DGW75N65CTH2A

Operating Junction Temperature	T_j	-40...+175	°C
Storage Temperature	T_s	-55...+150	°C
Soldering Temperature, wave soldering 1.6mm (0.063in.) from case for 10s		260	°C

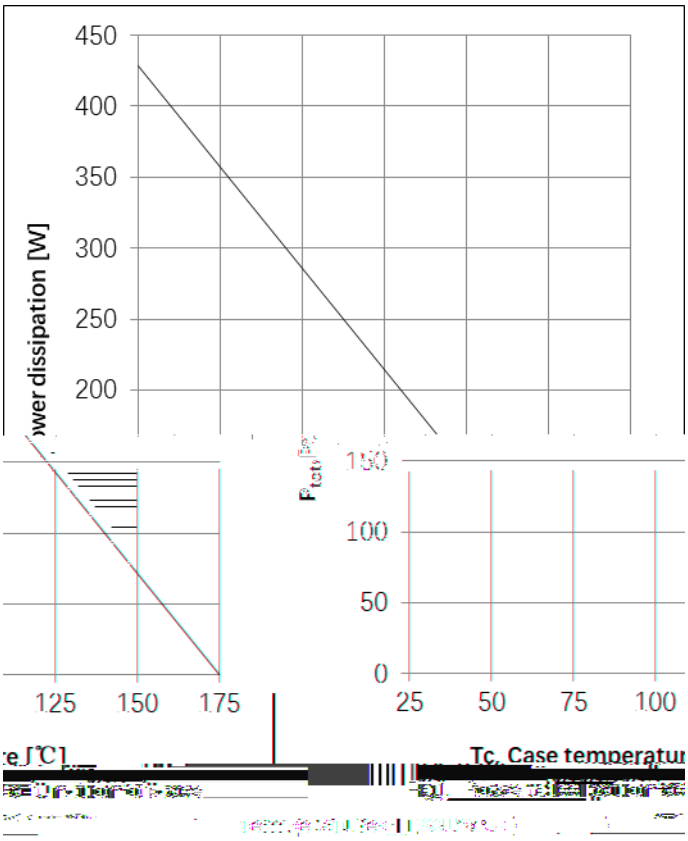
Electrical Characteristics of the IGBT T_j= 25 unless otherwise specified

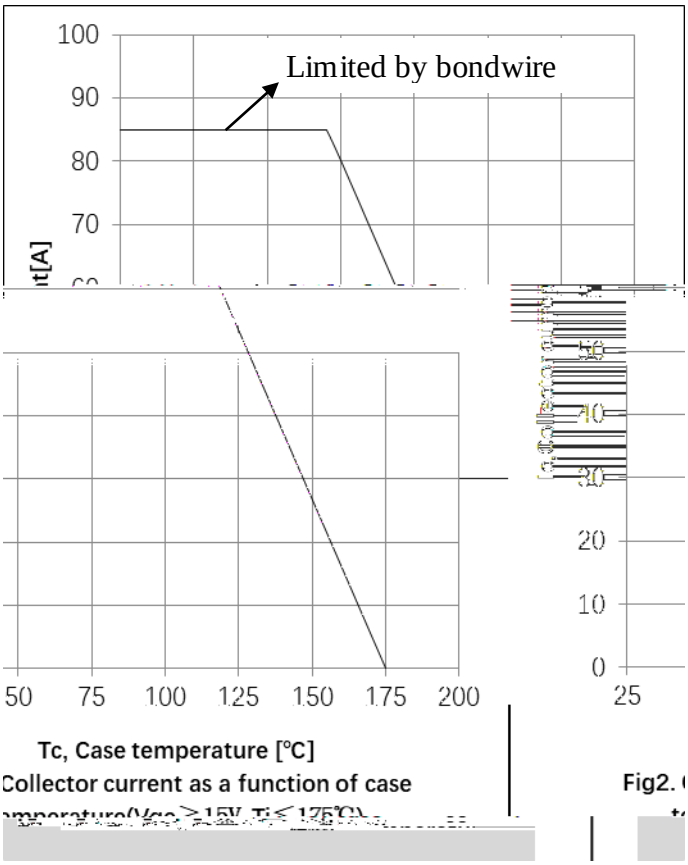
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Static						
Collector-Emitter Breakdown Voltage	BV_{CES}	V_{GE}=0V, I_C	650		-	V
Gate Threshold Voltage	$V_{GE(th)}$	V_{GE}=V_{CE}, I_C=0.75mA	3.2	4.0	4.8	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V_{GE}=15V, I_C=75A T_j=25°C, T_j=125°C T_j=150°C	1.20	1.65 1.95 2.05	2.10	V
Zero Gate Voltage Collector Current	I_{CES}	V_{CE}=650V, V_{GE}=0V T_j= 25°C, T_j=150°C			0.25 3.00	mA
Gate-Emitter Leakage Current	I_{GES}	V_{CE}= 0V, V_{GE}= ± 20V			100	nA

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Dynamic						
Input Capacitance	C_{ies}	V_{CE}= 25V, V_{GE}= 0V, f = 1MHz	-	4.59	-	nF
Reverse Transfer Capacitance	C_{res}		-	0.03	-	
Gate Charge	Q_G	V_{CC}=520V,I_C=75A, V_{GE}=15V	-	0.17	-	uC

Electrical Characteristics of the DIODE

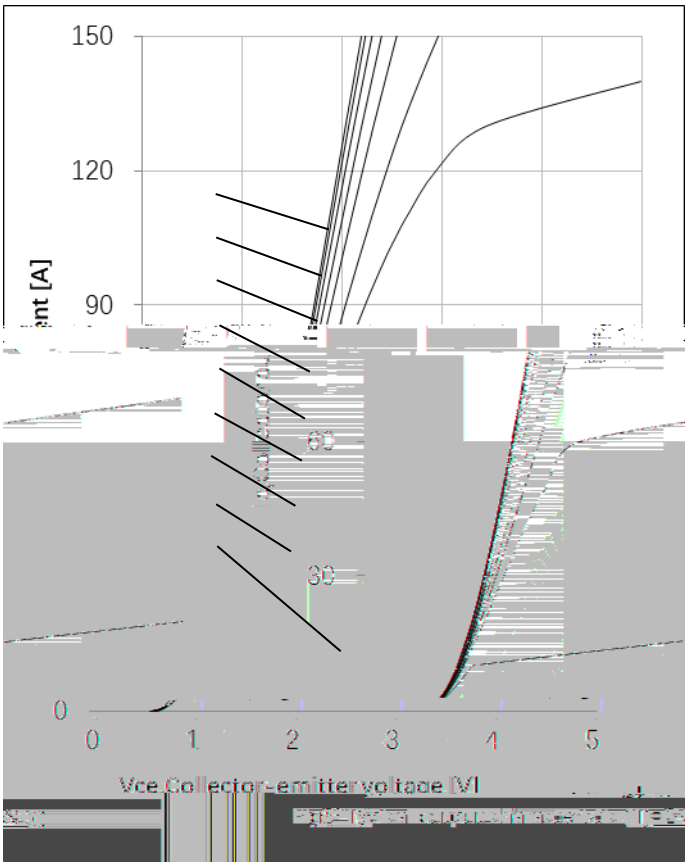
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Dynamic , at T_j= 25						

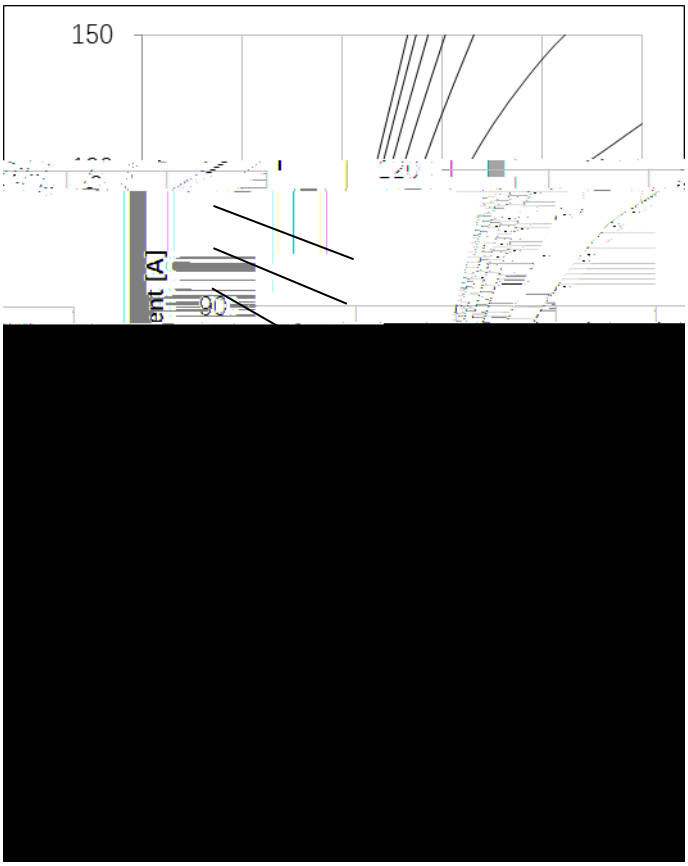




Collector current as a function of case

Fig2.





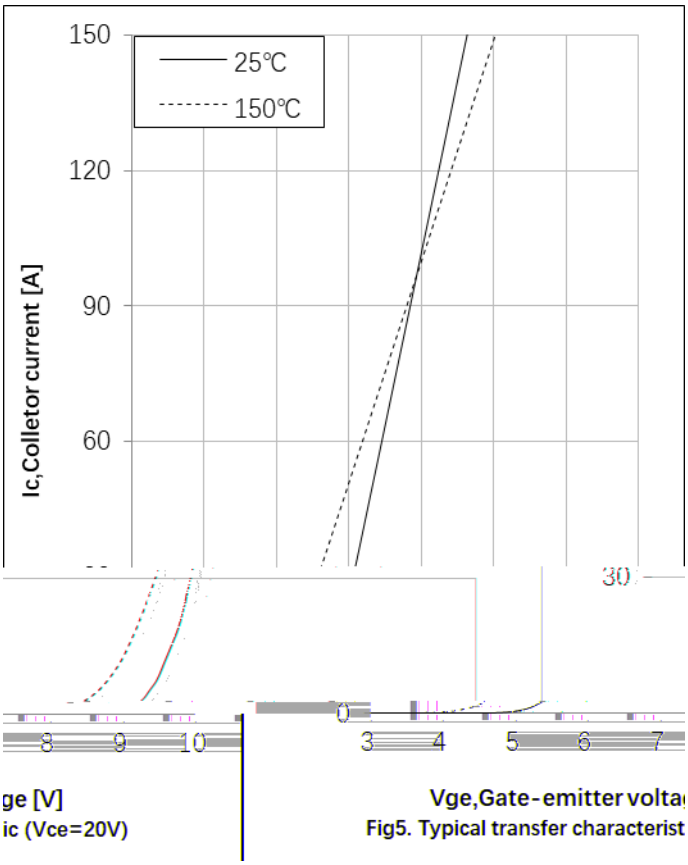
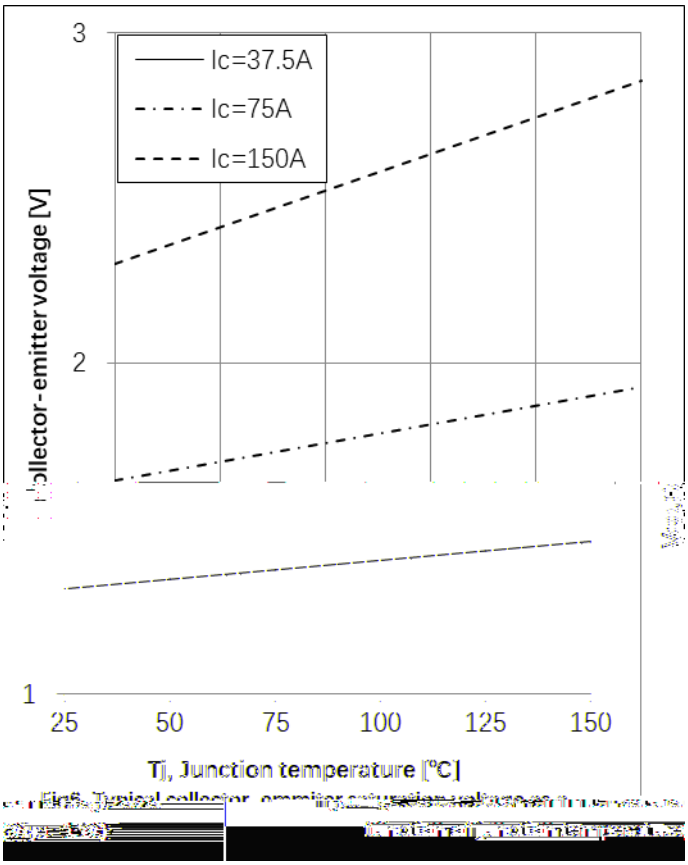
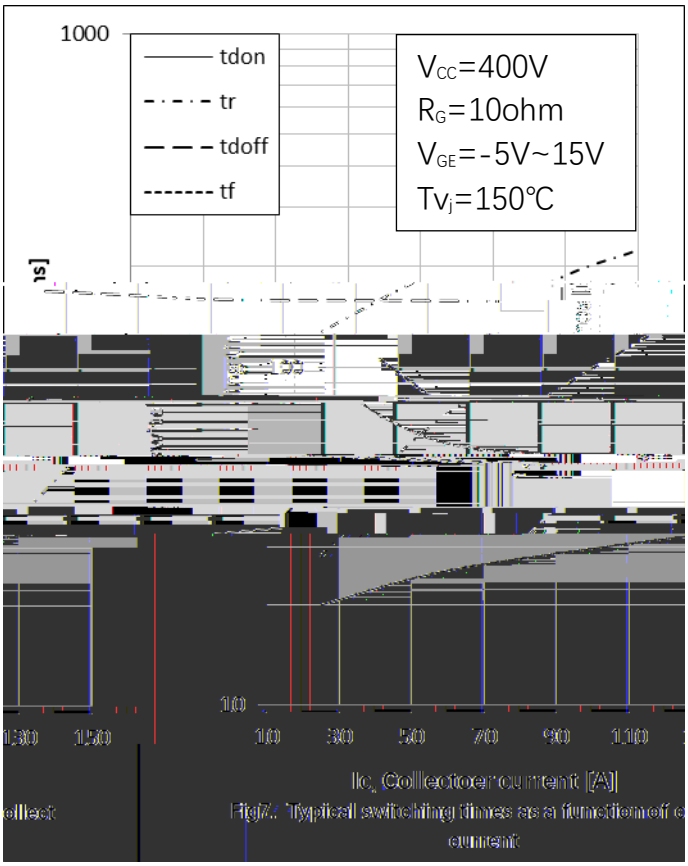


Fig5. Typical transfer characterist





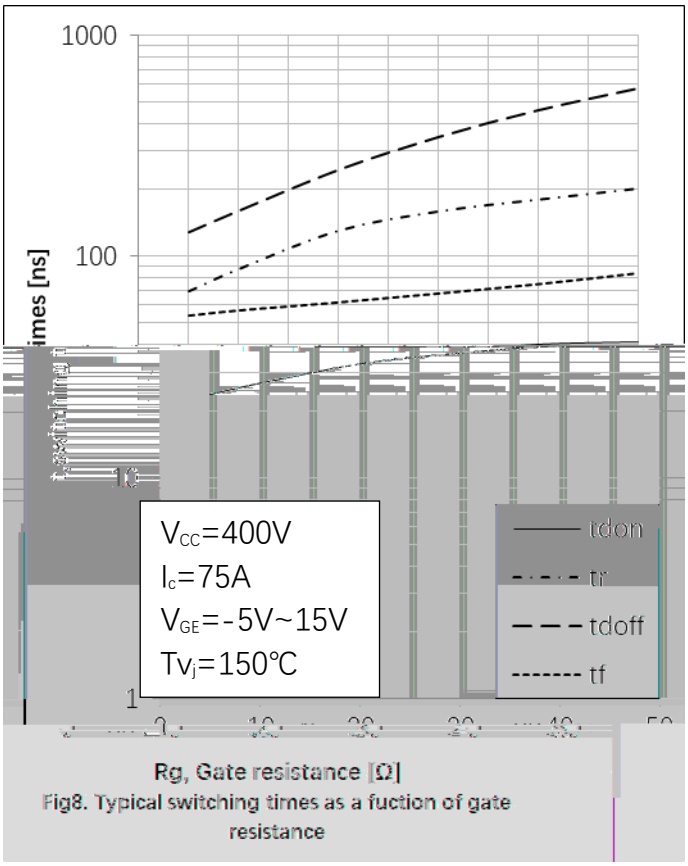


Fig8. Typical switching times as a fuction of gate resistance

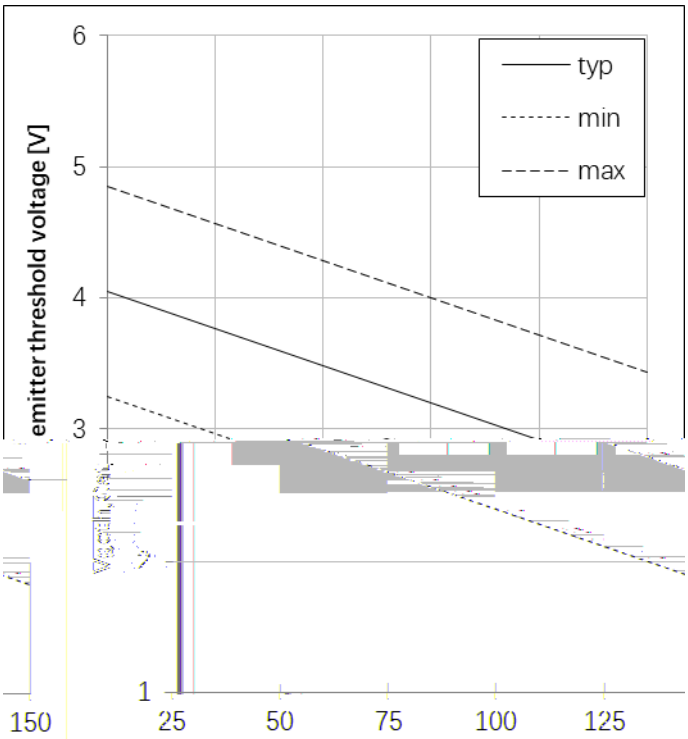


Fig9. Gate-emitter threshold voltage as a fuction of junction temperature(Ic=0.75mA)

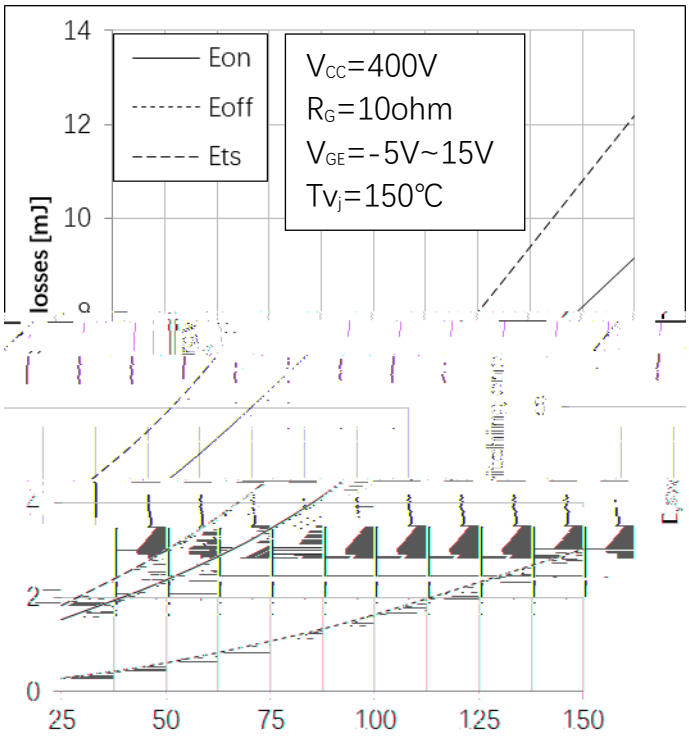


Fig10. Typical switching energy losses as a fuction of collect current

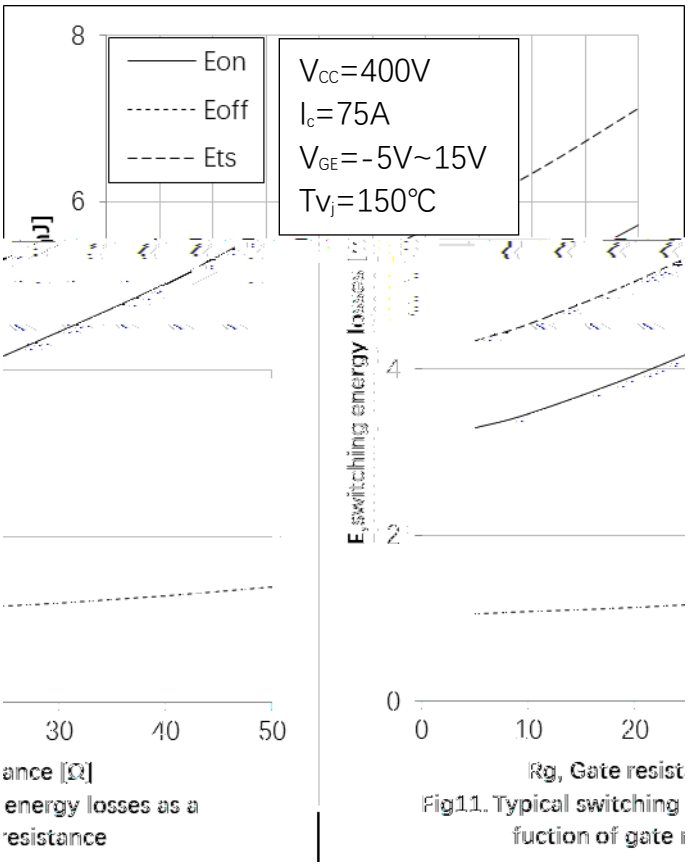


Fig11. Typical switching energy losses as a fuction of gate resistance

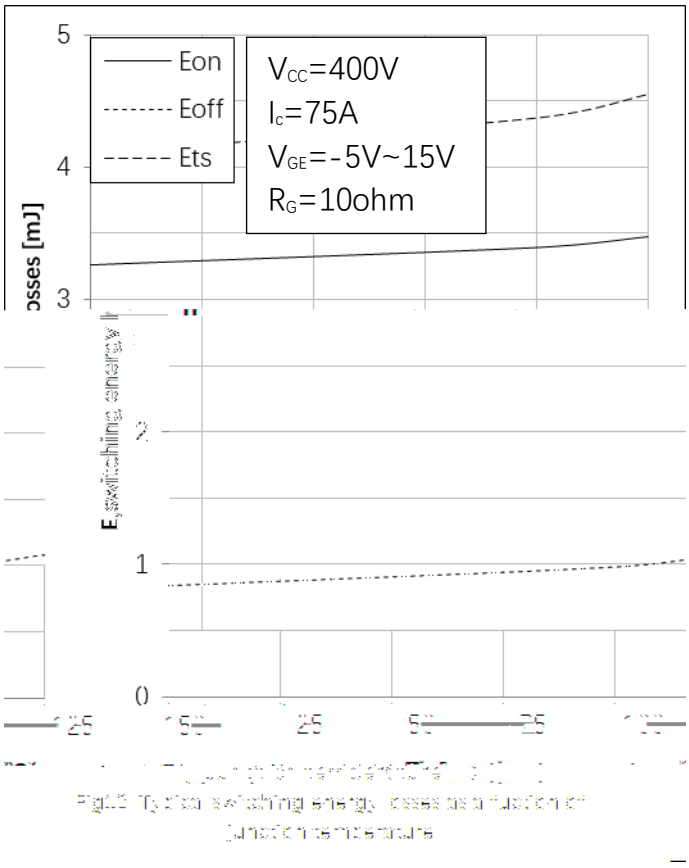


Fig12. Typical switching energy losses as a fuction of junction temperature

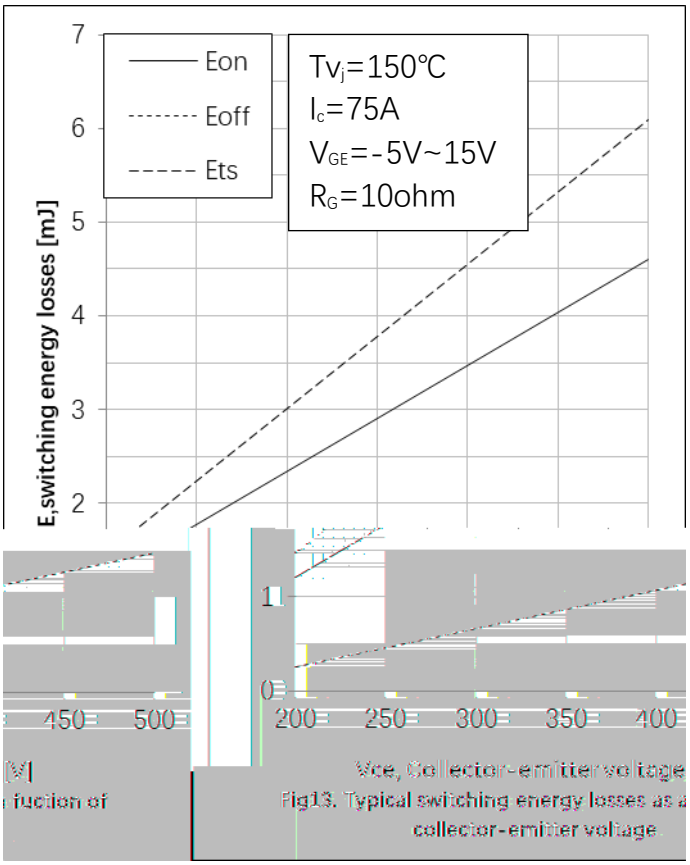


Fig13. Typical switching energy losses as a function of collector-emitter voltage

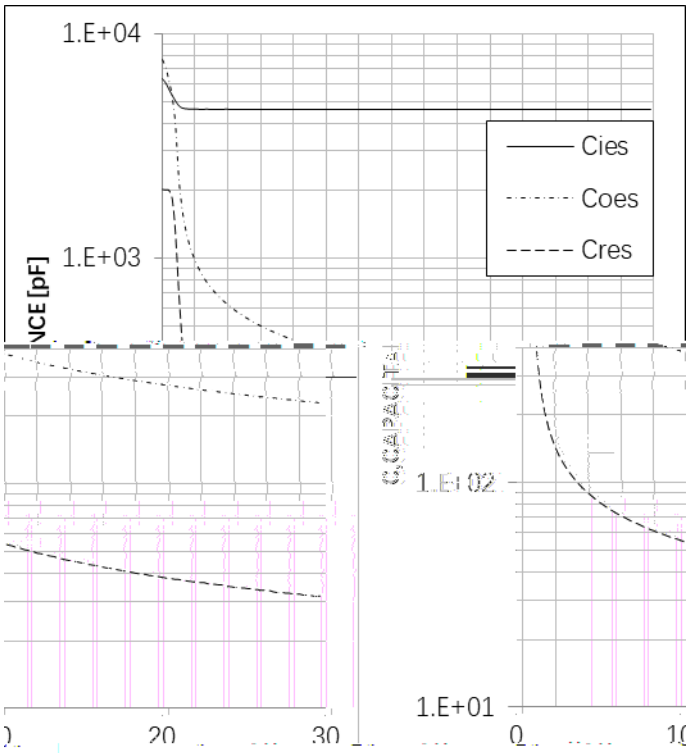


Fig14. Typical capacitance as a function of collector-emitter voltage

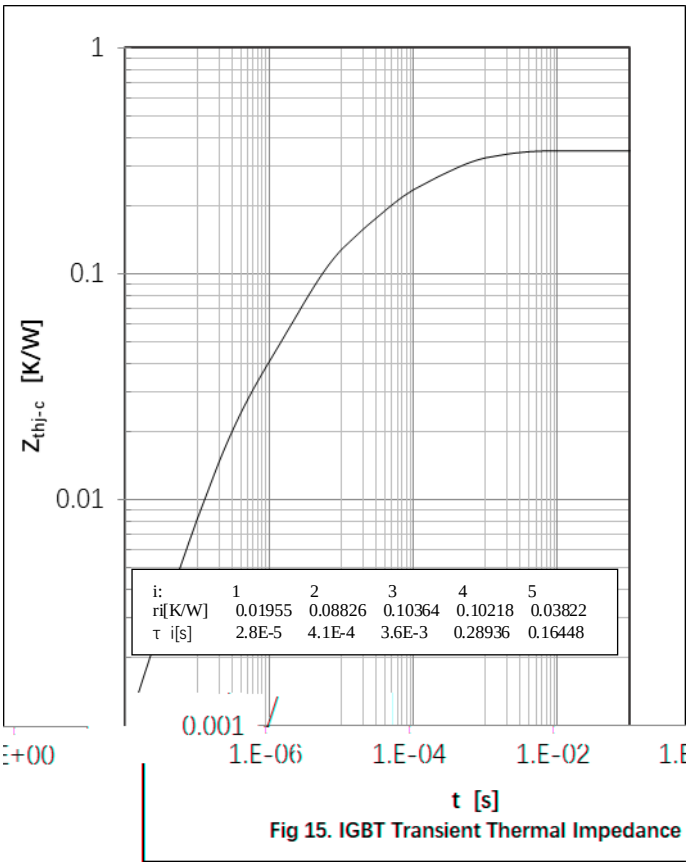
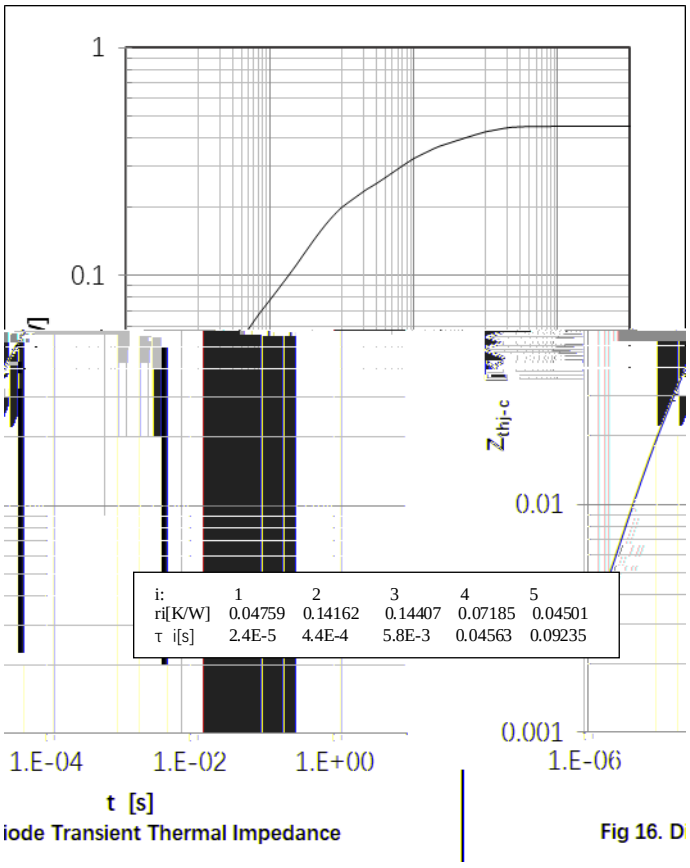


Fig 15. IGBT Transient Thermal Impedance



iode Transient Thermal Impedance

Fig 16. D

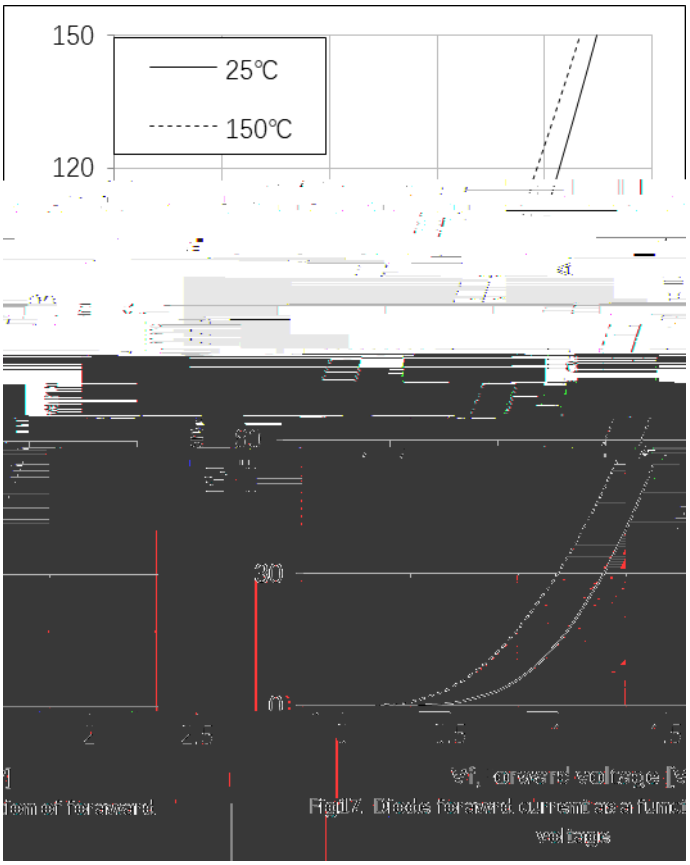
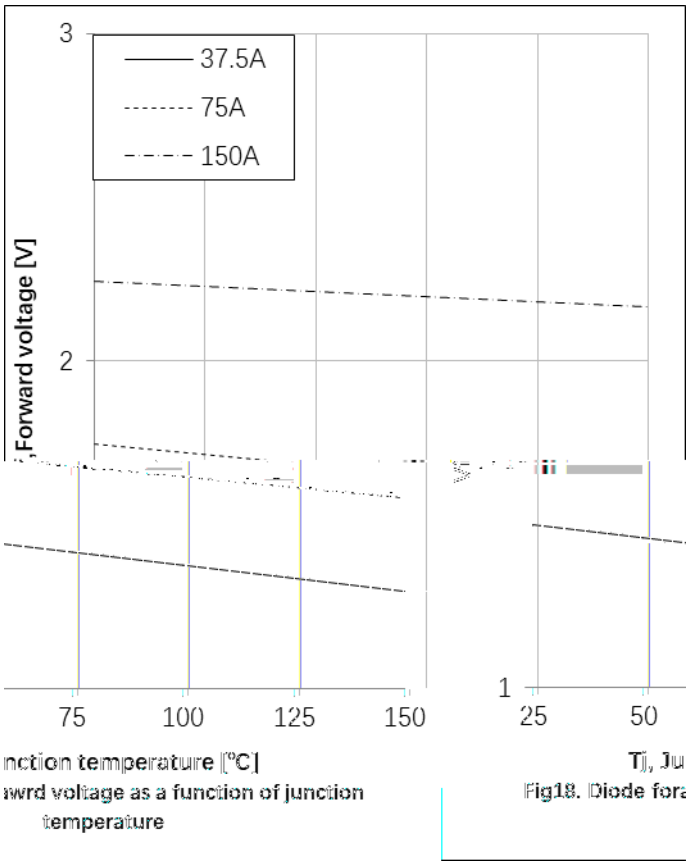


Fig17. Diodes forward current as a function of forward voltages



wrd voltage as a function of junction temperature

Fig18. Diode fora

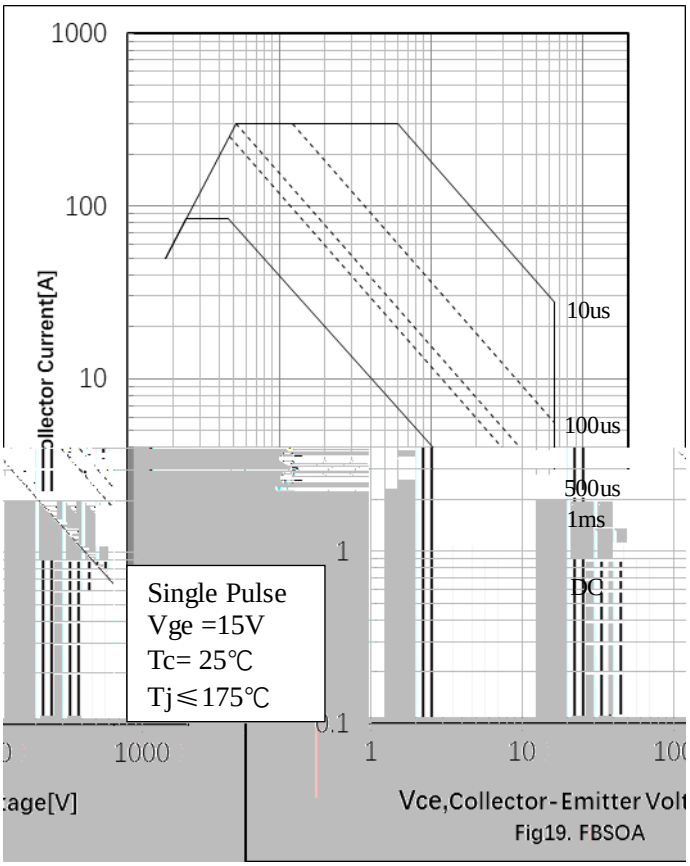
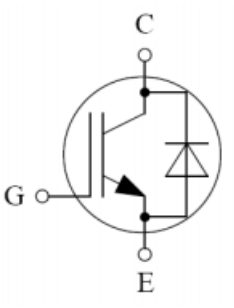


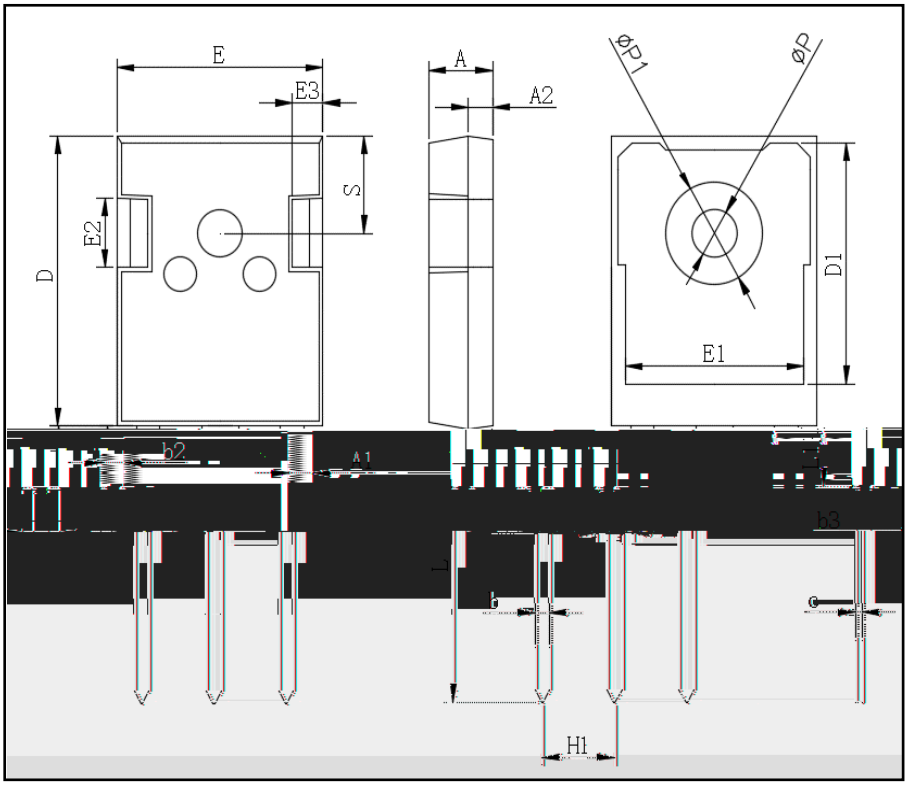
Fig19. FBSOA

C M





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
Φ P	3.40	3.80
Φ P1	-	7.30
S	6.15TYP	
H1	5.44TYP	
b3	2.80	3.20