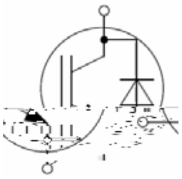
IGBT Discrete

V_{CE}	1200	V
I_C	25	A
VCE(SAT) IC=25A	1.85	V

Circuit



Applications

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Features

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■Maximum Ratings

Parameter	Symbol	Value	Unit

■Electrical Characteristics of the IGBT

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Static						

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Dynamic						

■Electrical Characteristics of the Diode

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Static						

■Switching Characteristic, Inductive Load

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Dynamic , at T_j= 25						
Dynamic , at T_j= 125						
Dynamic , at T_j= 150						

■Electrical Characteristics of the DIODE

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Dynamic , at T_j= 25						
Dynamic , at Tj= 125						
Dynamic , at Tj= 150						

■Thermal Resistance

Parameter	Symbol	Max. Value	Unit

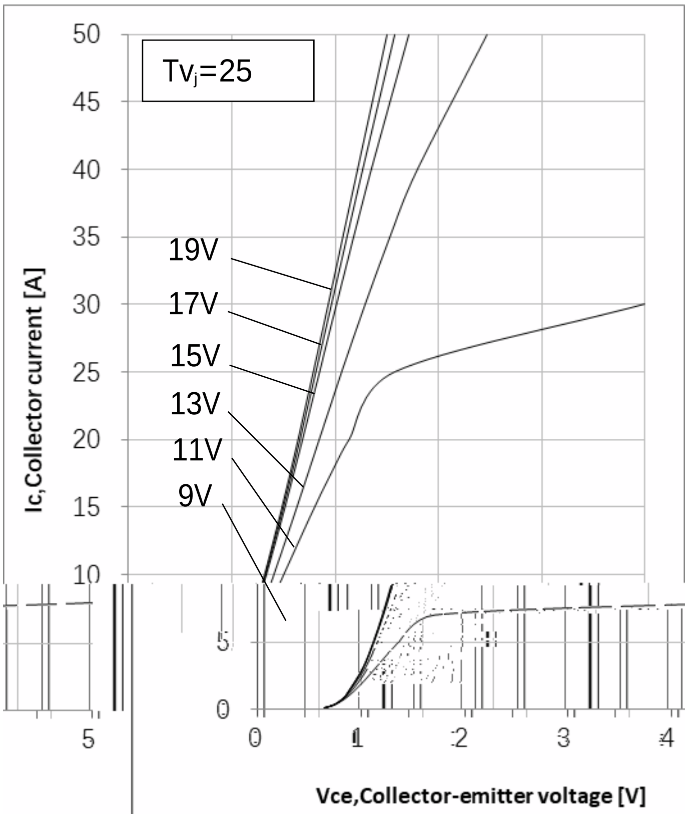


Fig1. Typical output characteristic

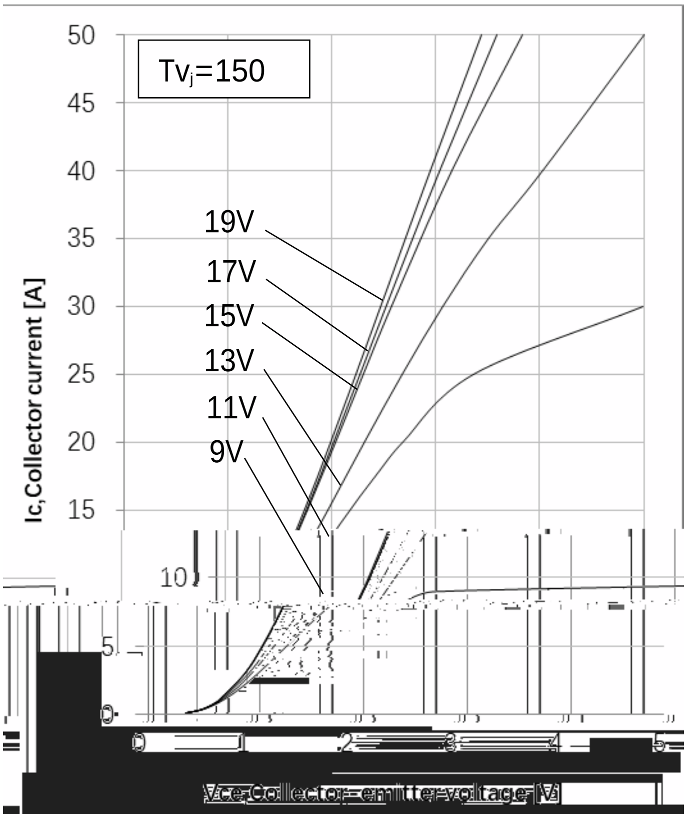


Fig2. Typical output characteristic

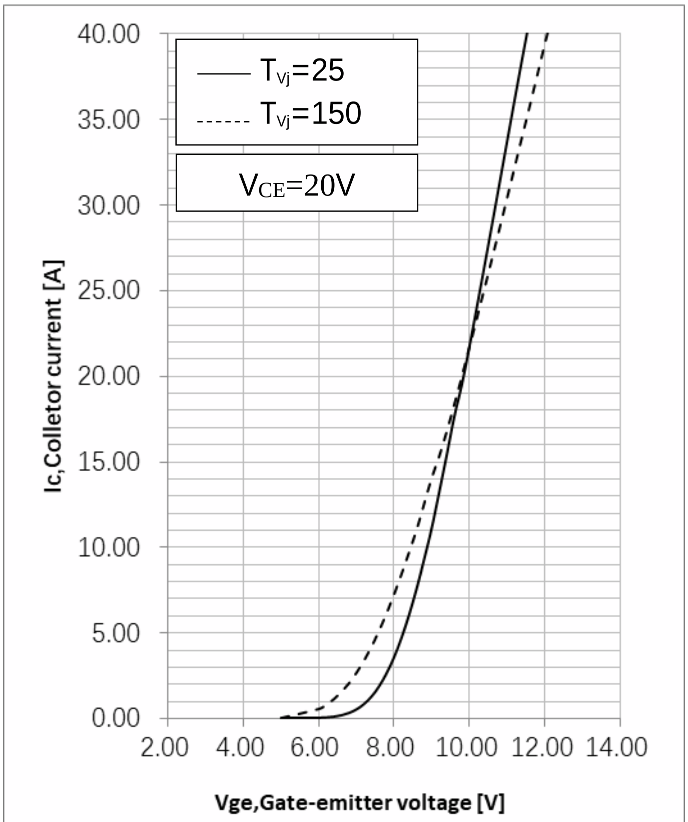


Fig3. Typical transfer characteristic

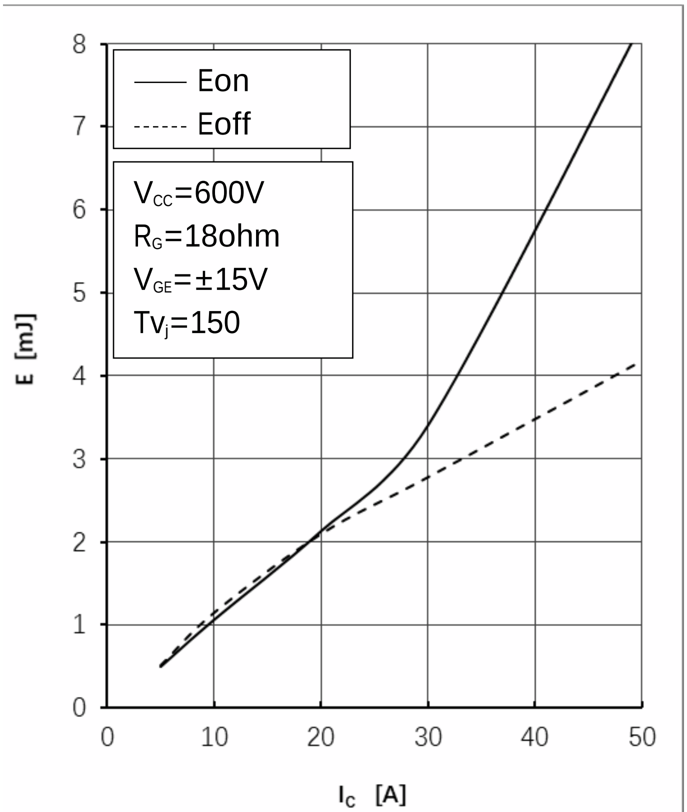


Fig4.IGBT Switching Loss vs.Ic

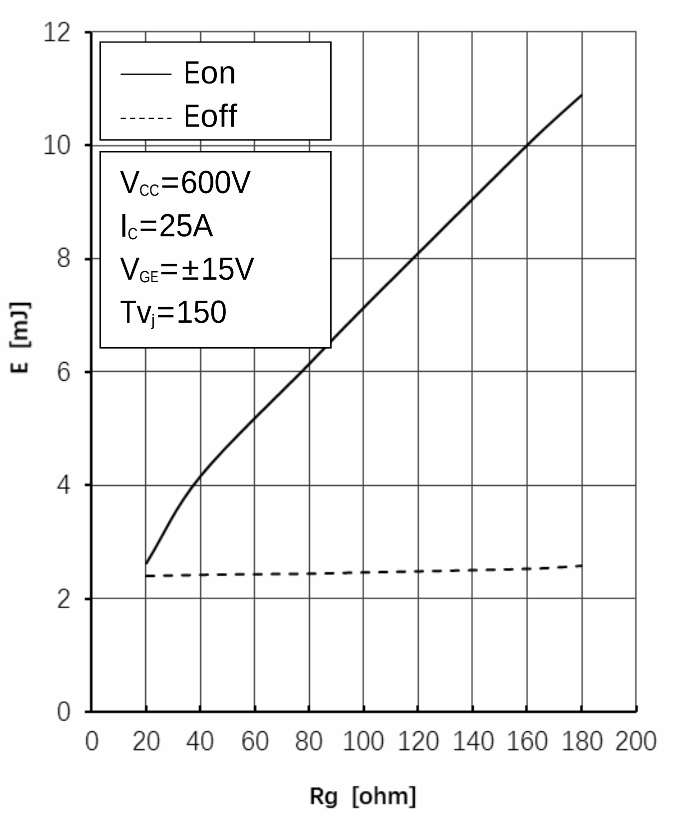


Fig5.IGBT Switching Loss vs.Rg

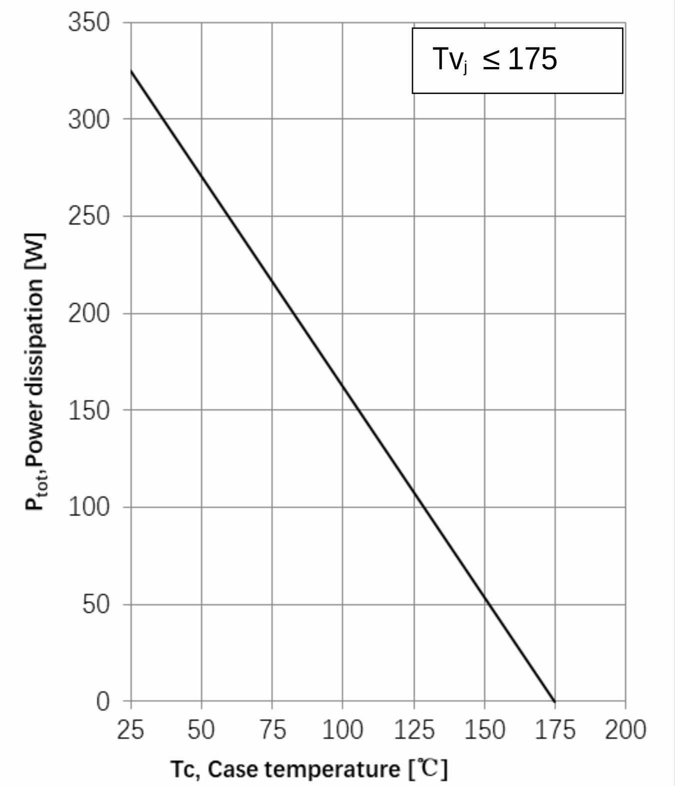
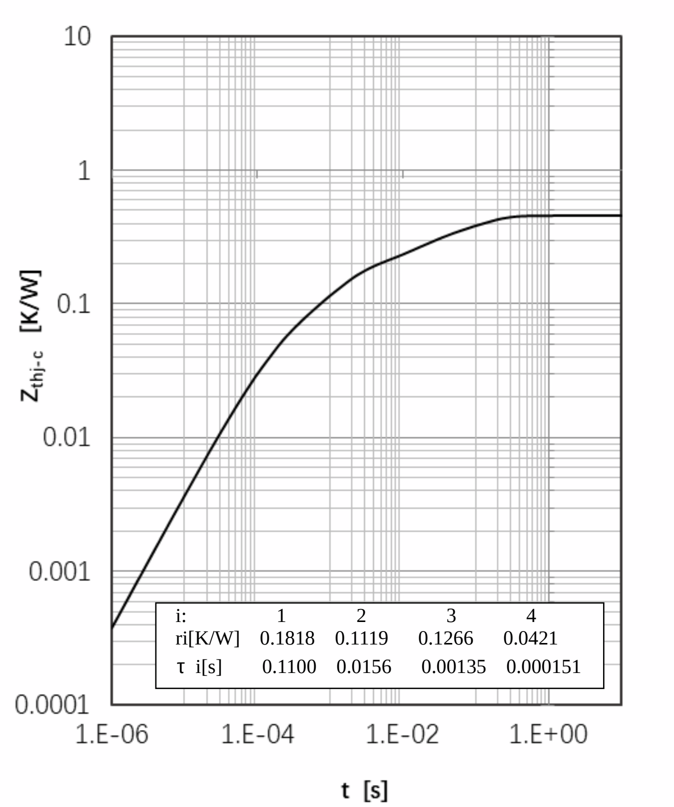


Fig6. Power dissipation as a function of case temperature (Tj⩽175℃)



i:	1	2	3	4
ri[K/W]	0.1818	0.1119	0.1266	0.0421
τ i[s]	0.1100	0.0156	0.00135	0.000151

Fig 7. IGBT Transient Thermal Impedance

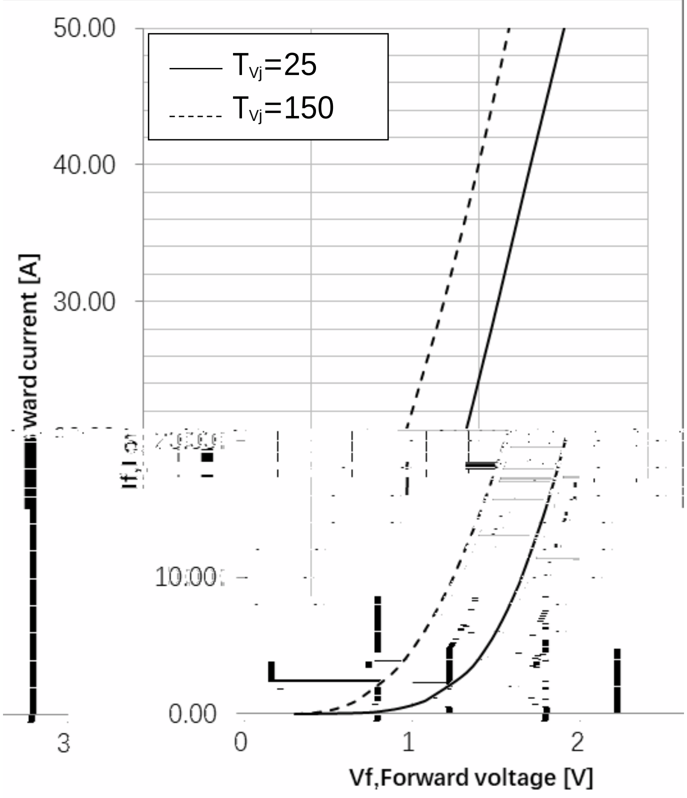
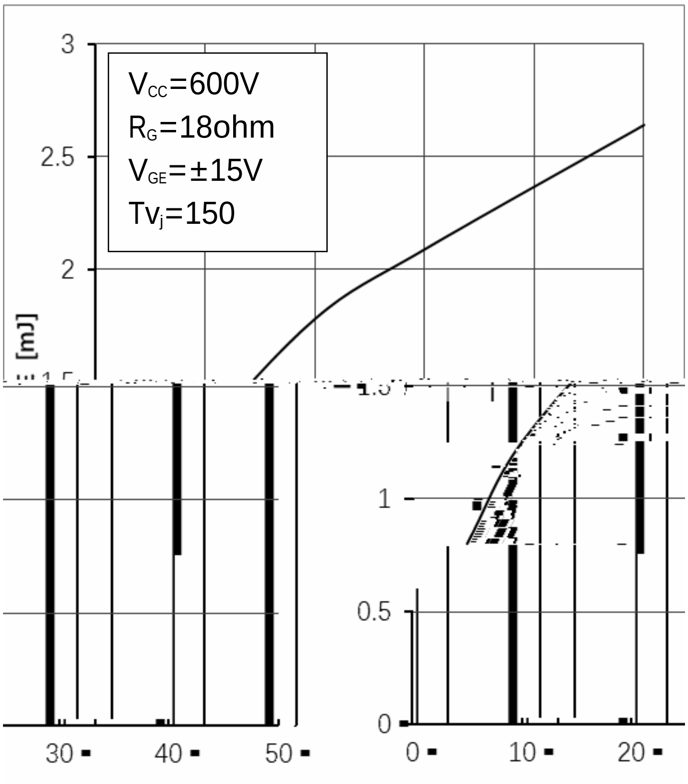


Fig8. diode forawrd current as a function of fora
voltage

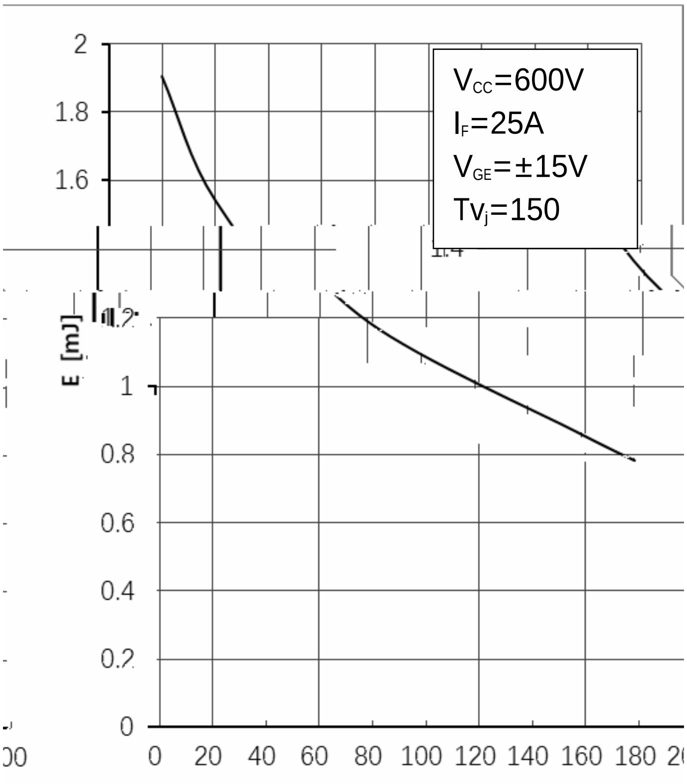


A]

IF [A

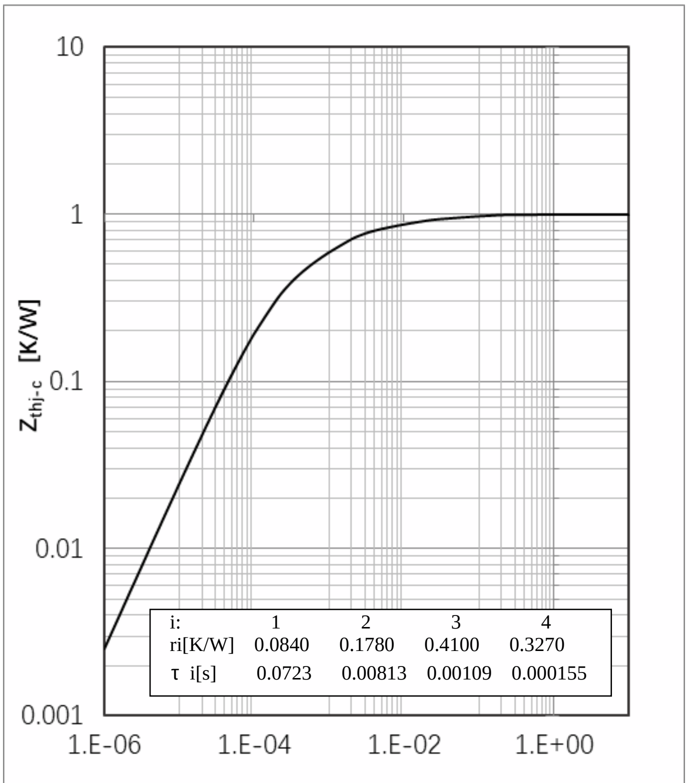
ıg Loss(Erec) vs.I_F

Fig9.Diode Switchin



R_G [ohm]

Fig10.Diode Switching Loss(Erec) vs.Rg



i:	1	2	3	4
ri[K/W]	0.0840	0.1780	0.4100	0.3270
τ i[s]	0.0723	0.00813	0.00109	0.000155

Fig11.Diode Transient Thermal Impedance

■Circuit Diagram

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■Package Outline Information

CASE: TO 247