



# DGW40N120CTH0D

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## Maximum Ratings

Parameter

Symbol



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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
<b>Static</b>						
Collector-Emitter Breakdown Voltage	$BV_{CES}$	$V_{GE}=0V, I_C$	1200		-	V
Gate Threshold Voltage	$V_{GE(th)}$	$V_{GE}=V_{CE}, I_C=1mA$	5.0	5.8	6.6	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$V_{GE}=15V, I_C=40A$ $T_j$				



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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
<b>Static</b>						
Diode Forward Voltage	$V_F$	$I_F = 40A$ $T_j = 25^\circ C$ , $T_j = 125^\circ C$ $T_j = 150^\circ C$		2.85 2.60 2.50	3.30	V

## Switching Characteristic, Inductive Load

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



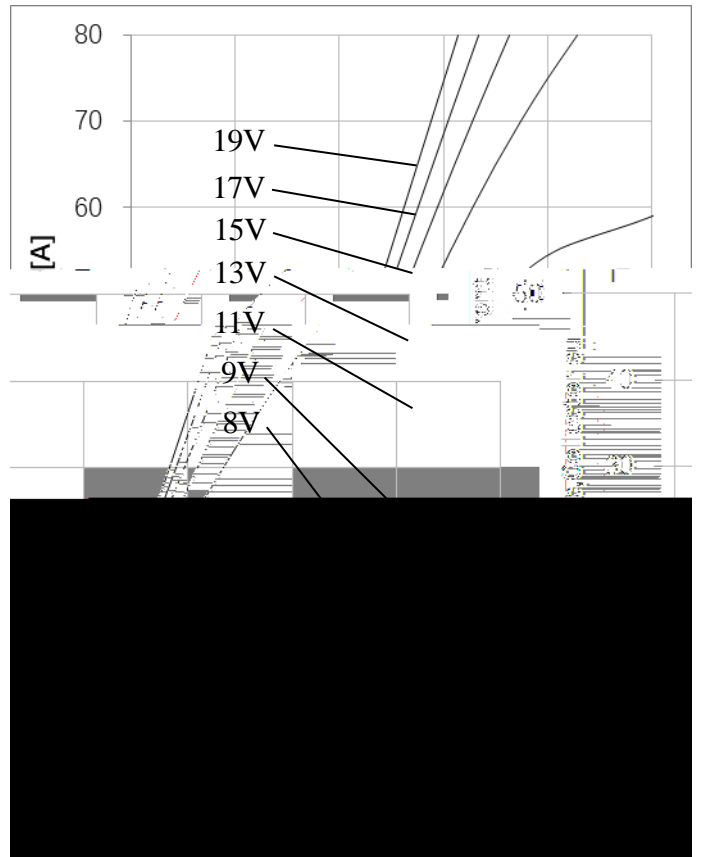
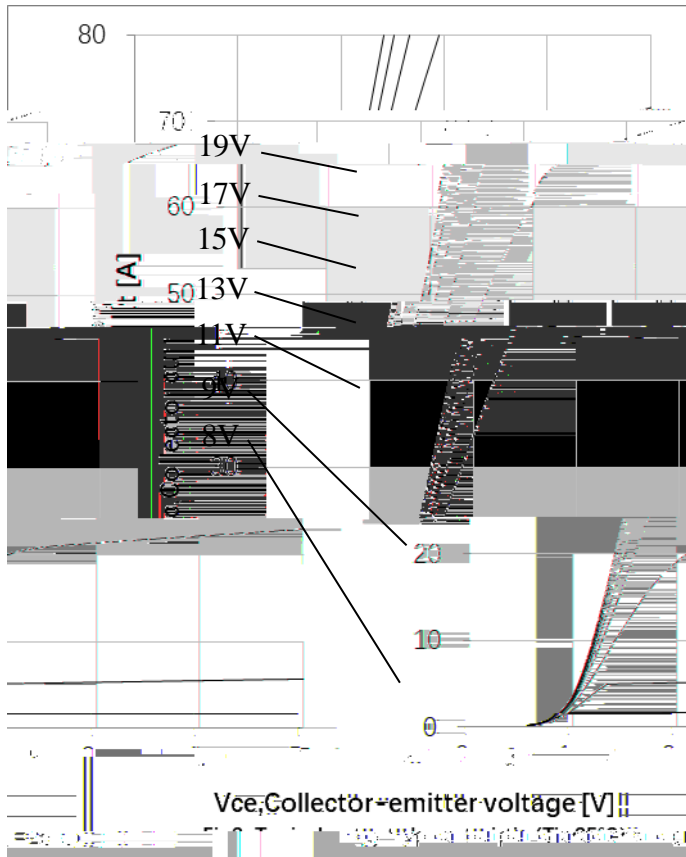
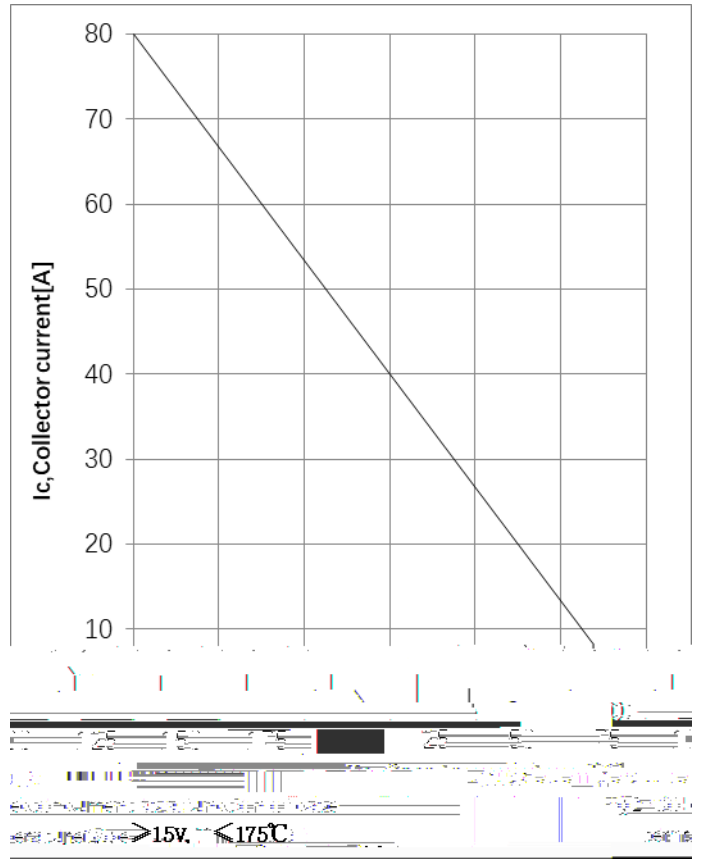
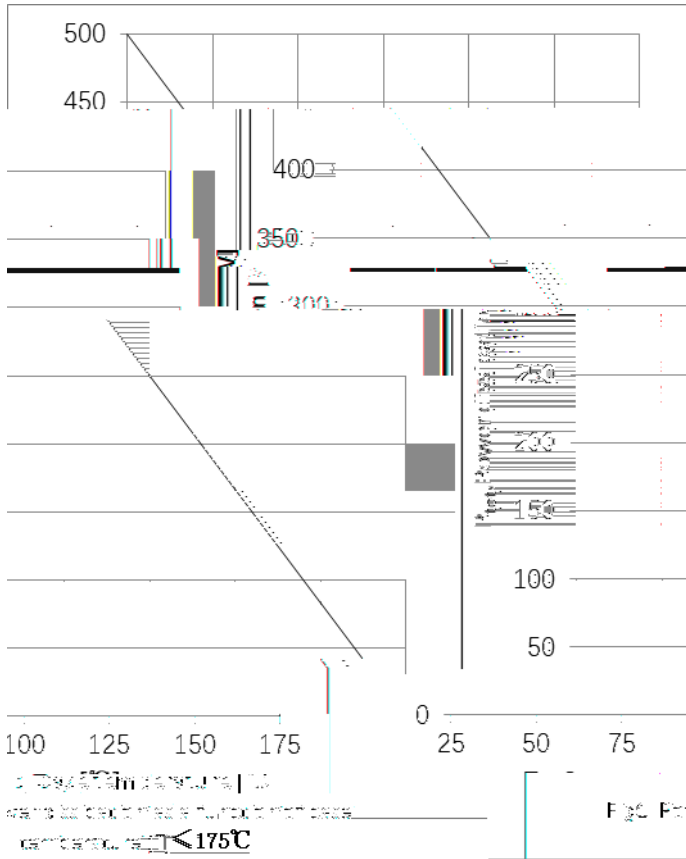
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## Electrical Characteristics of the DIODE

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
<b>Dynamic , at T<sub>j</sub>= 25</b>						
Reverse Recovery Current	I <sub>rr</sub>	I <sub>F</sub> =40A, V <sub>R</sub> =600V, di/dt= -510	-	14	-	A
Diode reverse recovery time	trr		-	305	-	ns
Reverse Recovery Charge	Q <sub>rr</sub>		-	1.09	-	uC
Reverse Recovery Energy	E <sub>rec</sub>		-	0.43	-	mJ
<b>Dynamic , at T<sub>j</sub>= 125</b>						
Reverse Recovery Current	I <sub>rr</sub>		-	15	-	A
Diode reverse recovery time	trr	I <sub>F</sub> =40A, V <sub>R</sub> =600V di/dt= -510	-	446	-	ns

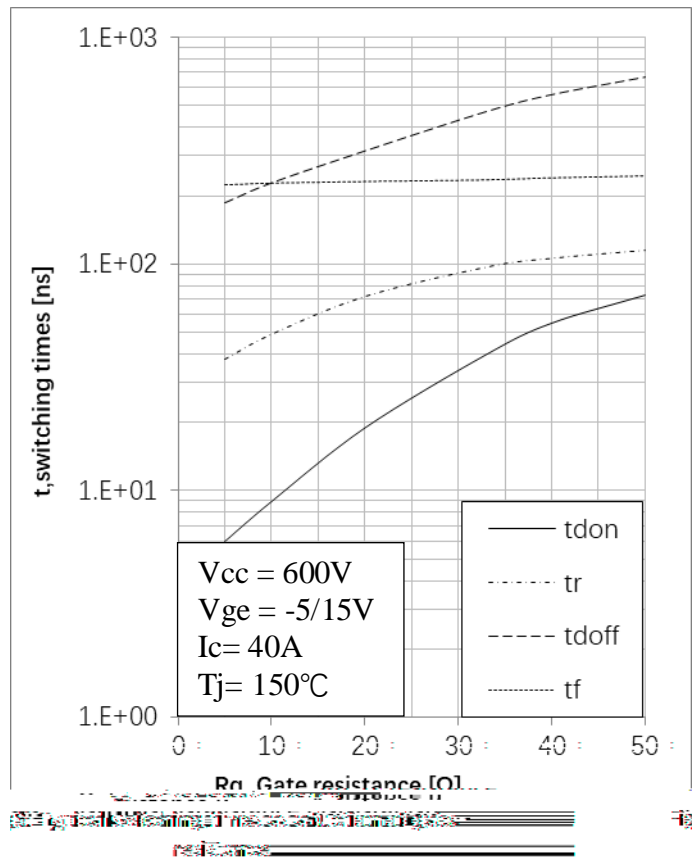
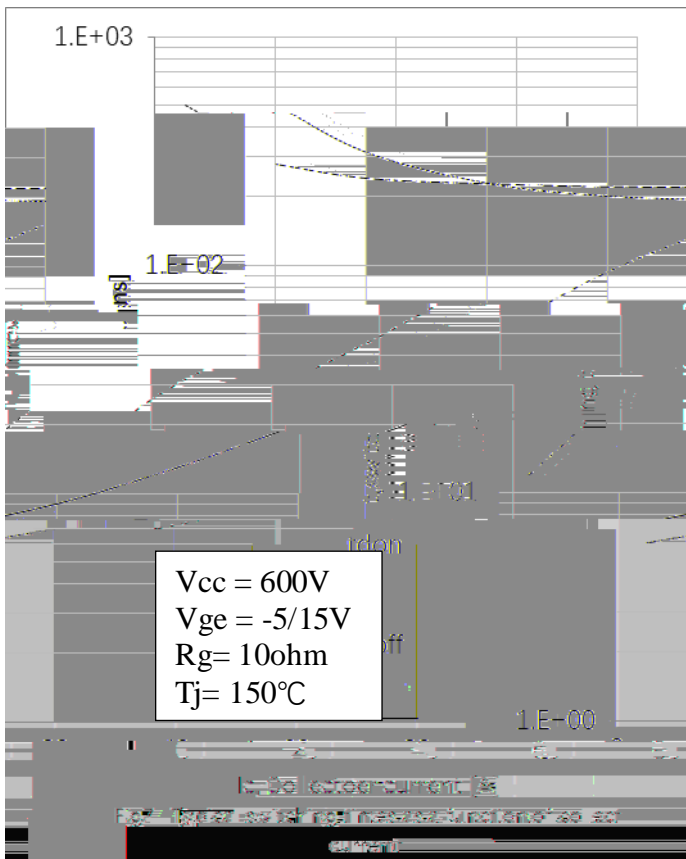
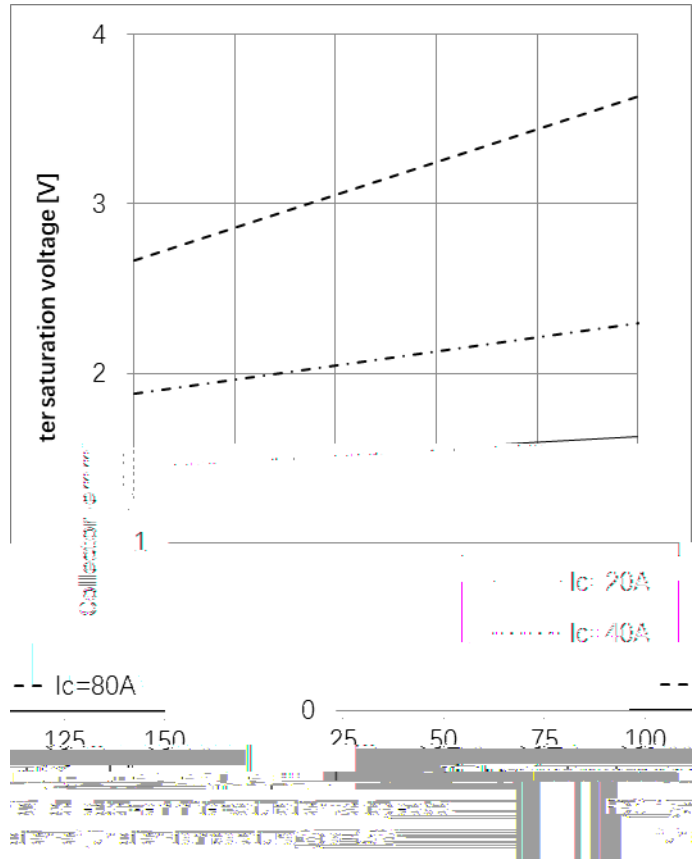
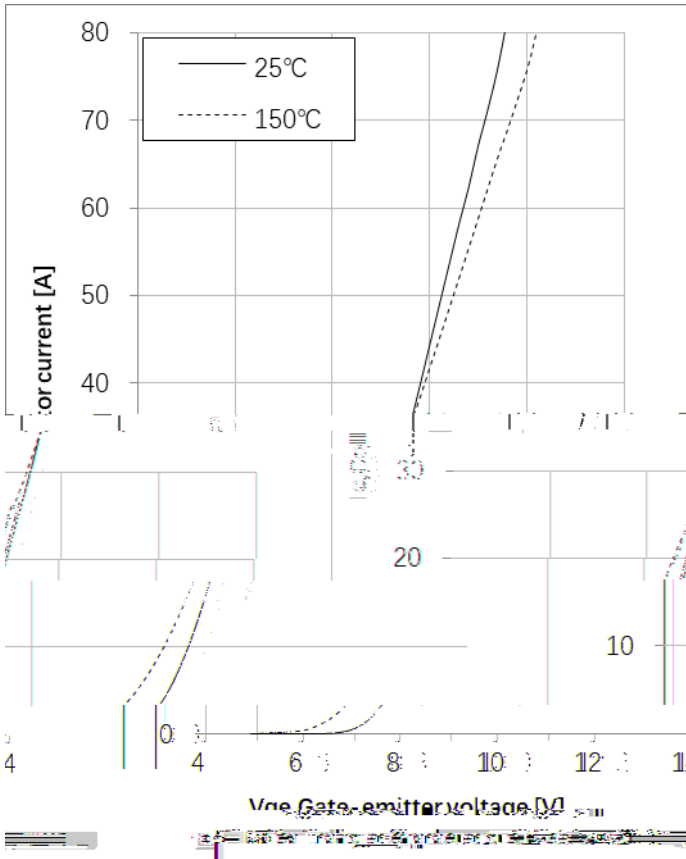


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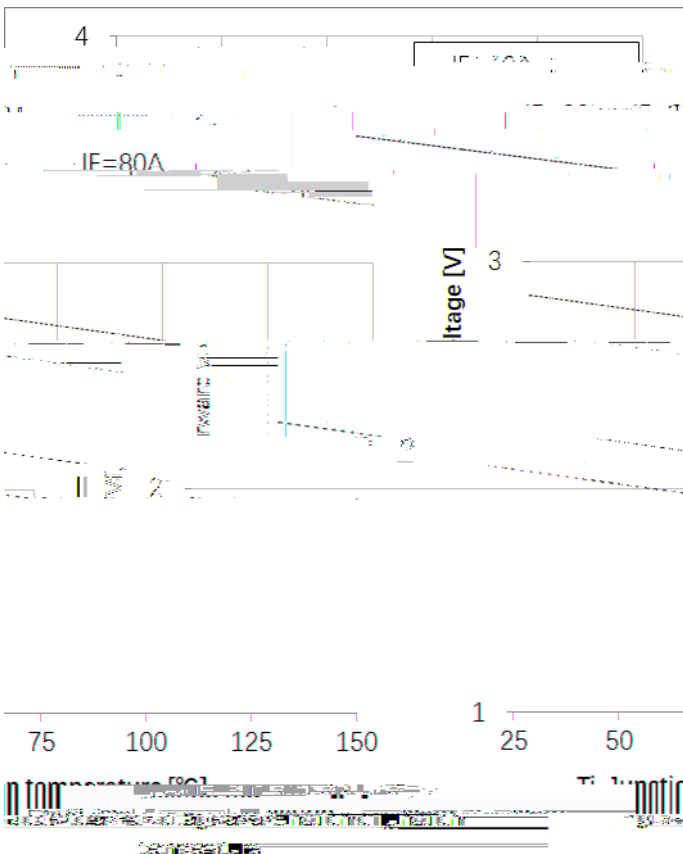
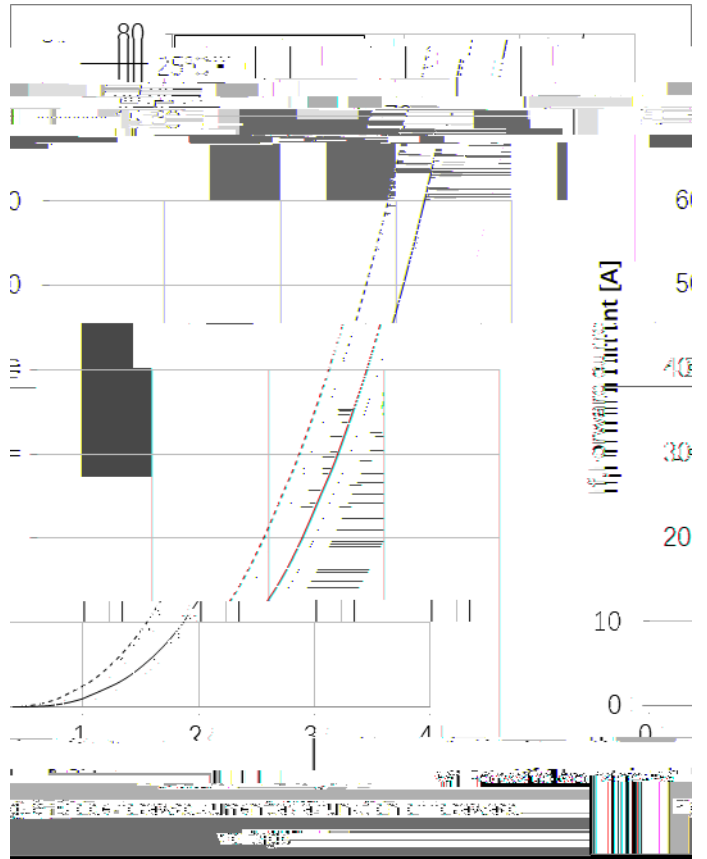
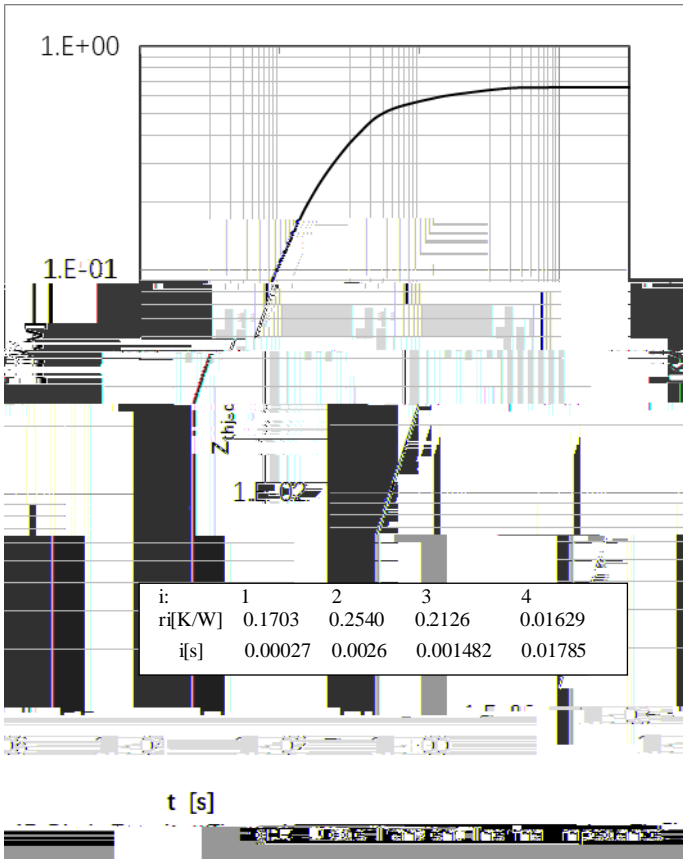


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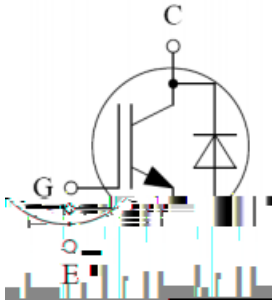
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# DGW40N120CTH0D

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