



# DGP20N65CTL0



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

Parameter	Symbol
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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	$V_F$	$I_F = 20A$ $T_j = 25^\circ C$ , $T_j = 125^\circ C$ $T_j = 150^\circ C$		2.00 1.80 1.70	2.50	V

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## Electrical Characteristics of the DIODE

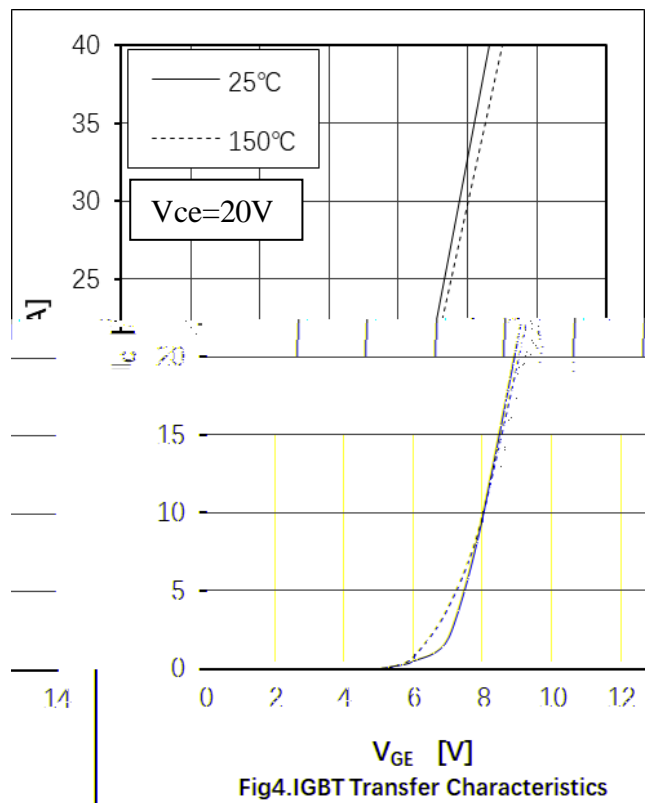
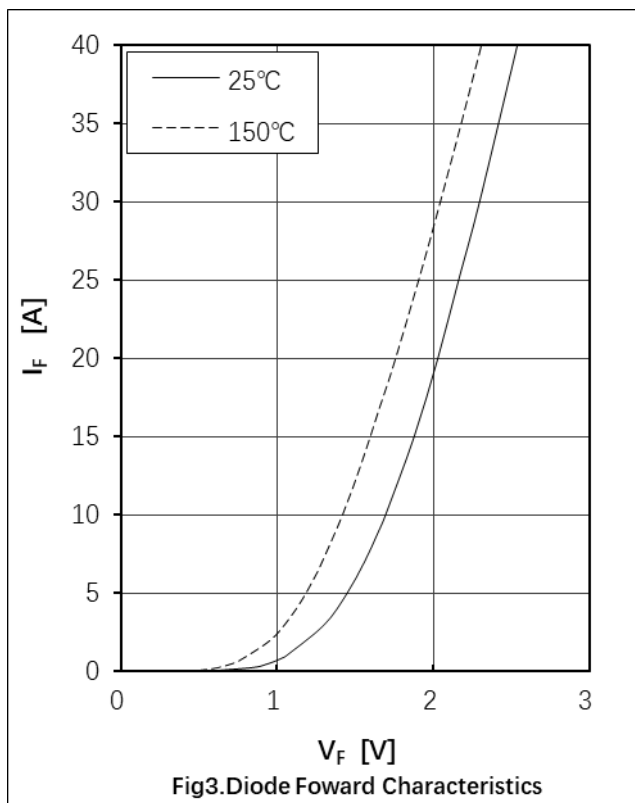
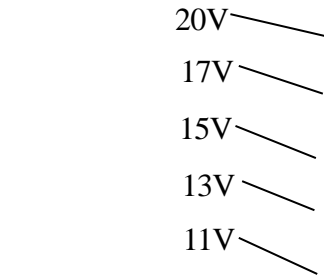
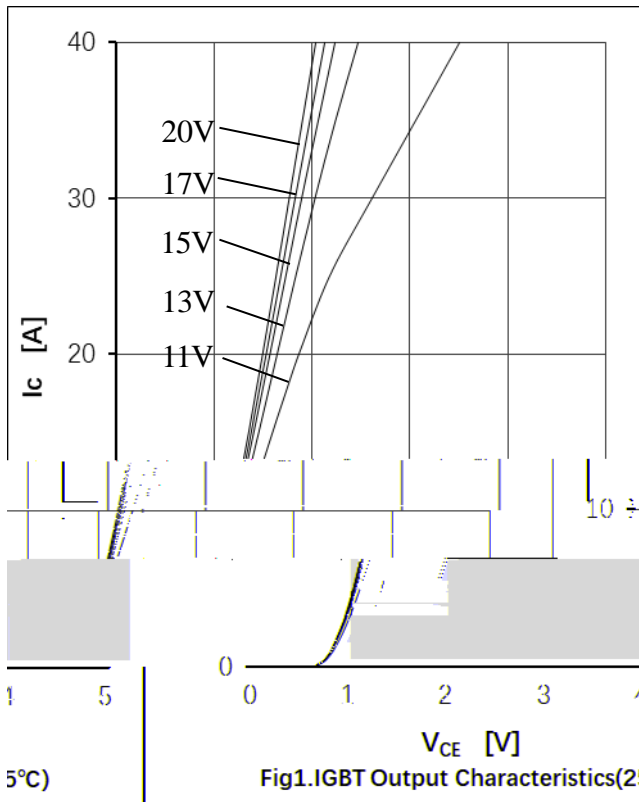
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
<b>Dynamic , at T<sub>j</sub>= 25</b>						
Reverse Recovery Current	I <sub>rr</sub>	I <sub>F</sub> =20A V <sub>R</sub> =300V, -di/dt= 360	-	6	-	A
Diode reverse recovery time	t <sub>rr</sub>		-	200	-	ns
Reverse Recovery Charge	Q <sub>rr</sub>		-	0.25	-	uC
Reverse Recovery Energy	E <sub>rec</sub>		-	0.07	-	mJ
<b>Dynamic , at T<sub>j</sub>= 125</b>						
Reverse Recovery Current	I <sub>rr</sub>	I <sub>F</sub> =20A V <sub>R</sub> =300V, -di/dt= 360	-	8	-	A
Diode reverse recovery time	t <sub>rr</sub>		-	218	-	ns
Reverse Recovery Charge	Q <sub>rr</sub>		-	0.59	-	uC
Reverse Recovery Energy	E <sub>rec</sub>		-	0.13	-	mJ
<b>Dynamic , at T<sub>j</sub>= 150</b>						
Reverse Recovery Current	I <sub>rr</sub>	I <sub>F</sub> =20A V <sub>R</sub> =300V, -di/dt= 360	-	9	-	A
Diode reverse recovery time	t <sub>rr</sub>		-	227	-	ns
Reverse Recovery Charge	Q <sub>rr</sub>		-	0.78	-	uC
Reverse Recovery Energy	E <sub>rec</sub>		-	0.16	-	mJ

## Thermal Resistance

Parameter	Symbol	Max. Value	Unit
IGBT Thermal Resistance, Junction - Case	R <sub>th(j-c)</sub>	1.25	K/W
Diode Thermal Resistance, Junction - Case	R <sub>th(j-c)</sub>	1.5	K/W
Thermal Resistance, Junction - Ambient	R <sub>th(j-a)</sub>	60	K/W

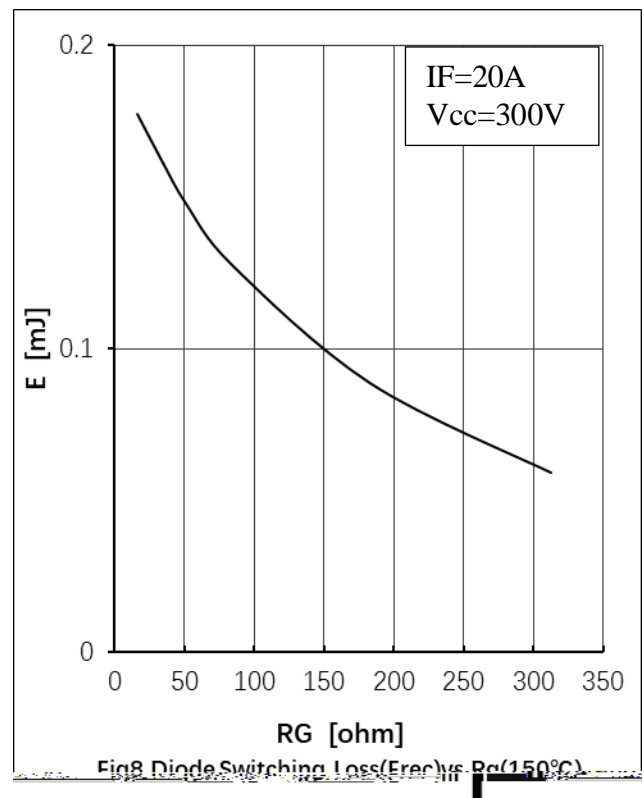
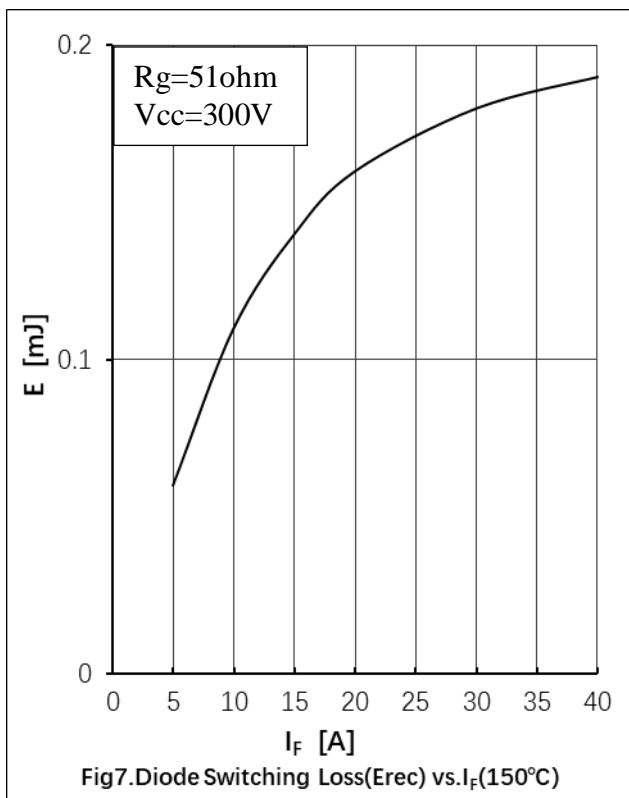
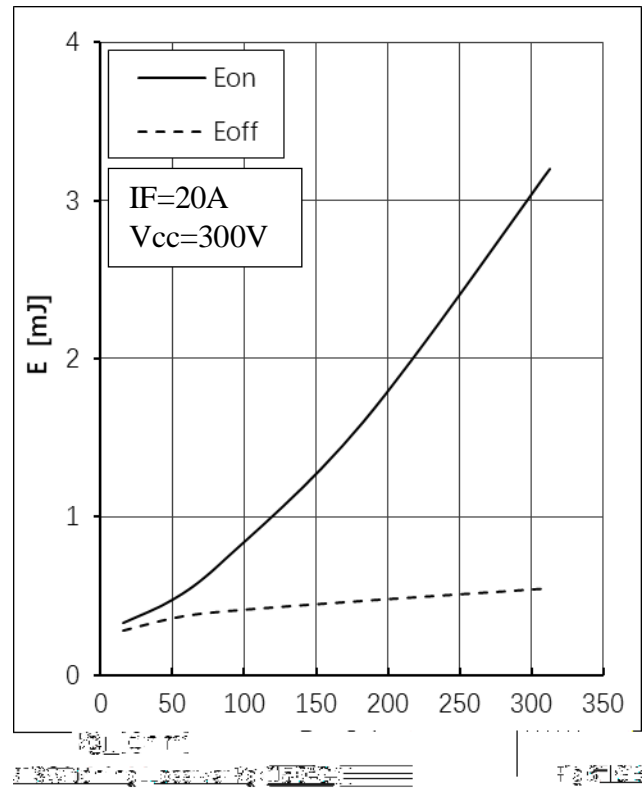
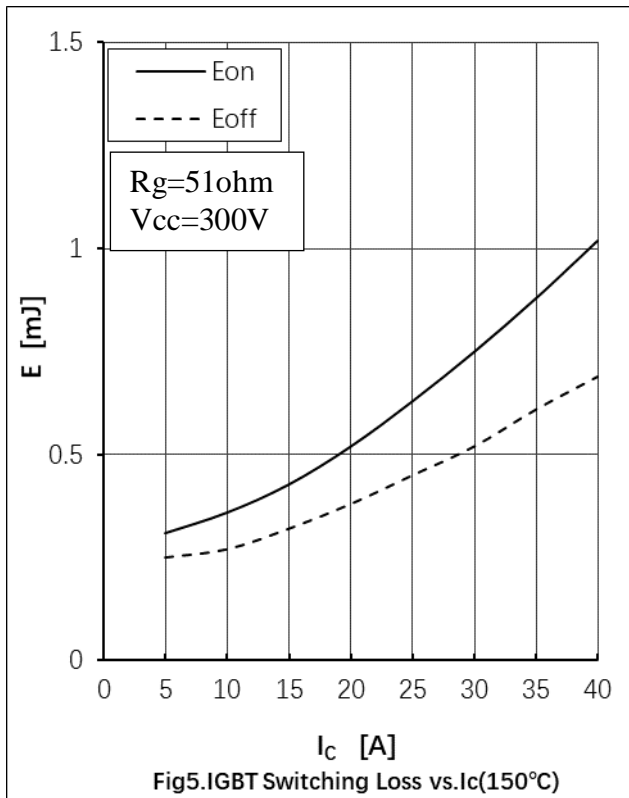


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