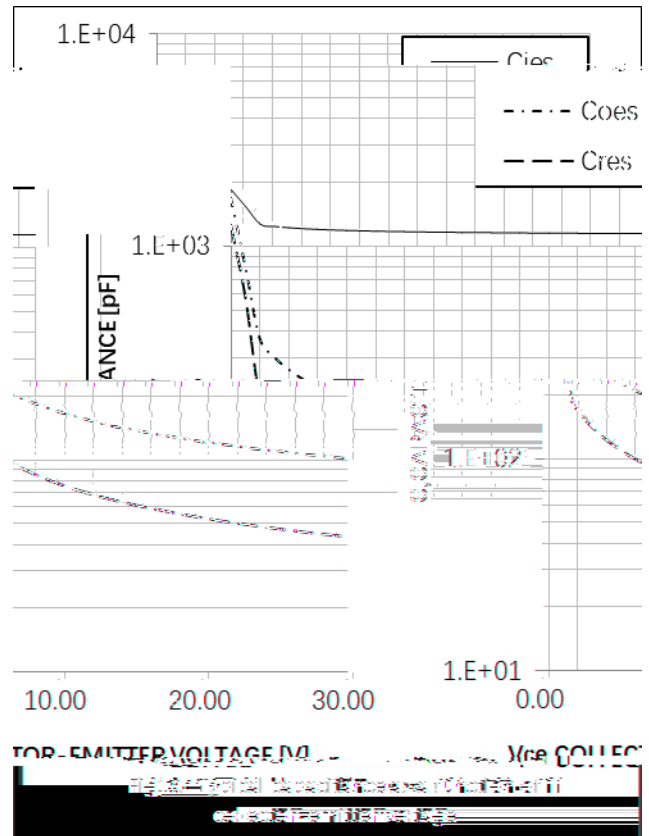
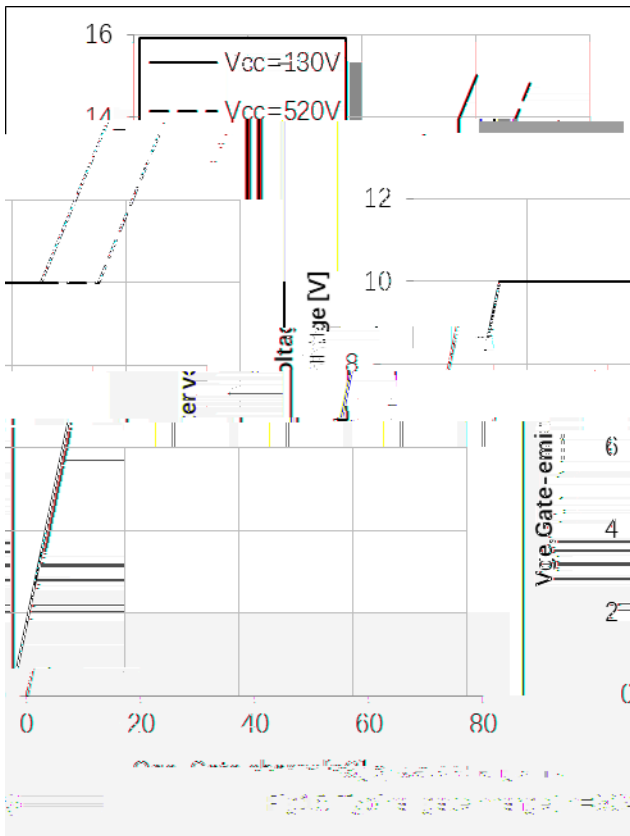
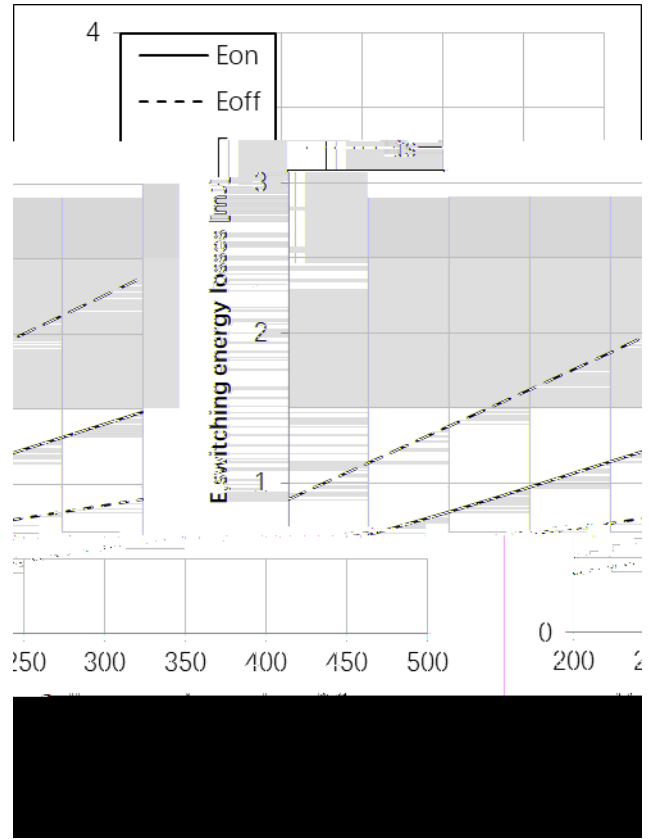
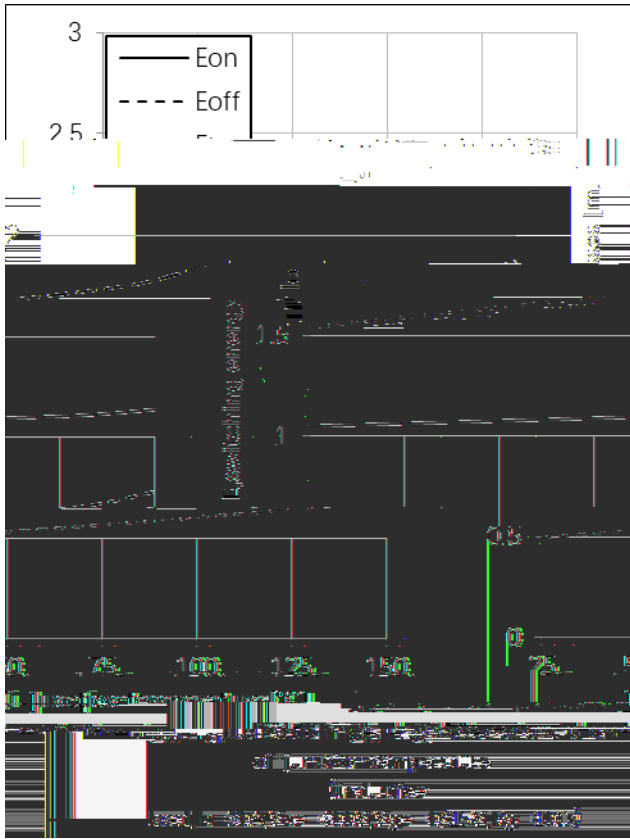
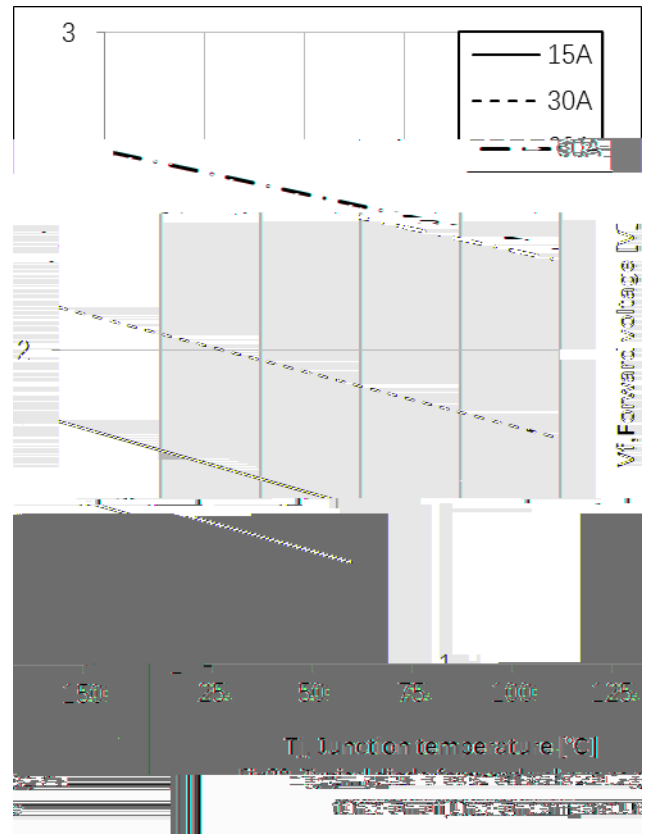
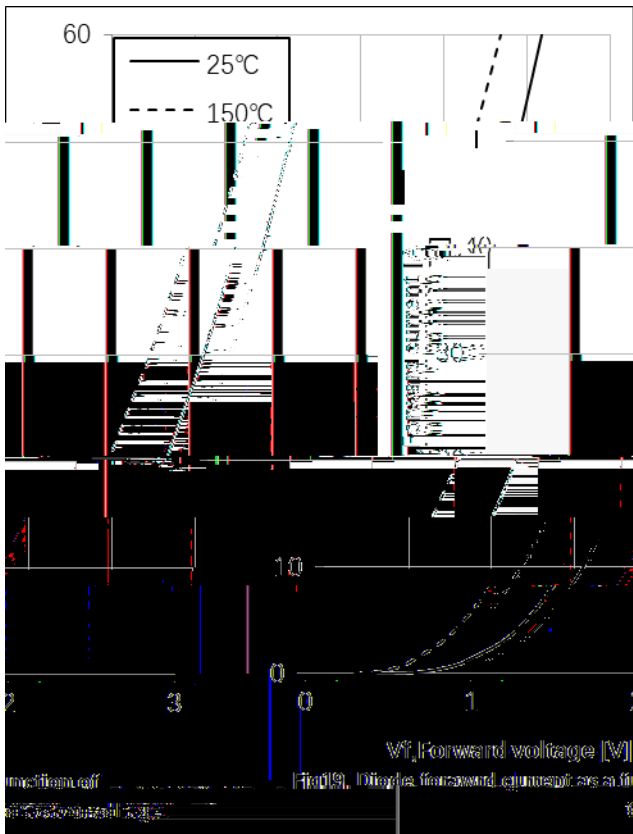
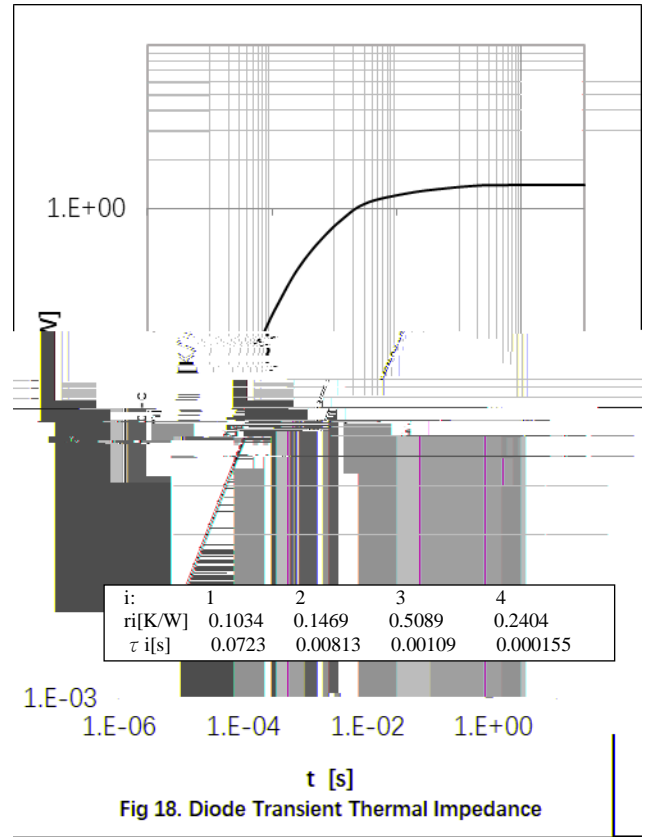
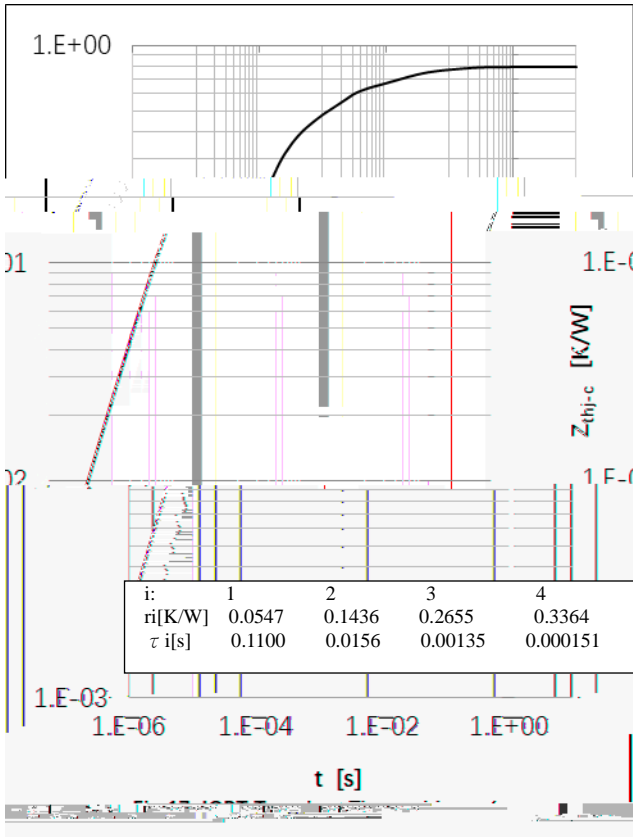
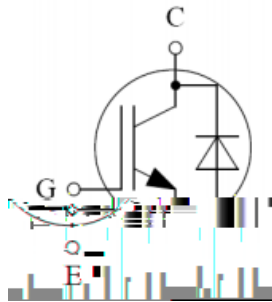


Fig12. Typical switching energy losses as a function of gate resistance (inductive)

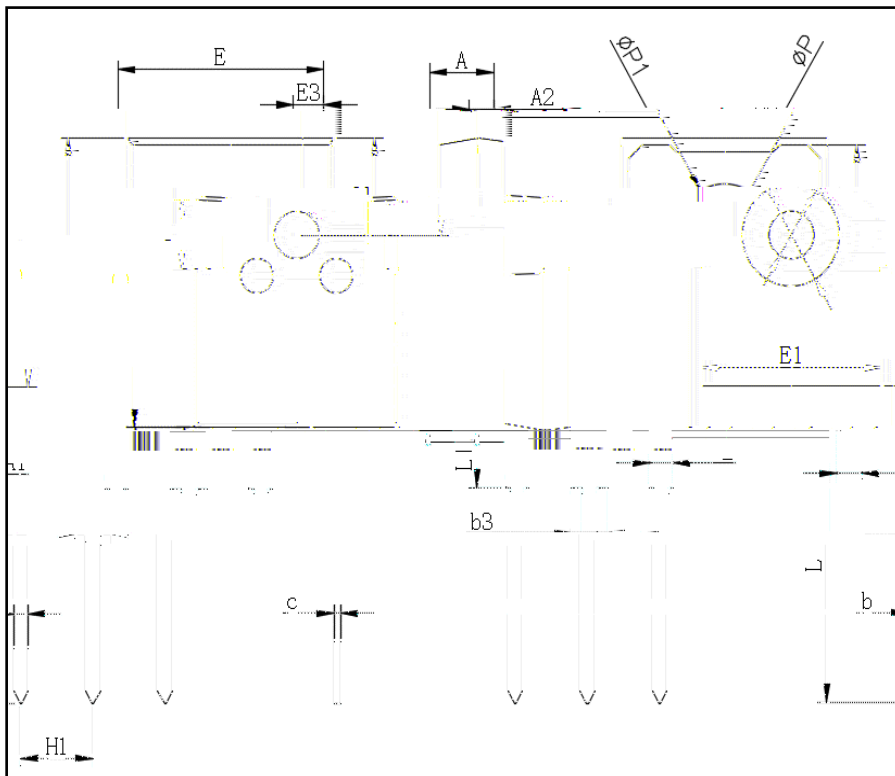
I_{load} = 1.0 A, T_{case} = 100 °C, V_{ce} = 400 V, V_{gs} = 15 V, I_{load} = 1.0 A







Package Outline Information



TO-247AB		
Dim	Min	Max
A	4.80	5.20
A1	2.21	2.61
A2	1.85	2.15
b	1.0	1.4
b2	1.91	2.21
C	0.5	0.7
D	20.70	21.30
D1	16.25	16.85
E	15.50	16.10
E1	13.0	13.6
E2	4.80	5.20
E3	2.30	2.70
L	19.62	20.22
L1	-	4.30
ΦP	3.40	3.80
ΦP1	-	7.30
S	6.15TYP	
H1	5.44TYP	
b3	2.80	3.20