



# DGL50N120CTL0D



## Electrical Characteristics of the IGBT



# DGL50N120CTL0D

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.
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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> =50A, V <sub>R</sub> =600V, di/dt= -520	-	17	-	A
Diode reverse recovery time	trr		-	547	-	ns
Reverse Recovery Charge	Q <sub>rr</sub>		-	3.34	-	uC
Reverse Recovery Energy	E <sub>rec</sub>		-	1.55	-	mJ
<b>Dynamic , at T<sub>j</sub>= 125</b>						
Reverse Recovery Current	I <sub>rr</sub>	I <sub>F</sub> =50A, V <sub>R</sub> =600V, di/dt= -520	-	20	-	A
Diode reverse recovery time	trr		-	856	-	ns
Reverse Recovery Charge	Q <sub>rr</sub>		-	8.11	-	uC
Reverse Recovery Energy	E <sub>rec</sub>		-	2.88	-	mJ
<b>Dynamic , at T<sub>j</sub>= 150</b>						
Reverse Recovery Current	I <sub>rr</sub>	I <sub>F</sub> =50A, V <sub>R</sub> =600V, di/dt= -520	-	24	-	A
Diode reverse recovery time	trr		-	969	-	ns
Reverse Recovery Charge	Q <sub>rr</sub>		-	9.25	-	uC
Reverse Recovery Energy	E <sub>rec</sub>		-	3.92	-	mJ

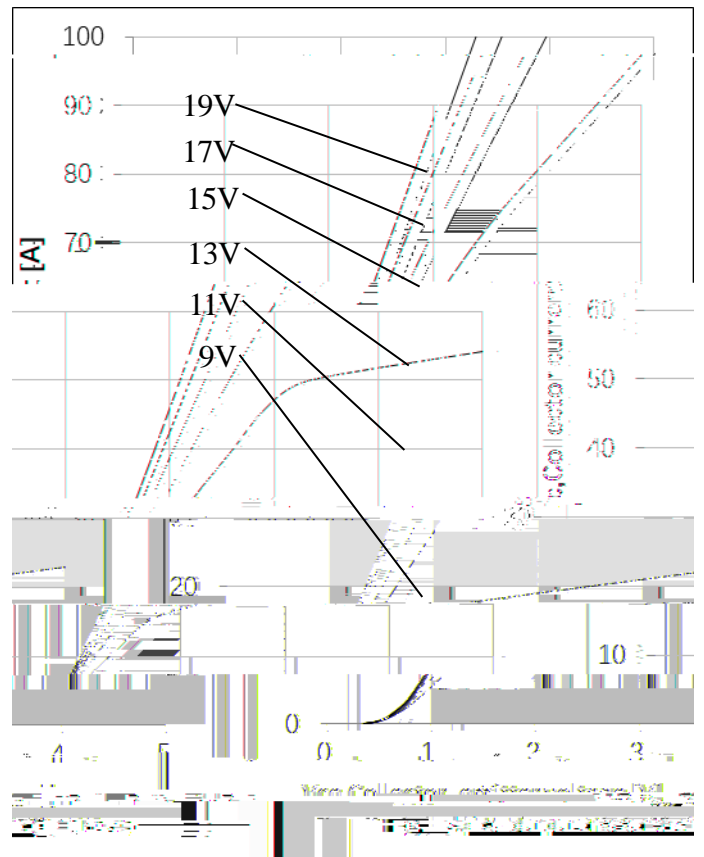
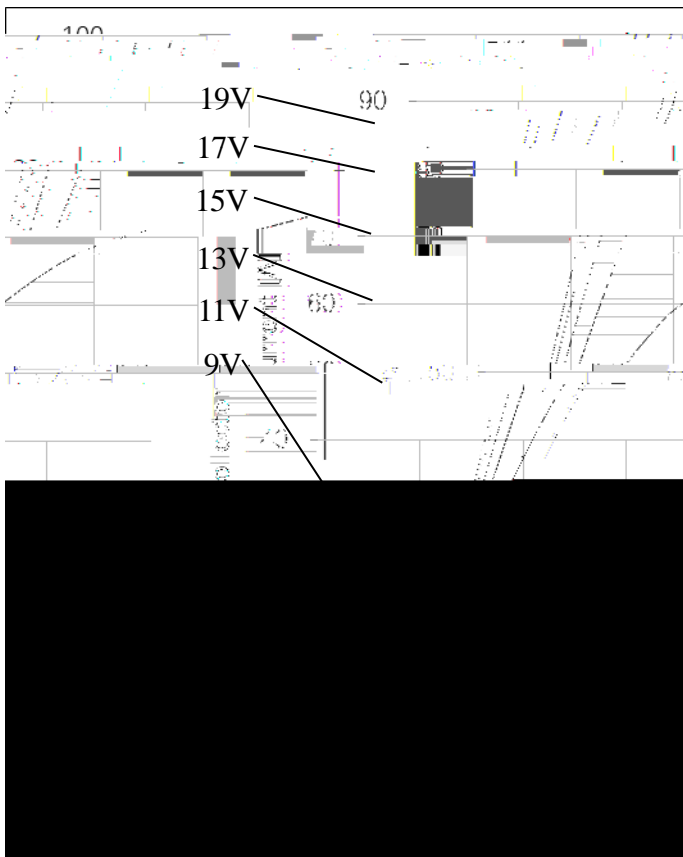
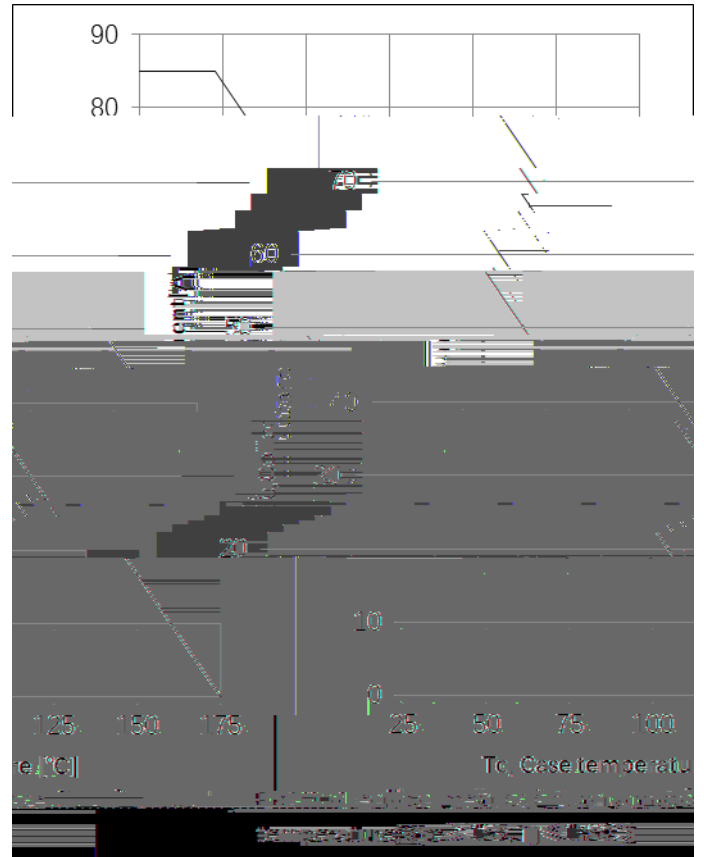
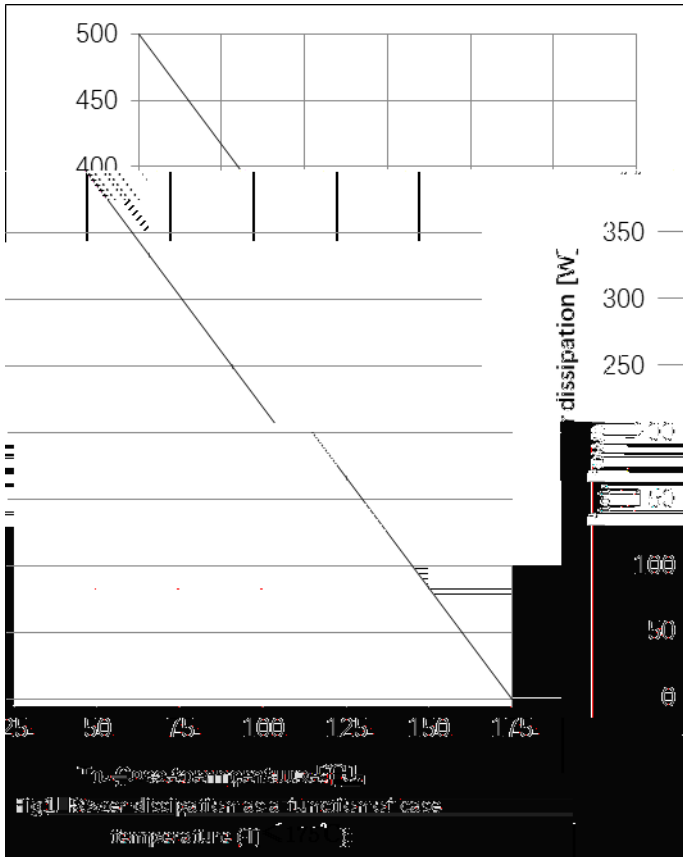
## Thermal Resistance

Parameter	Symbol	Max. Value	Unit
IGBT Thermal Resistance, Junction - Case	R (j-c)	0.30	K/W
Diode Thermal Resistance, Junction - Case	R (j-c)	0.65	K/W
Thermal Resistance, Junction - Ambient	R (j-a)	40	K/W



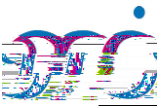
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