

Final datasheet
CoolSiC™ 1400 V SiC MOSFET G2 : Silicon Carbide MOSFET with .XT interconnection technology

特性

- $V_{DS} = 1400\text{ V}$ at $T_{vj} = 25^{\circ}\text{C}$
- $I_{DDC} = 65\text{ A}$ at $T_C = 100^{\circ}\text{C}$
- $R_{DS(on)} = 19\text{ m}\Omega$ at $V_{GS} = 18\text{ V}$, $T_{vj} = 25^{\circ}\text{C}$
- Very low switching losses
- Short circuit withstand time $2\text{ }\mu\text{s}$
- Benchmark gate threshold voltage, $V_{GS(th)} = 4.2\text{ V}$
- Robust against parasitic turn on, 0 V turn-off gate voltage can be applied
- Robust body diode for hard commutation
- .XT interconnection technology for best-in-class thermal performance
- 可以从下面链接寻找适合的英飞凌驱动 IC <https://www.infineon.com/gdfinder>



- Halogen-free
- Green
- Lead-free
- RoHS

可选应用

- General purpose drives (GPD)
- EV Charging
- Online UPS / Industrial UPS
- String inverter
- Energy storage systems (ESS)
- Welding

产品认证

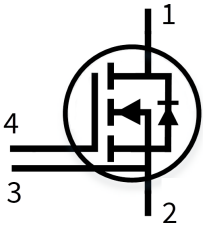
- Qualified for industrial applications according to the relevant tests of JEDEC47/20/22

描述

Pin definition:

- Pin 1 – Drain
- Pin 2 – Source
- Pin 3 – Kelvin sense contact
- Pin 4 – Gate

Note: the source and sense pins are not exchangeable, their exchange might lead to malfunction



Type	Package	Marking
IMZC140R019M2H	PG-TO247-4-U07	14M2H019



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1 封装

1 封装

表 1 特征值

特征参数	代号	标注或测试条件	数值			单位
			最小值	典型值	最大值	
Storage temperature	T_{stg}		-55		150	°C
Soldering temperature	T_{sold}	Wave soldering only allowed at leads 1.6 mm (0.063 in.) from case for 10 s			260	°C
Mounting torque	M	M3 screw, Maximum of mounting processes: 3			0.6	Nm
Thermal resistance, junction-ambient	$R_{th(j-a)}$				62	K/W
MOSFET/body diode thermal resistance, junction-case	$R_{th(j-c)}$			0.3	0.39	K/W

2 MOSFET

表 2 最大标定值

特征参数	代号	标注或测试条件		数值	单位
漏源极电压	V_{DSS}	$T_{vj} \geq 25\text{ °C}$		1400	V
Continuous DC drain current for $R_{th(j-c,max)}$, limited by $T_{vj(max)}$	I_{DDC}	$V_{GS} = 18\text{ V}$	$T_c = 25\text{ °C}$	92	A
			$T_c = 100\text{ °C}$	65	
Peak drain current, t_p limited by $T_{vj(max)}$ ¹⁾	I_{DM}	$V_{GS} = 18\text{ V}$		325	A
Gate-source voltage, max. transient voltage	V_{GS}	$t_p \leq 0.5\text{ }\mu\text{s}$, $D < 0.01$		-10...25	V
Gate-source voltage, max. static voltage ²⁾	V_{GS}			-7...23	V
Avalanche energy, single pulse	E_{AS}	$I_D = 40.4\text{ A}$, $V_{DD} = 50\text{ V}$, $L = 0.6\text{ mH}$, $T_{vj(start)} = 25\text{ °C}$		506	mJ
Avalanche energy, repetitive	E_{AR}	$I_D = 40.4\text{ A}$, $V_{DD} = 50\text{ V}$, $L = 3.1\text{ }\mu\text{H}$, $T_{vj(start)} = 25\text{ °C}$		2.5	mJ
Short-circuit withstand time	t_{SC}	$V_{DD} \leq 800\text{ V}$, $V_{DS,peak} < 1400\text{ V}$, $V_{GS(on)} = 15\text{ V}$, $T_{vj(start)} = 25\text{ °C}$		2	μs
Power dissipation, limited by $T_{vj(max)}$	P_{tot}		$T_c = 25\text{ °C}$	380	W
			$T_c = 100\text{ °C}$	190	

1) Verified by design.

2) The maximum gate-source voltage in the application design should be in accordance to IPC-9592B.

表 3 推荐值

特征参数	代号	标注或测试条件	[ZH]Values	单位
Recommended turn-on gate voltage	$V_{GS(on)}$		15...18	V
Recommended turn-off gate voltage	$V_{GS(off)}$		-5...0	V

表 4 特征值

特征参数	代号	标注或测试条件	数值			单位
			最小值	典型值	最大值	
Drain-source on-state resistance	$R_{DS(on)}$	$I_D = 40.4 \text{ A}$	$T_{vj} = 25 \text{ °C}, V_{GS(on)} = 18 \text{ V}$	19		mΩ
			$T_{vj} = 150 \text{ °C}, V_{GS(on)} = 18 \text{ V}$	41.1	53.8	
			$T_{vj} = 175 \text{ °C}, V_{GS(on)} = 18 \text{ V}$	48		
			$T_{vj} = 25 \text{ °C}, V_{GS(on)} = 15 \text{ V}$	23		
Gate-source threshold voltage	$V_{GS(th)}$	$I_D = 12.7 \text{ mA}, V_{DS} = V_{GS}$ (tested after 1 ms pulse at $V_{GS} = 20 \text{ V}$)	$T_{vj} = 25 \text{ °C}$	3.5	4.2	V
			$T_{vj} = 175 \text{ °C}$		3.2	
Zero gate-voltage drain current	I_{DSS}	$V_{DS} = 1400 \text{ V}, V_{GS} = 0 \text{ V}$	$T_{vj} = 25 \text{ °C}$		300	μA
			$T_{vj} = 175 \text{ °C}$	5.1		
Gate leakage current	I_{GSS}	$V_{DS} = 0 \text{ V}$	$V_{GS} = 23 \text{ V}$		120	nA
			$V_{GS} = -10 \text{ V}$		-120	
Forward transconductance	g_{fs}	$I_D = 40.4 \text{ A}, V_{DS} = 20 \text{ V}$		26		S
Internal gate resistance	$R_{G,int}$	$f = 1 \text{ MHz}, V_{AC} = 25 \text{ mV}$		2.1		Ω
Input capacitance	C_{iss}	$V_{DS} = 1000 \text{ V}, V_{GS} = 0 \text{ V}, f = 100 \text{ kHz}, V_{AC} = 25 \text{ mV}$		2860		pF
Output capacitance	C_{oss}	$V_{DS} = 1000 \text{ V}, V_{GS} = 0 \text{ V}, f = 100 \text{ kHz}, V_{AC} = 25 \text{ mV}$		99		pF
Reverse transfer capacitance	C_{rss}	$V_{DS} = 1000 \text{ V}, V_{GS} = 0 \text{ V}, f = 100 \text{ kHz}, V_{AC} = 25 \text{ mV}$		9		pF
C_{oss} stored energy	E_{oss}	Calculated based on $C_{oss} = f(V_{DD})$		63		μJ
Output charge	Q_{oss}	Calculated based on $C_{oss} = f(V_{DD})$		172		nC
Effective output capacitance, energy related	$C_{o(er)}$	$V_{DS} = 0...1000 \text{ V}, V_{GS} = 0 \text{ V},$ Calculated based on E_{oss}		197		pF

(待续)

表 4 (续) 特征值

特征参数	代号	标注或测试条件	数值			单位
			最小值	典型值	最大值	
Effective output capacitance, time related	$C_{o(tr)}$	$I_D = \text{constant}, V_{DS} = 0 \dots 1000 \text{ V}, V_{GS} = 0 \text{ V},$ Calculated based on Q_{OSS}		215		pF
Total gate charge	Q_G	$V_{DD} = 1000 \text{ V}, I_D = 40.4 \text{ A}, V_{GS} = 0/18 \text{ V},$ turn-on pulse		78		nC
Plateau gate charge	$Q_{GS(pl)}$	$V_{DD} = 1000 \text{ V}, I_D = 40.4 \text{ A}, V_{GS} = 0/18 \text{ V},$ turn-on pulse		22		nC
Gate-drain charge	Q_{GD}	$V_{DD} = 1000 \text{ V}, I_D = 40.4 \text{ A}, V_{GS} = 0/18 \text{ V},$ turn-on pulse		20		nC
Turn-on delay time	$t_{d(on)}$	$V_{DD} = 1000 \text{ V}, I_D = 40.4 \text{ A},$ $V_{GS} = 0/18 \text{ V},$ $R_{G,ext} = 2.3 \Omega, L_\sigma = 12 \text{ nH},$ diode: body diode at $V_{GS} = 0 \text{ V}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	8.9		ns
			$T_{vj} = 175 \text{ }^\circ\text{C}$	7.7		
Rise time	t_r	$V_{DD} = 1000 \text{ V}, I_D = 40.4 \text{ A},$ $V_{GS} = 0/18 \text{ V},$ $R_{G,ext} = 2.3 \Omega, L_\sigma = 12 \text{ nH},$ diode: body diode at $V_{GS} = 0 \text{ V}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	5.3		ns
			$T_{vj} = 175 \text{ }^\circ\text{C}$	4.9		
Turn-off delay time	$t_{d(off)}$	$V_{DD} = 1000 \text{ V}, I_D = 40.4 \text{ A},$ $V_{GS} = 0/18 \text{ V},$ $R_{G,ext} = 2.3 \Omega, L_\sigma = 12 \text{ nH},$ diode: body diode at $V_{GS} = 0 \text{ V}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	21		ns
			$T_{vj} = 175 \text{ }^\circ\text{C}$	24		
Fall time	t_f	$V_{DD} = 1000 \text{ V}, I_D = 40.4 \text{ A},$ $V_{GS} = 0/18 \text{ V},$ $R_{G,ext} = 2.3 \Omega, L_\sigma = 12 \text{ nH},$ diode: body diode at $V_{GS} = 0 \text{ V}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	8.7		ns
			$T_{vj} = 175 \text{ }^\circ\text{C}$	9.5		
Turn-on energy	E_{on}	$V_{DD} = 1000 \text{ V}, I_D = 40.4 \text{ A},$ $V_{GS} = 0/18 \text{ V},$ $R_{G,ext} = 2.3 \Omega, L_\sigma = 12 \text{ nH},$ diode: body diode at $V_{GS} = 0 \text{ V}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	386		μJ
			$T_{vj} = 175 \text{ }^\circ\text{C}$	1163		
Turn-off energy	E_{off}	$V_{DD} = 1000 \text{ V}, I_D = 40.4 \text{ A},$ $V_{GS} = 0/18 \text{ V},$ $R_{G,ext} = 2.3 \Omega, L_\sigma = 12 \text{ nH},$ diode: body diode at $V_{GS} = 0 \text{ V}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	178		μJ
			$T_{vj} = 175 \text{ }^\circ\text{C}$	205		

(待续)

3 Body diode (MOSFET)

表 4 (续) 特征值

特征参数	代号	标注或测试条件	数值			单位
			最小值	典型值	最大值	
Total switching energy ¹⁾	E_{tot}	$V_{\text{DD}} = 1000 \text{ V}$, $I_{\text{D}} = 40.4 \text{ A}$, $V_{\text{GS}} = 0/18 \text{ V}$, $R_{\text{G,ext}} = 2.3 \Omega$, $L_{\sigma} = 12 \text{ nH}$, diode: body diode at $V_{\text{GS}} = 0 \text{ V}$	$T_{\text{vj}} = 25 \text{ }^{\circ}\text{C}$	643		μJ
			$T_{\text{vj}} = 175 \text{ }^{\circ}\text{C}$	1695		
Turn-on energy at -5 V	E_{on}	$V_{\text{DD}} = 1000 \text{ V}$, $I_{\text{D}} = 40.4 \text{ A}$, $V_{\text{GS}} = -5/18 \text{ V}$, $R_{\text{G,ext}} = 2.3 \Omega$, $L_{\sigma} = 12 \text{ nH}$, diode: body diode at $V_{\text{GS}} = -5 \text{ V}$	$T_{\text{vj}} = 25 \text{ }^{\circ}\text{C}$	386		μJ
			$T_{\text{vj}} = 175 \text{ }^{\circ}\text{C}$	1194		
Turn-off energy at -5 V	E_{off}	$V_{\text{DD}} = 1000 \text{ V}$, $I_{\text{D}} = 40.4 \text{ A}$, $V_{\text{GS}} = -5/18 \text{ V}$, $R_{\text{G,ext}} = 2.3 \Omega$, $L_{\sigma} = 12 \text{ nH}$, diode: body diode at $V_{\text{GS}} = -5 \text{ V}$	$T_{\text{vj}} = 25 \text{ }^{\circ}\text{C}$	82		μJ
			$T_{\text{vj}} = 175 \text{ }^{\circ}\text{C}$	96		
Total switching energy at -5 V ¹⁾	E_{tot}	$V_{\text{DD}} = 1000 \text{ V}$, $I_{\text{D}} = 40.4 \text{ A}$, $V_{\text{GS}} = -5/18 \text{ V}$, $R_{\text{G,ext}} = 2.3 \Omega$, $L_{\sigma} = 12 \text{ nH}$, diode: body diode at $V_{\text{GS}} = -5 \text{ V}$	$T_{\text{vj}} = 25 \text{ }^{\circ}\text{C}$	547		μJ
			$T_{\text{vj}} = 175 \text{ }^{\circ}\text{C}$	1627		
Virtual junction temperature	T_{vj}		-55		175	$^{\circ}\text{C}$

1) including E_{fr}

注: The chip technology was characterized up to 200 kV/ μs . The measured dV/dt was limited by measurement test setup and package.

Characteristics at $T_{\text{vj}} = 25^{\circ}\text{C}$, unless otherwise specified.

3 Body diode (MOSFET)

表 5 最大标定值

特征参数	代号	标注或测试条件		数值	单位
Drain-source voltage	V_{DSS}	$T_{\text{vj}} \geq 25 \text{ }^{\circ}\text{C}$		1400	V
Continuous reverse drain current for $R_{\text{th(j-c,max)}}$, limited by $T_{\text{vj(max)}}$	I_{SDC}	$V_{\text{GS}} = 0 \text{ V}$	$T_{\text{c}} = 25 \text{ }^{\circ}\text{C}$	72	A
			$T_{\text{c}} = 100 \text{ }^{\circ}\text{C}$	40	
Peak reverse drain current, t_{p} limited by $T_{\text{vj(max)}}$	I_{SM}	$V_{\text{GS}} = 0 \text{ V}$		195	A

3 Body diode (MOSFET)

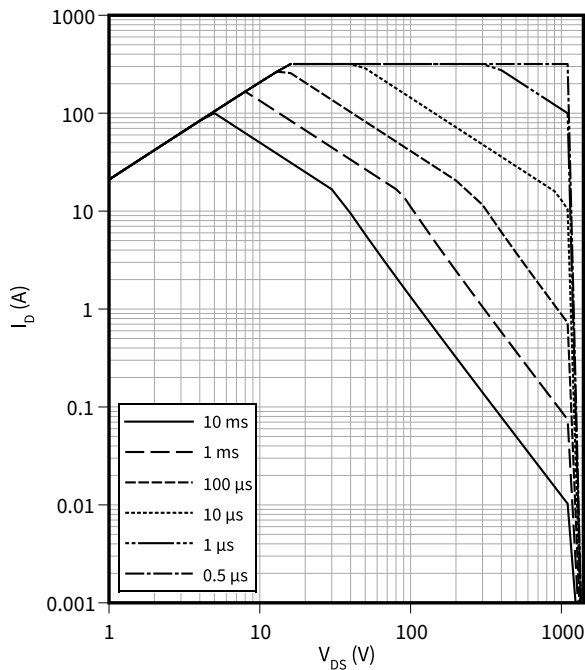
表 6 特征值

特征参数	代号	标注或测试条件		数值			单位
				最小值	典型值	最大值	
Drain-source reverse voltage	V_{SD}	$I_{SD} = 40.4\text{ A}$, $V_{GS} = 0\text{ V}$	$T_{vj} = 25\text{ °C}$		4.2	5.5	V
			$T_{vj} = 100\text{ °C}$		4.11		
			$T_{vj} = 175\text{ °C}$		4.05		
MOSFET forward recovery charge	Q_{fr}	$V_{DD} = 1000\text{ V}$, $I_{SD} = 40.4\text{ A}$, $V_{GS} = 0\text{ V}$, $R_{GS(on)} = 2.3\text{ }\Omega$, Q_{fr} includes also Q_C	$T_{vj} = 25\text{ °C}$		0.46		μC
			$T_{vj} = 175\text{ °C}$		1.41		
MOSFET peak forward recovery current	I_{frm}	$V_{DD} = 1000\text{ V}$, $I_{SD} = 40.4\text{ A}$, $V_{GS} = 0\text{ V}$, $R_{GS(on)} = 2.3\text{ }\Omega$, Q_{fr} includes also Q_C	$T_{vj} = 25\text{ °C}$		71		A
			$T_{vj} = 175\text{ °C}$		135		
MOSFET forward recovery energy	E_{fr}	$V_{DD} = 1000\text{ V}$, $I_{SD} = 40.4\text{ A}$, $V_{GS} = 0\text{ V}$, $R_{GS(on)} = 2.3\text{ }\Omega$, Q_{fr} includes also Q_C	$T_{vj} = 25\text{ °C}$		79		μJ
			$T_{vj} = 175\text{ °C}$		327		
MOSFET forward recovery energy at -5 V	E_{fr}	$V_{DD} = 1000\text{ V}$, $I_{SD} = 40.4\text{ A}$, $V_{GS} = -5\text{ V}$, $R_{GS(on)} = 2.3\text{ }\Omega$, Q_{fr} includes also Q_C	$T_{vj} = 25\text{ °C}$		79		μJ
			$T_{vj} = 175\text{ °C}$		337		
Virtual junction temperature	T_{vj}			-55		175	$^{\circ}\text{C}$

4 特征参数图表

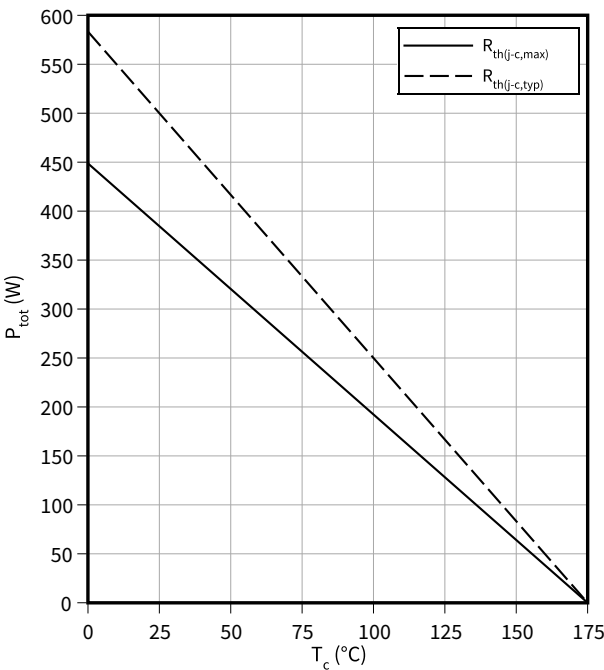
Safe operating area (SOA)

$I_D = f(V_{DS})$
 $T_{vj} \leq 175\text{ }^{\circ}\text{C}, T_c = 25\text{ }^{\circ}\text{C}$



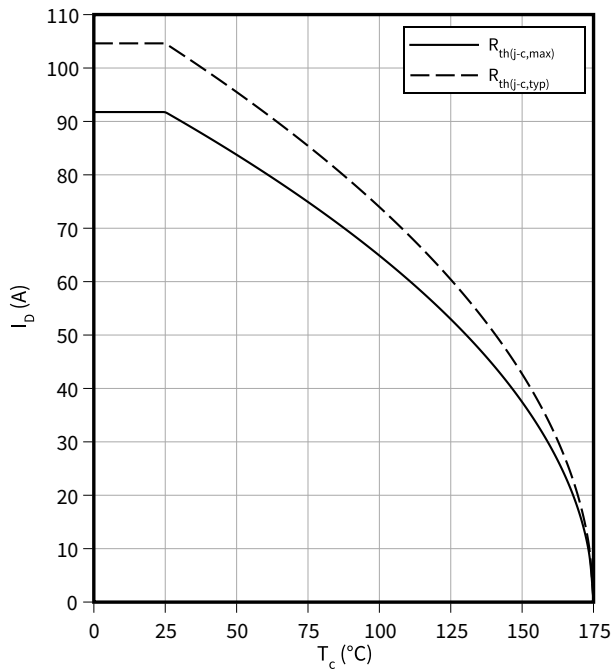
Power dissipation as a function of case temperature

$P_{tot} = f(T_c)$



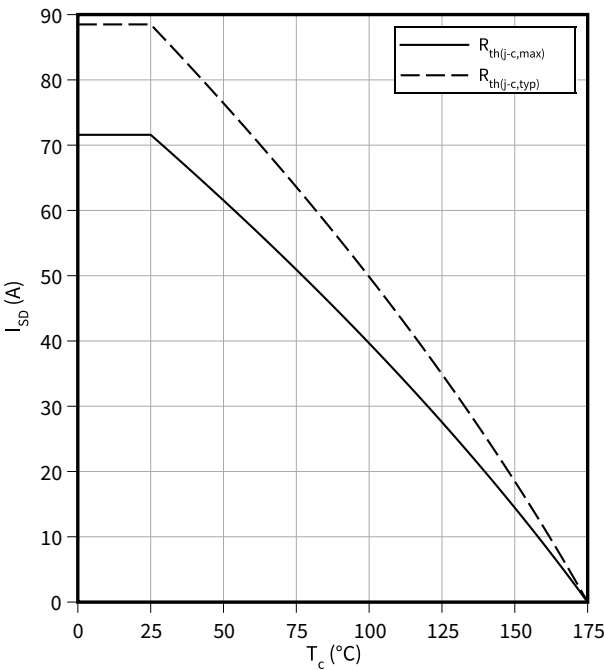
Maximum DC drain to source current as a function of case temperature limited by bond wire

$I_D = f(T_c)$



Maximum source to drain current as a function of case temperature limited by bond wire

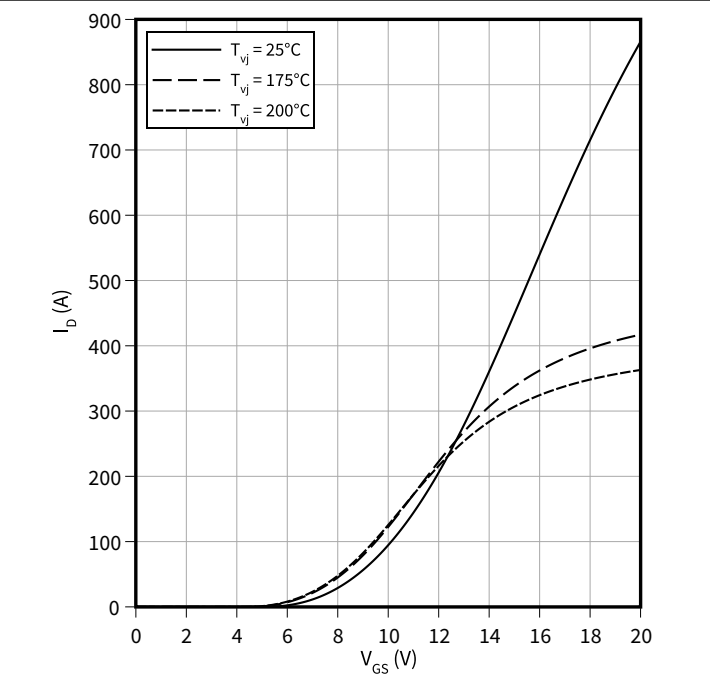
$I_{SD} = f(T_c)$
 $V_{GS} = 0\text{ V}$



4 特征参数图表

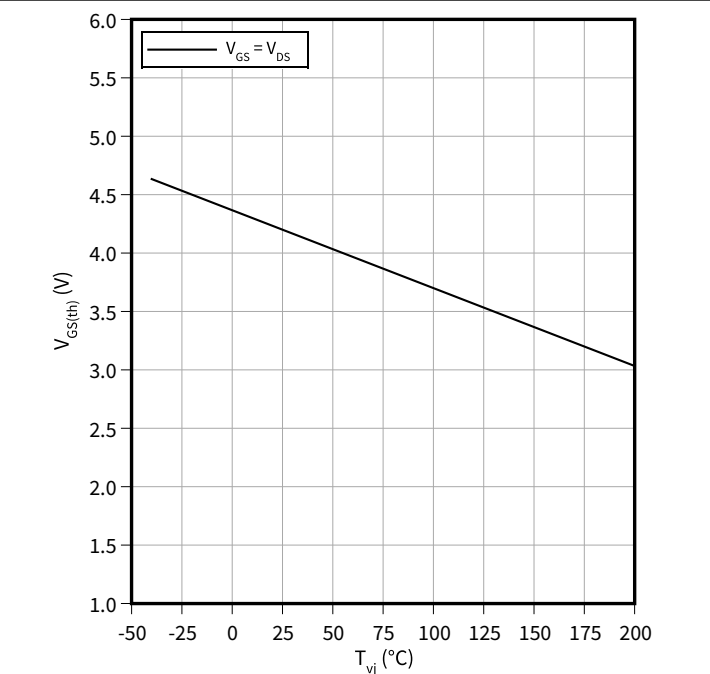
Typical transfer characteristic

$I_D = f(V_{GS})$
 $V_{DS} = 20\text{ V}$, $t_p = 20\text{ }\mu\text{s}$



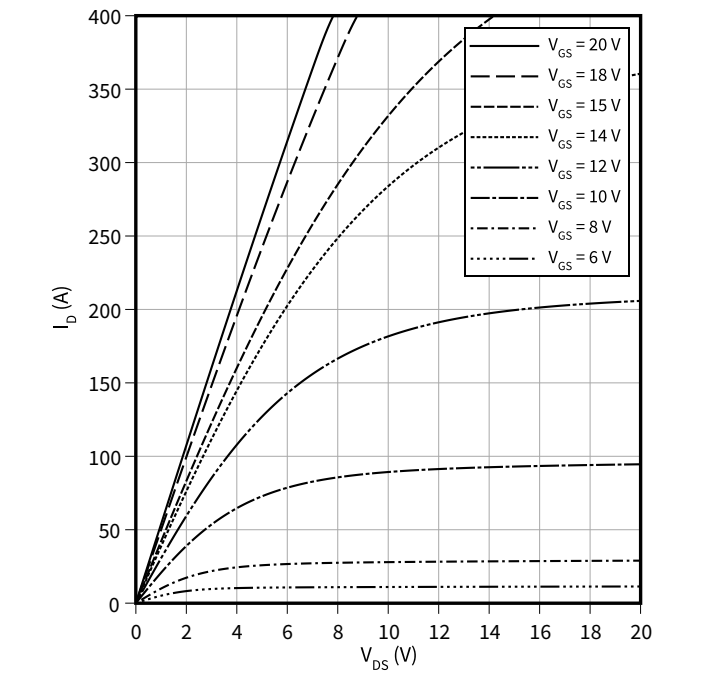
Typical gate-source threshold voltage as a function of junction temperature

$V_{GS(th)} = f(T_{vj})$
 $I_D = 12.7\text{ mA}$



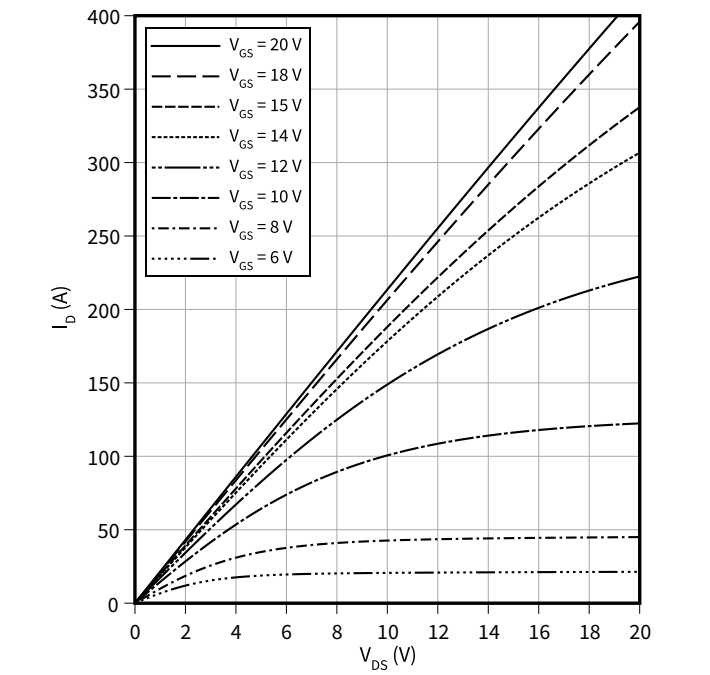
Typical output characteristic, V_{GS} as a parameter

$I_D = f(V_{DS})$
 $T_{vj} = 25\text{ }^\circ\text{C}$, $t_p = 20\text{ }\mu\text{s}$



Typical output characteristic, V_{GS} as a parameter

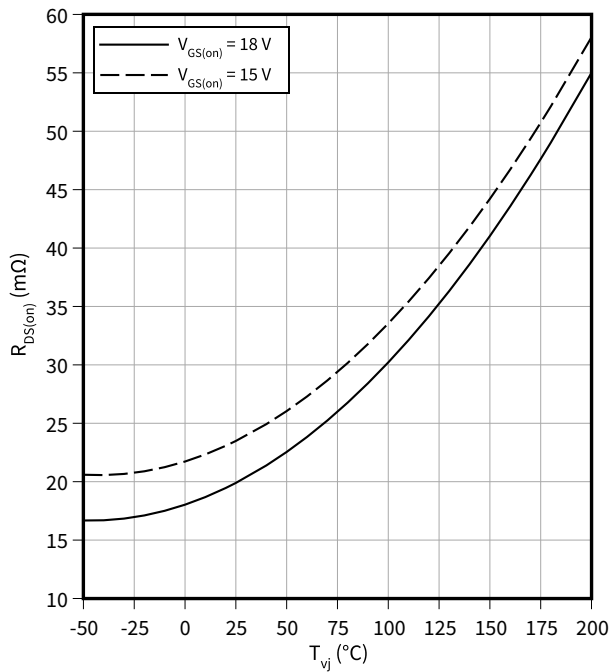
$I_D = f(V_{DS})$
 $T_{vj} = 175\text{ }^\circ\text{C}$, $t_p = 20\text{ }\mu\text{s}$



4 特征参数图表

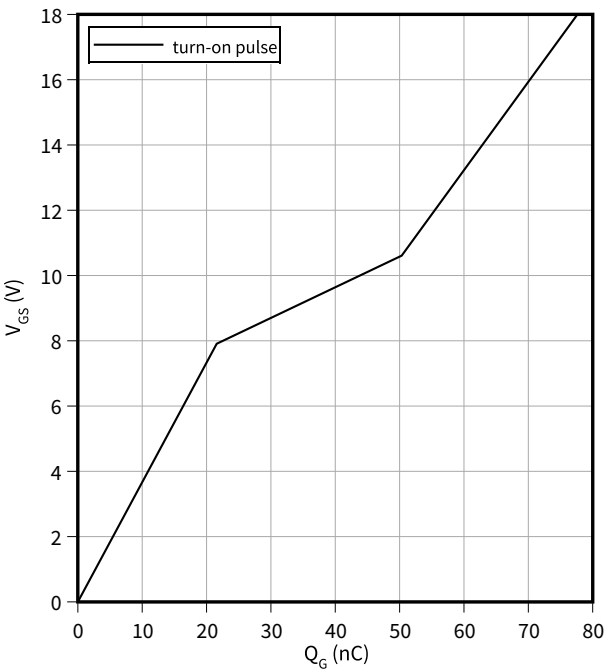
Typical on-state resistance as a function of junction temperature

$R_{DS(on)} = f(T_{vj})$
 $I_D = 40.4\text{ A}$



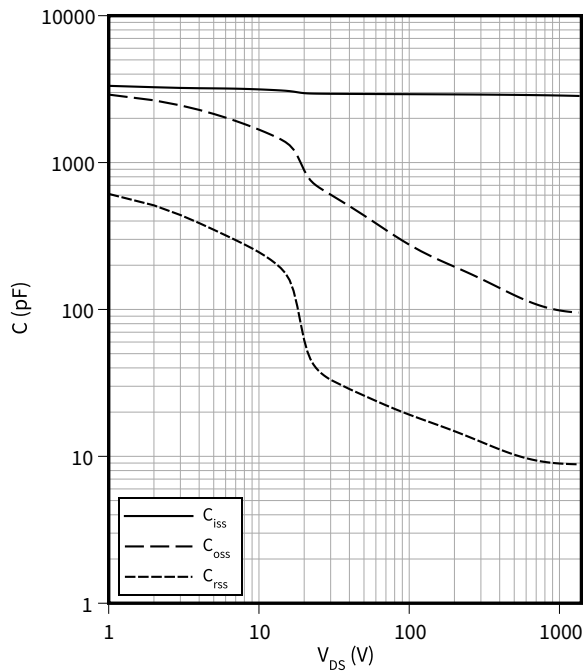
Typical gate charge

$V_{GS} = f(Q_G)$
 $I_D = 40.4\text{ A}, V_{DS} = 1000\text{ V}$



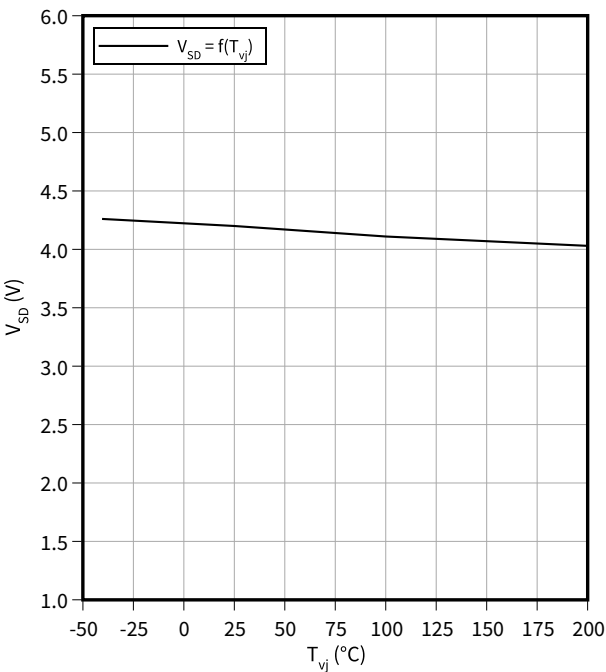
Typical capacitance as a function of drain-source voltage

$C = f(V_{DS})$
 $f = 100\text{ kHz}, V_{GS} = 0\text{ V}$



Typical reverse drain voltage as a function of junction temperature

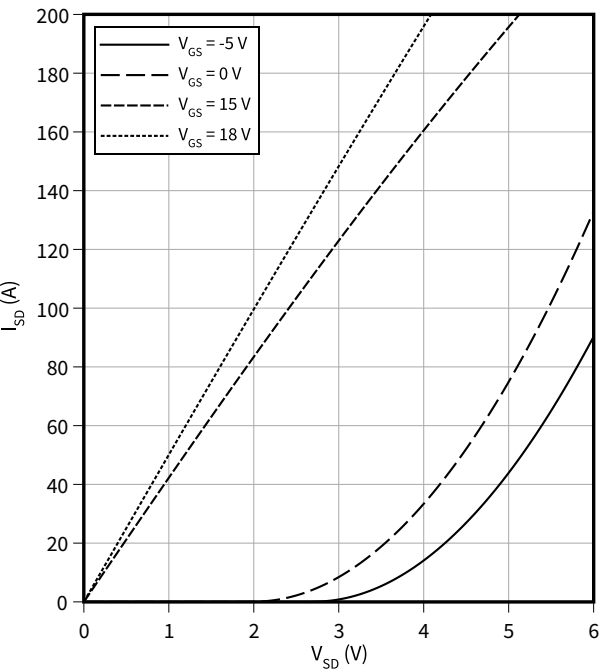
$V_{SD} = f(T_{vj})$
 $I_{SD} = 40.4\text{ A}, V_{GS} = 0\text{ V}$



4 特征参数图表

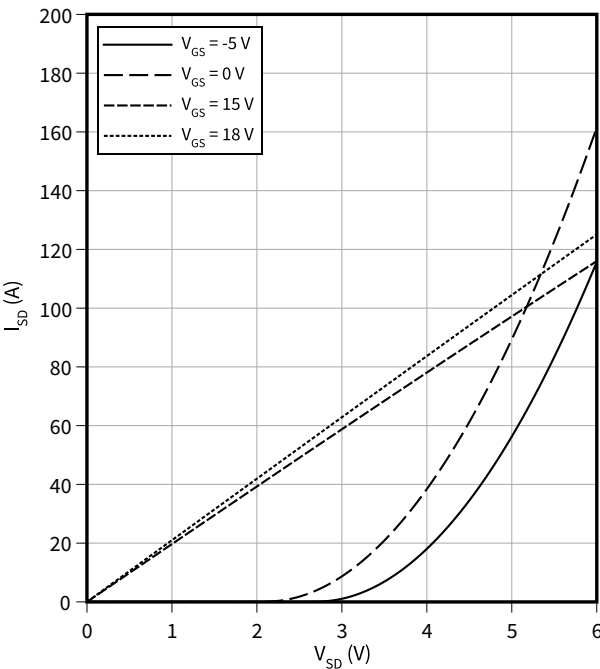
Typical reverse drain current as a function of reverse drain voltage, V_{GS} as a parameter

$I_{SD} = f(V_{SD})$
 $T_{vj} = 25\text{ }^{\circ}\text{C}$, $t_p = 20\text{ }\mu\text{s}$



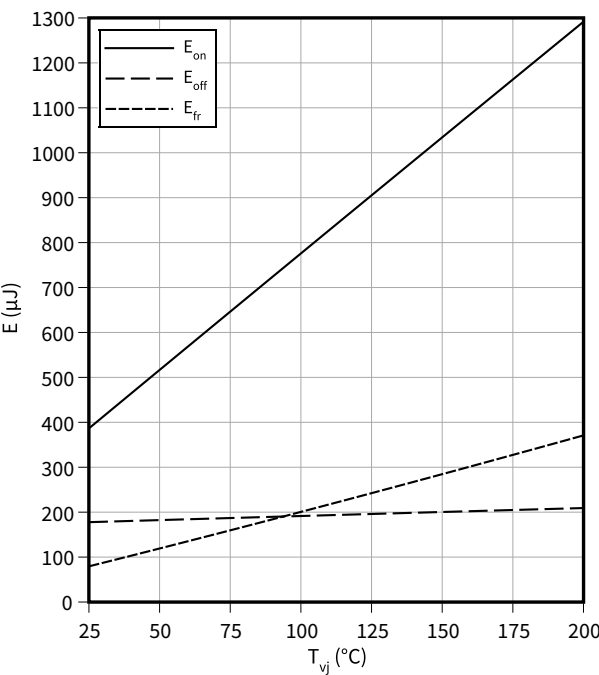
Typical reverse drain current as a function of reverse drain voltage, V_{GS} as a parameter

$I_{SD} = f(V_{SD})$
 $T_{vj} = 175\text{ }^{\circ}\text{C}$, $t_p = 20\text{ }\mu\text{s}$



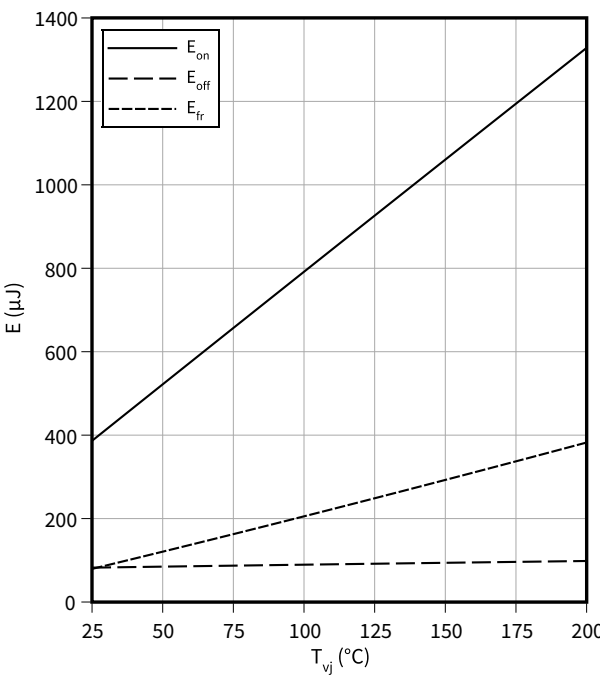
Typical switching energy as a function of junction temperature, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = 0\text{ V}$

$E = f(T_{vj})$
 $V_{GS} = 0/18\text{ V}$, $I_D = 40.4\text{ A}$, $R_{G,ext} = 2.3\text{ }\Omega$, $V_{DD} = 1000\text{ V}$



Typical switching energy as a function of junction temperature, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = -5\text{ V}$

$E = f(T_{vj})$
 $V_{GS} = -5/18\text{ V}$, $I_D = 40.4\text{ A}$, $R_{G,ext} = 2.3\text{ }\Omega$, $V_{DD} = 1000\text{ V}$

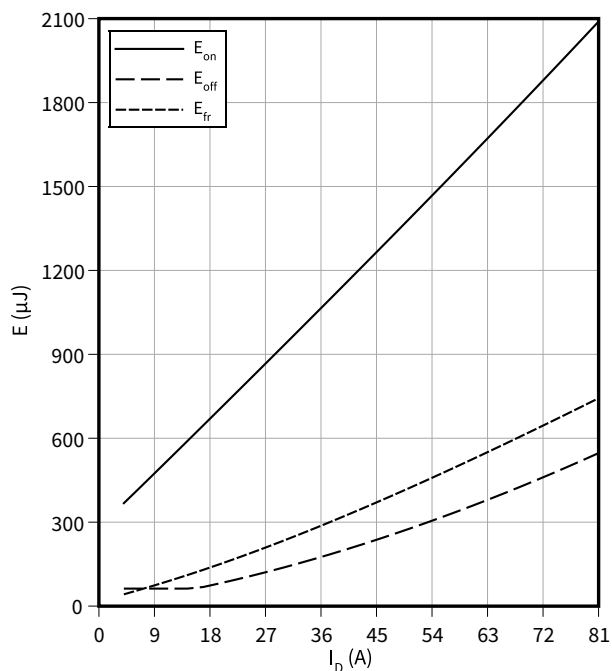


4 特征参数图表

Typical switching energy as a function of drain current, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = 0$ V

$$E = f(I_D)$$

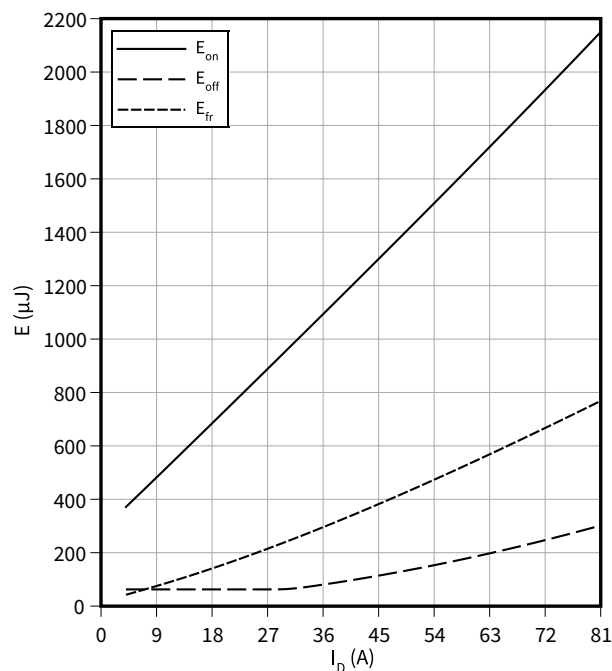
$V_{GS} = 0/18$ V, $T_{vj} = 175$ °C, $R_{G,ext} = 2.3$ Ω , $V_{DD} = 1000$ V



Typical switching energy as a function of drain current, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = -5$ V

$$E = f(I_D)$$

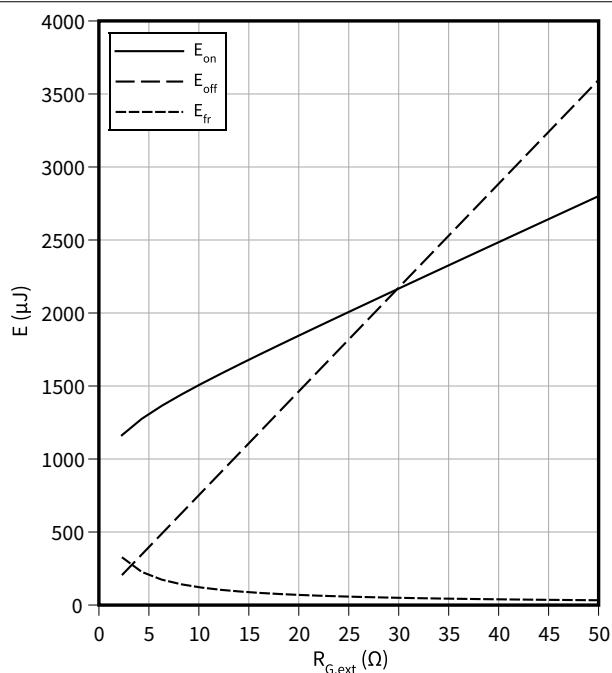
$V_{GS} = -5/18$ V, $T_{vj} = 175$ °C, $R_{G,ext} = 2.3$ Ω , $V_{DD} = 1000$ V



Typical switching energy as a function of gate resistance, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = 0$ V

$$E = f(R_{G,ext})$$

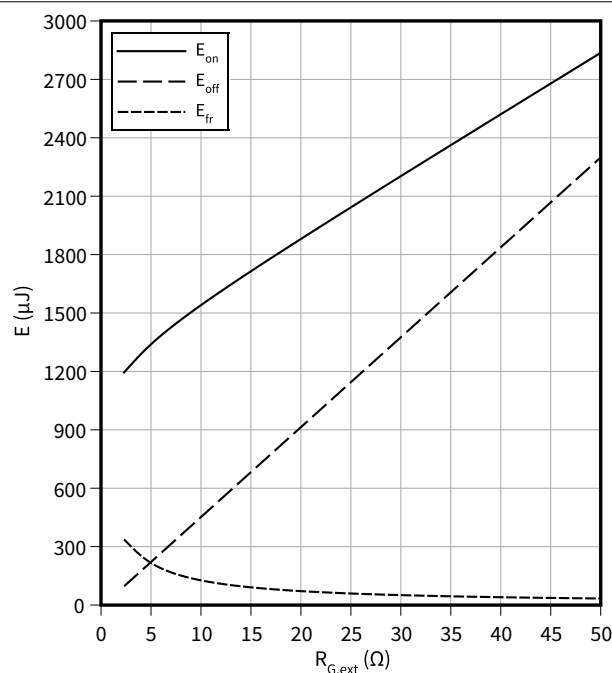
$V_{GS} = 0/18$ V, $I_D = 40.4$ A, $T_{vj} = 175$ °C, $V_{DD} = 1000$ V



Typical switching energy as a function of gate resistance, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = -5$ V

$$E = f(R_{G,ext})$$

$V_{GS} = -5/18$ V, $I_D = 40.4$ A, $T_{vj} = 175$ °C, $V_{DD} = 1000$ V

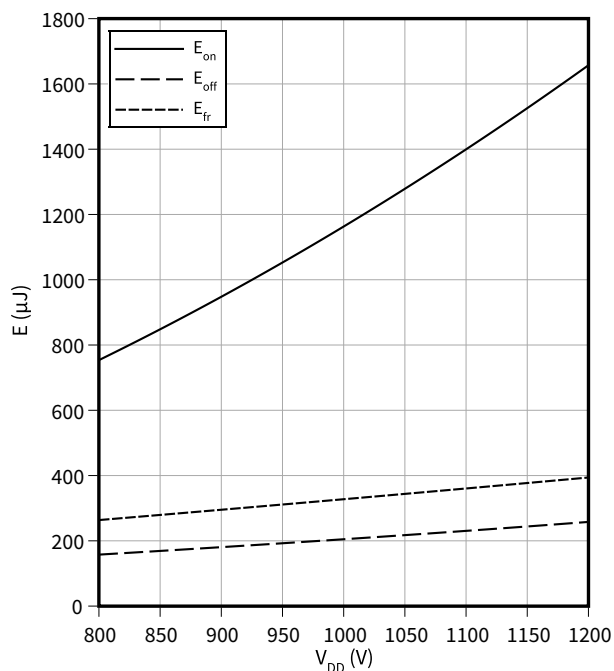


4 特征参数图表

Typical switching energy as a function of DC link voltage, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = 0$ V

$$E = f(V_{DD})$$

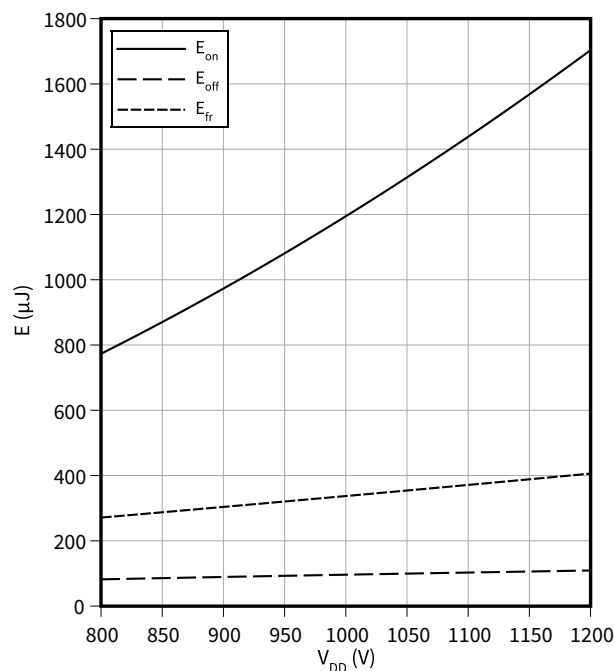
$V_{GS} = 0/18$ V, $I_D = 40.4$ A, $T_{vj} = 175$ °C, $R_{G,ext} = 2.3$ Ω



Typical switching energy as a function of DC link voltage, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = -5$ V

$$E = f(V_{DD})$$

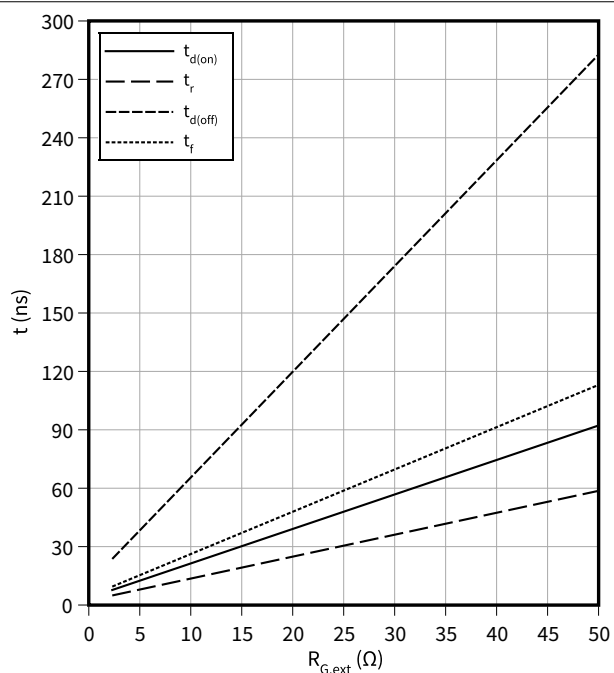
$V_{GS} = -5/18$ V, $I_D = 40.4$ A, $T_{vj} = 175$ °C, $R_{G,ext} = 2.3$ Ω



Typical switching times as a function of gate resistance, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = 0$ V

$$t = f(R_{G,ext})$$

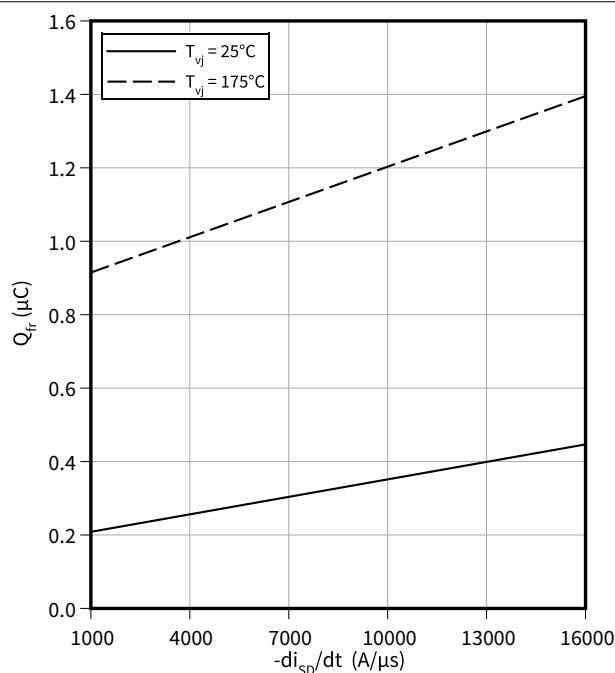
$V_{GS} = 0/18$ V, $I_D = 40.4$ A, $T_{vj} = 175$ °C, $V_{DD} = 1000$ V



Typical reverse recovery charge as a function of reverse drain current slope, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = 0$ V

$$Q_{fr} = f(-di_{SD}/dt)$$

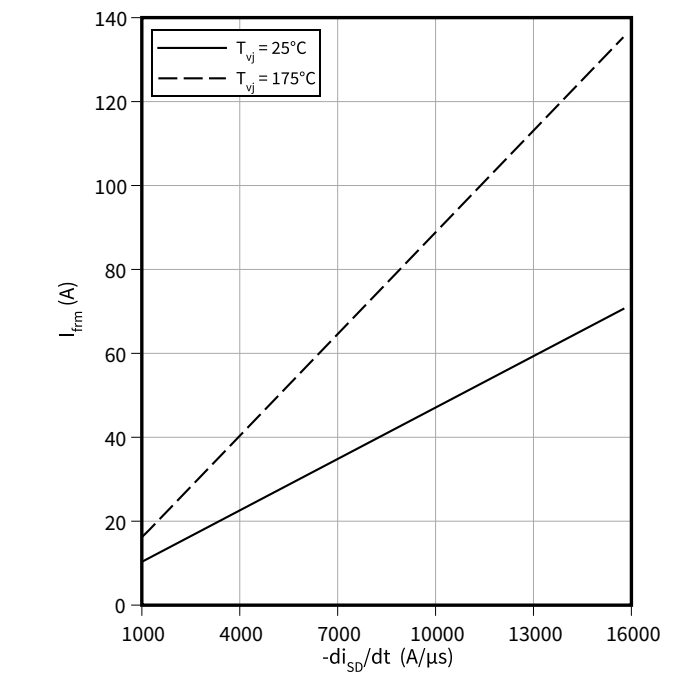
$V_{GS} = 0/18$ V, $I_{SD} = 40.4$ A, $V_{DD} = 1000$ V



4 特征参数图表

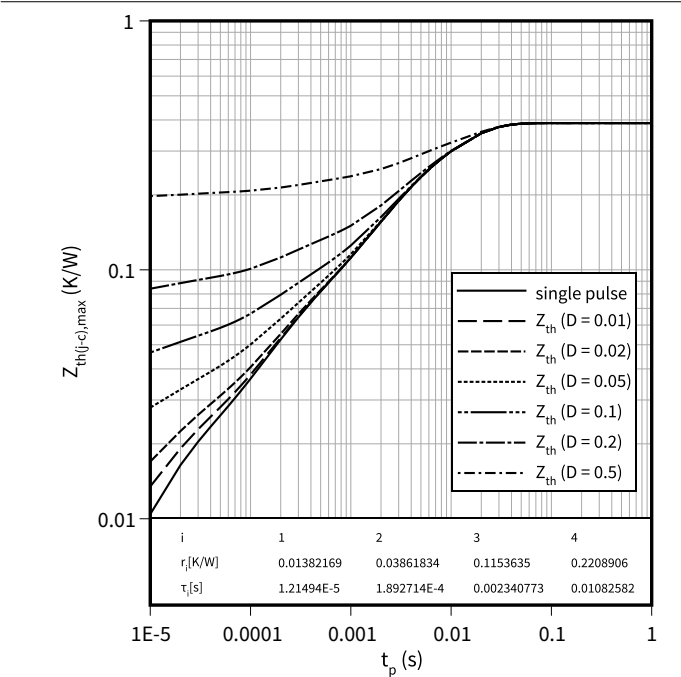
Typical reverse recovery current as a function of reverse drain current slope, test circuit in Fig. F, 2nd device own body diode: $V_{GS} = 0\text{ V}$

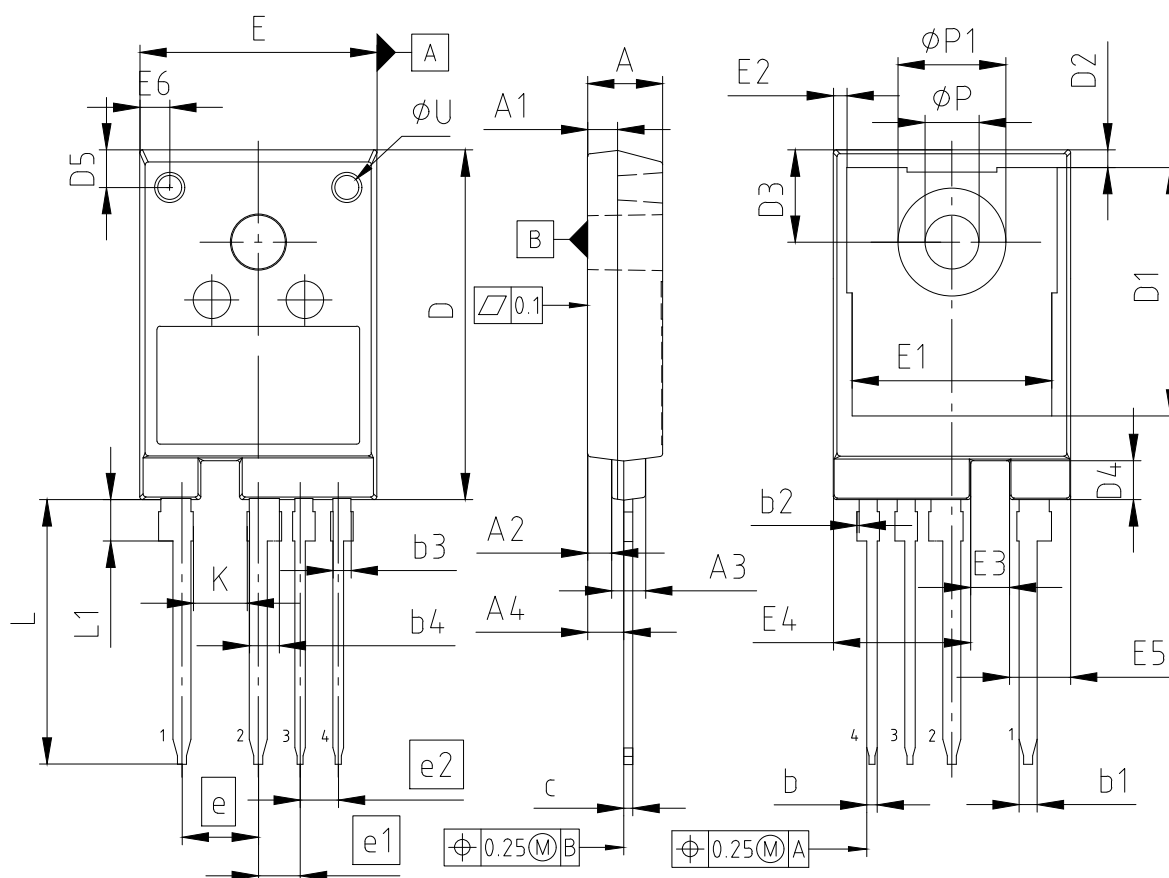
$I_{frm} = f(-di_{SD}/dt)$
 $V_{GS} = 0/18\text{ V}$, $I_{SD} = 40.4\text{ A}$, $V_{DD} = 1000\text{ V}$



Max. transient thermal impedance (MOSFET/diode)

$Z_{th(j-c),max} = f(t_p)$
 $D = t_p/T$





PACKAGE - GROUP NUMBER:		PG-TO247-4-U07			
DIMENSIONS	MILLIMETERS		DIMENSIONS	MILLIMETERS	
	MIN.	MAX.		MIN.	MAX.
A	4.90	5.10	E	15.60	16.00
A1	1.90	2.10	E1	13.10	13.50
A2	1.50	1.70	E2	0.60	1.20
A3	2.16	2.36	E3	2.48	2.68
A4	2.31	2.51	E4	9.05	9.25
b	0.60	0.80	E5	3.97	4.17
b1	1.10	1.30	E6	1.80	2.20
b2	---	0.15	e	5.08	
b3	1.10	1.30	e1	2.79	
b4	1.90	2.10	e2	2.54	
c	0.50	0.70	K	3.50	---
D	23.10	23.50	L	17.50	17.80
D1	16.25	16.85	L1	2.61	2.91
D2	0.97	1.37	N	4	
D3	6.00	6.30	ØP1	7.00	7.40
D4	2.50	2.70	ØP	3.50	3.70
D5	2.30	2.70	ØU	1.40	1.80

NOTES: DIMENSIONS DO NOT INCLUDE MOLD FLASH, PROTRUSION OR GATE BURRS
N IS THE NUMBER OF LEADS

图 1

6 Testing conditions

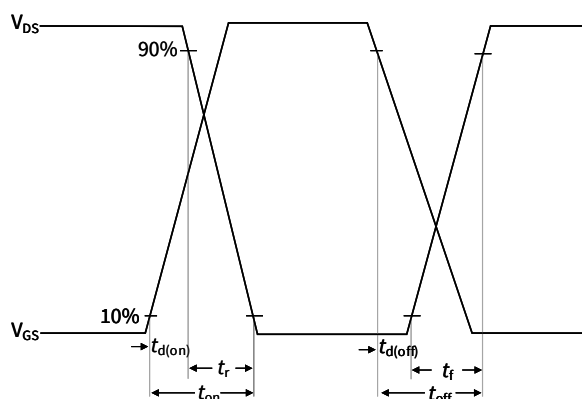


Figure A. Definition of switching times

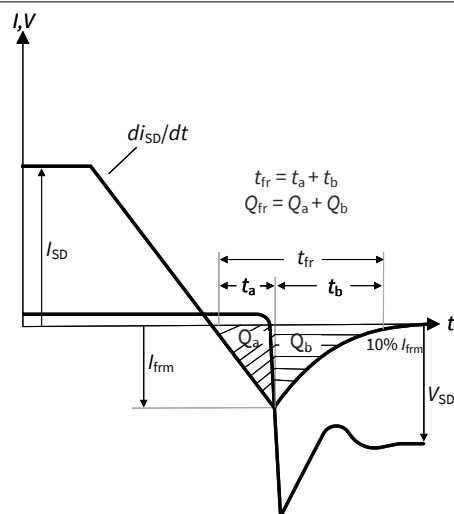


Figure B. Definition of body diode switching characteristics

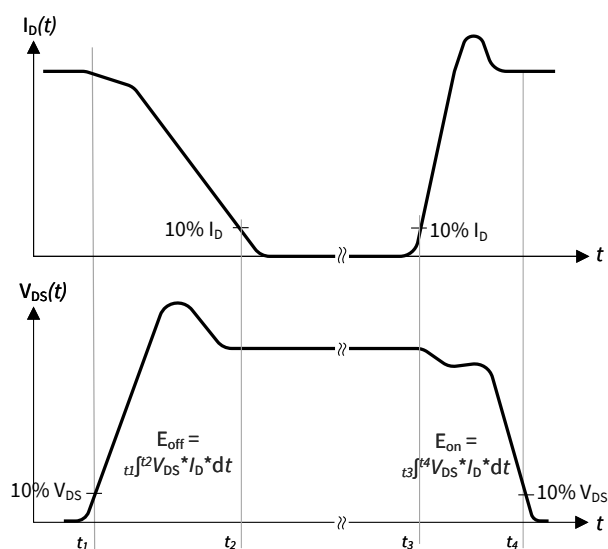


Figure C. Definition of switching losses

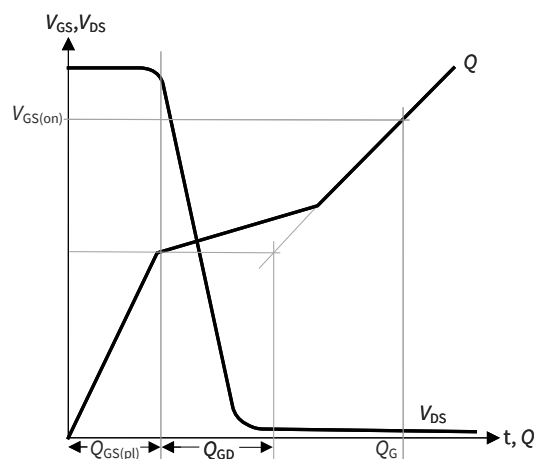


Figure D. Definition of QGD



Figure E. Thermal equivalent circuit

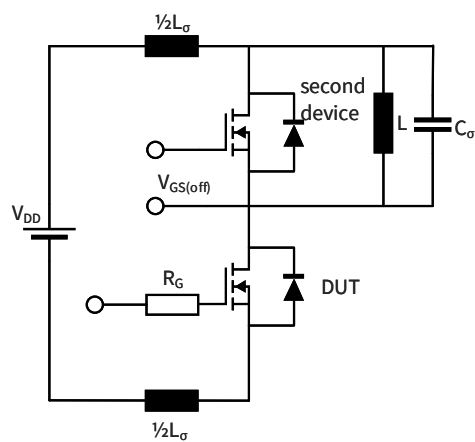


Figure F. Dynamic test circuit

Parasitic inductance L_{σ} ,
Parasitic capacitor C_{σ} ,



修订历史

修订历史

修订版本	发布日期	变更说明
0.10	2025-05-28	Preliminary datasheet
1.00	2025-06-12	Final datasheet

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