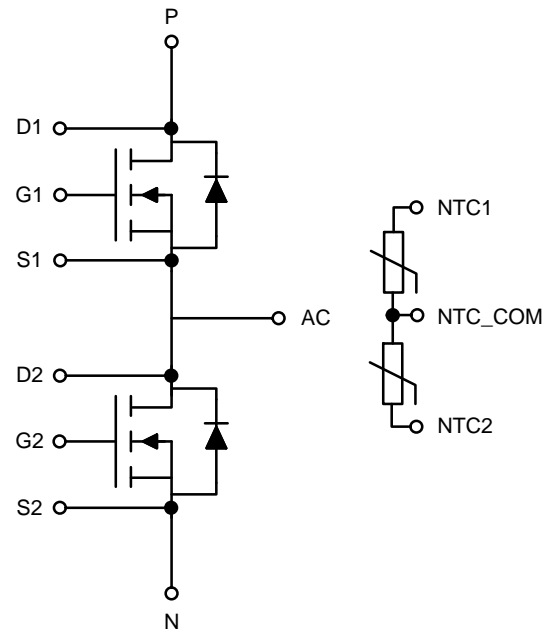


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1	N	Negative Power Terminal
2	P	Positive Power Terminal
3	D1	High Side MOSFET (Q1) Drain Sense
4	N/C	No Connection
5	S1	High Side MOSFET (Q1) Source
6	G1	High Side MOSFET (Q1) Gate
7	N/C	No Connection
8	N/C	No Connection
9	AC	Phase Output
10	NTC1	NTC 1
11	S2	Low Side MOSFET (Q2) Source
12	G2	Low Side MOSFET (Q2) Gate
13	NTC2	NTC 2
14	NTC_COM	NTC common
15	D2	Low Side MOSFET (Q2) Drain Sense



( $T_{vj} = 25^{\circ}\text{C}$ , Unless Otherwise Specified)

$R_{DS(ON)}$	Drain-to-Source On Resistance (Terminal)	$V_{GS} = 20\text{V}$ , $I_D = 400\text{A}$	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 175^{\circ}\text{C}$	-	2.6 4.6	-	m $\Omega$
$V_{GS(TH)}$	Gate Threshold Voltage	$V_{GS} = V_{DS}$ , $I_D = 150\text{mA}$		2.1	3.2	-	V
$g_{fs}$	Forward Transconductance	$V_{DS} = 10\text{V}$ , $I_D = 400\text{A}$		-	170	-	S
$Q_G$	Total Gate Charge	$V_{GS} = -5/+20\text{V}$ , $V_{DS} = 800\text{V}$ , $I_D = 400\text{A}$		-	1.75	-	C
$R_{g,int}$	Internal Gate Resistance			-	2.1	-	$\Omega$
$C_{iss}$	Input Capacitance	$V_{DS} = 800\text{V}$ , $V_{GS} = 0\text{V}$ , $f = 100\text{kHz}$		-	31.7	-	nF
$C_{oss}$	Output Capacitance			-	2.2	-	nF
$C_{rss}$	Reverse Transfer Capacitance			-	0.22	-	nF
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{GS} = 0\text{V}$ , $V_{DS} = 1200\text{V}$	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 175^{\circ}\text{C}$	-	- 13.1	250 -	A
$I_{GSS}$	Gate-Source Leakage Current	$V_{GS} = 20/-5\text{V}$ , $V_{DS} = 0\text{V}$				$\pm 700$	nA
$T_{d,on}$	Turn On Delay, Inductive Load	$I_{DS} = 400\text{A}$ , $V_{DS} = 800\text{V}$ , $V_{GS} = +20/-5\text{V}$ , $R_{g,on} = 3\Omega$	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 175^{\circ}\text{C}$	-	125 115	-	ns
$T_r$	Rise Time, Inductive Load	$I_{DS} = 400\text{A}$ , $V_{DS} = 800\text{V}$ , $V_{GS} = +20/-5\text{V}$ , $R_{g,on} = 3\Omega$	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 175^{\circ}\text{C}$	-	59 54	-	ns
$T_{d,off}$	Turn Off Delay, Inductive Load	$I_{DS} = 400\text{A}$ , $V_{DS} = 800\text{V}$ , $V_{GS} = +20/-5\text{V}$ , $R_{g,off} = 1\Omega$	$T_{vj} = 25^{\circ}\text{C}$ , $T_{vj} = 175^{\circ}\text{C}$	-	220 228	-	ns
$T_f$	Fall Time, Inductive Load	$I_{DS} = 400\text{A}$ , $V_{DS} = 800\text{V}$ , $V_{GS} = +20/-5\text{V}$ , $R_{g,off} = 1\Omega$	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 175^{\circ}\text{C}$	-	51 61	-	ns
$E_{ON}$	Turn-On Switching Loss (including diode reverse recovery loss)	$I_{DS} = 400\text{A}$ , $V_{DS} = 800\text{V}$ , $V_{GS} = +20/-5\text{V}$ , $L_s = 17\text{nH}$ , $R_{g,on} = 3\Omega$	$di/dt = 8.4\text{A/ns}$ , $T_{vj} = 25^{\circ}\text{C}$ $di/dt = 9.7\text{A/ns}$ , $T_{vj} = 175^{\circ}\text{C}$	-	26 28	-	mJ
$E_{OFF}$	Turn-Off Switching Loss	$I_{DS} = 400\text{A}$ , $V_{DS} = 800\text{V}$ , $V_{GS} = +20/-5\text{V}$ , $L_s = 17\text{nH}$ , $R_{g,off} = 1\Omega$	$dv/dt = 19.8\text{V/ns}$ , $T_{vj} = 25^{\circ}\text{C}$ $dv/dt = 16.8\text{V/ns}$ , $T_{vj} = 175^{\circ}\text{C}$	-	14 17	-	mJ
$E_{sc}$	Short Circuit Energy Withstand	$V_{GS} = 20\text{V}$ , $V_{DS} = 800\text{V}$	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 175^{\circ}\text{C}$	-	12 11	-	J

( $T_{vj} = 25^{\circ}\text{C}$ , Unless Otherwise Specified)

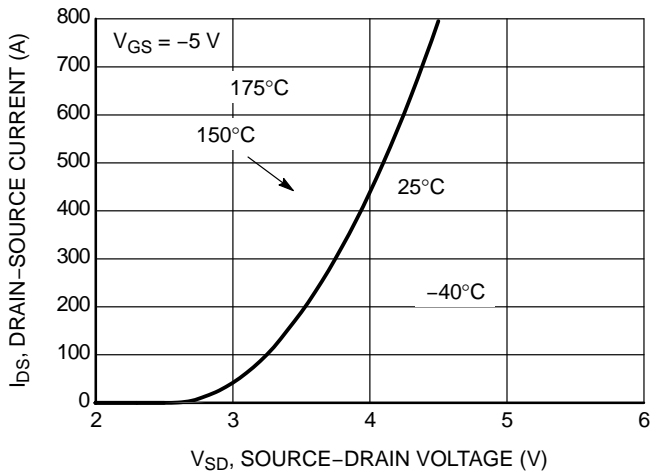
$V_{SD}$	Diode Forward Voltage (Terminal)	$V_{GS} = -5\text{ V}$ , $I_{SD} = 400\text{ A}$		$T_{vj} = 25^{\circ}\text{C}$	-	3.8	-	V
				$T_{vj} = 175^{\circ}\text{C}$		3.3		
$E_{rr}$	Reverse Recovery Energy	$I_{SD} = 400\text{ A}$ , $V_R = 800\text{ V}$ , $V_{GS} = -5\text{ V}$ , $L_s = 17\text{ nH}$ , $R_{g.on} = 3\ \Omega$	$di/dt = 8.4\text{ A/ns}$ , $T_{vj} = 25^{\circ}\text{C}$	$di/dt = 9.7\text{ A/ns}$ , $T_{vj} = 175^{\circ}\text{C}$	-	0.4	-	mJ
						2.1		
$Q_{RR}$	Recovered Charge	$I_{SD} = 400\text{ A}$ , $V_R = 800\text{ V}$ , $V_{GS} = -5\text{ V}$ , $R_{g.on} = 3\ \Omega$	$T_{vj} = 25^{\circ}\text{C}$		-	2.3	-	C
				$T_{vj} = 175^{\circ}\text{C}$		8.6		
$I_{RR}$	Peak Reverse Recovery Current	$I_{SD} = 400\text{ A}$ , $V_R = 800\text{ V}$ , $V_{GS} = -5\text{ V}$ , $R_{g.on} = 3\ \Omega$	$T_{vj} = 25^{\circ}\text{C}$		-	527	-	A
				$T_{vj} = 175^{\circ}\text{C}$		650		

( $T_{vj} = 25^{\circ}\text{C}$ , Unless Otherwise Specified)

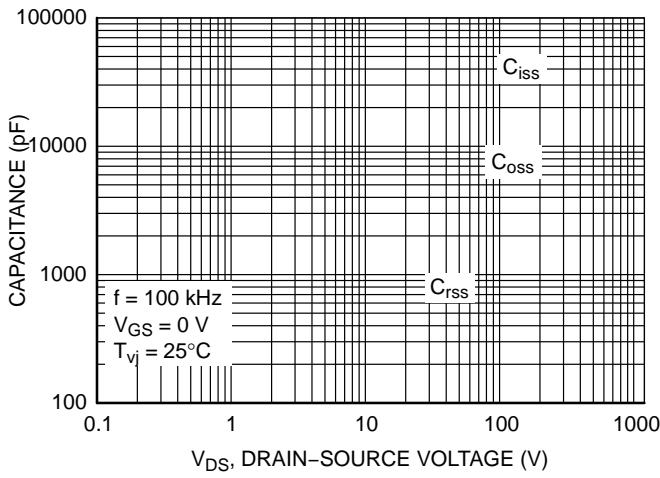
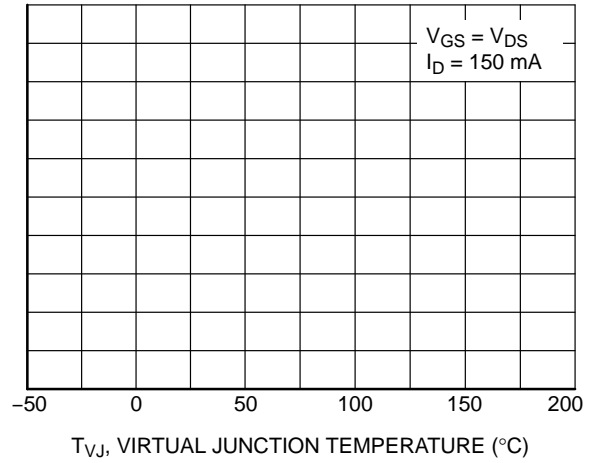
R25	Rated Resistance	$T_c = 25$						



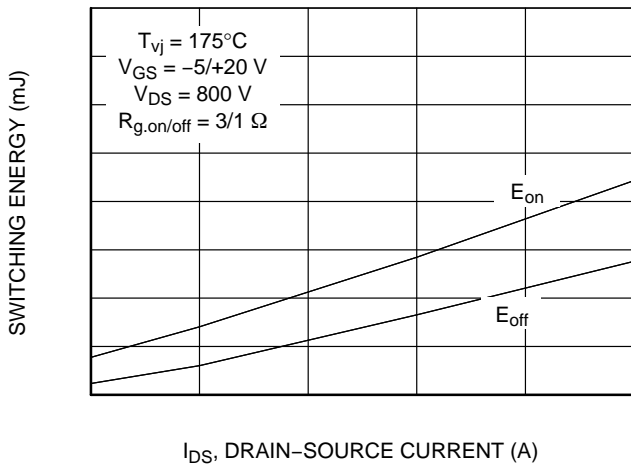
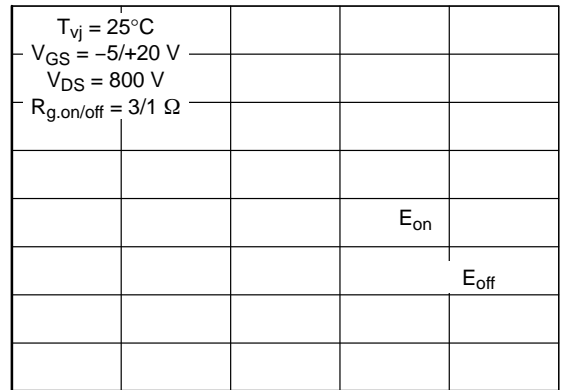
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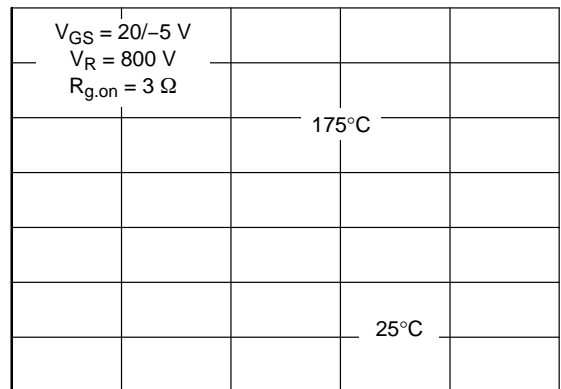
$V_{TH}$ , THRESHOLD VOLTAGE (V)



SWITCHING ENERGY (mJ)



REVERSE RECOVERY ENERGY (mJ)

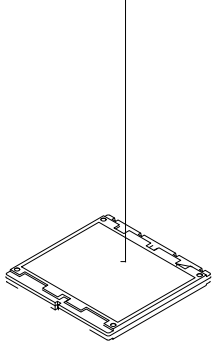







TEMPERATURE (°C)

$Q_g$ , TOTAL GATE CHARGE ( C )

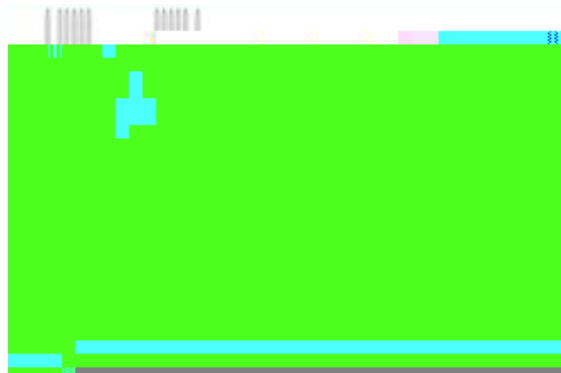


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ZZZ = Assembly Lot Code  
AT = Assembly & Test Location  
Y = Year  
WW = Work Week  
XXXX = Specific Device Code  
NNNN = Serial Number

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "•", may or may not be present. Some products may not follow the Generic Marking.

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