

Final datasheet

Features

- Electrical features
 - $V_{DS} = 1400\text{ V}$
 - $I_{DN} = 850\text{ A} / I_{DRM} = 1700\text{ A}$
 - Silicon carbide MOSFET with .XT
 - Low $R_{DS,on}$
 - Low switching losses
 - Low inductive design
 - $T_{vj,op} = 175^{\circ}\text{C}$
- Mechanical features
 - High power cycling capability due to .XT
 - High creepage and clearance distances
 - High vibration resistance
 - Direct-cooled PinFin base plate
 - Integrated temperature sensor
 - Power terminals for laser welding
 - Aux terminals with PressFIT contact technology
 - RoHS compliant



Potential applications

- CAV electric drive train on road

Product validation

- Qualified according to AQC 324, release no.: 03.1/2021
- Vibration resistance qualified according to ISO 16750-3
- Qualified according to IPC-9797

Description

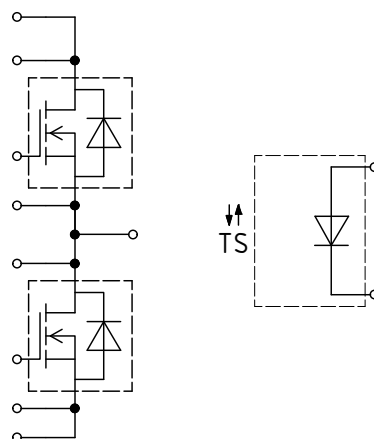




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1 Package

1 Package

Table 1 Insulation coordination

Parameter	Symbol	Note or test condition	Values	Unit
Isolation test voltage	V_{ISOL}	RMS, $f = 50 \text{ Hz}$, $t = 1 \text{ min}$	3.4	kV
Material of module baseplate			Cu+Ni ¹⁾	
Internal isolation		basic insulation (class 1, IEC 61140)	Si_3N_4	
Creepage distance	$d_{\text{Creep min}}$	terminal to baseplate, min., (PD2, IEC 60664-1, Ed. 3.0)	16.6	mm
Creepage distance	$d_{\text{Creep min}}$	terminal to terminal, min., (PD2, IEC 60664-1, Ed. 3.0)	17.6	mm
Clearance	$d_{\text{Clear min}}$	terminal to baseplate, min.	14.0	mm
Clearance	$d_{\text{Clear min}}$	terminal to terminal, min.	13.2	mm
Comparative tracking index	CTI		175	

1) Ni plated Cu baseplate.

Table 2 Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Pressure drop in cooling circuit ¹⁾	Δp	$\Delta V / \Delta t = 10.0 \text{ dm}^3/\text{min}$, 50% water / 50% ethylenglycol, $T_F = 60 \text{ }^\circ\text{C}$		102		mbar
Maximum pressure in cooling circuit	p				3	bar
Stray inductance module	L_{sDS}			6.5		nH
Module lead resistance, terminals - chip	$R_{\text{DD'+SS'}}$	$T_F = 25 \text{ }^\circ\text{C}$, per switch		0.4		mΩ
Storage temperature	T_{stg}		-40		125	°C
Maximum baseplate operation temperature	T_{BPmax}				150	°C
Mounting torque for module mounting	M	- Mounting according to valid application note ²⁾	0.45		0.55	Nm
		PCB to frame, EJOT Delta PT, Screw baseplate to heatsink, M4 8.8, Screw				
Weight	G			435		g

- 1) Design of the heat sink, flow rate and flow direction of the coolant according to application note AN-2026-04 "HybridPACK HD Application and Mounting Instructions".
- 2) AN-2026-04 "HybridPACK HD Application and Mounting Instructions".

2 MOSFET

Table 3 Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Drain-source voltage	V_{DSS}		$T_{vj} = -40...175\text{ °C}$	1400	V
Implemented drain current	I_{DN}			850	A
Continuous DC drain current	I_{DDC}	$T_{vj} = 175\text{ °C}$, $V_{GS} = 18\text{ V}$	$T_F = 65\text{ °C}$	785 ¹⁾	A
Repetitive peak drain current	I_{DRM}	verified by design, t_p limited by T_{vjmax}		1700	A
Gate-source voltage, max. transient voltage	V_{GS}			-10...23	V
Gate-source voltage, max. static voltage	V_{GS}			-7...20	V

1) calculated with typical $R_{th,JF} + 4.5\sigma_{Rth,JF}$.

Table 4 Recommended values

Parameter	Symbol	Note or test condition	Values	Unit
On-state gate voltage	$V_{GS(on)}$		15...18	V
Off-state gate voltage	$V_{GS(off)}$		-5...-3	V

Table 5 Characteristic values

Parameter	Symbol	Note or test condition		Values			Unit
				Min.	Typ.	Max.	
Drain-source on-resistance	$R_{DS(on)}$	$I_D = 850\text{ A}$	$V_{GS} = 15\text{ V}$, $T_{vj} = 25\text{ °C}$		1.16	1.58	mΩ
			$V_{GS} = 15\text{ V}$, $T_{vj} = 125\text{ °C}$		1.77		
			$V_{GS} = 15\text{ V}$, $T_{vj} = 175\text{ °C}$		2.26		
			$V_{GS} = 18\text{ V}$, $T_{vj} = 25\text{ °C}$		1	1.36	
			$V_{GS} = 18\text{ V}$, $T_{vj} = 125\text{ °C}$		1.65		
			$V_{GS} = 18\text{ V}$, $T_{vj} = 175\text{ °C}$		2.15		
Gate threshold voltage	$V_{GS(th)}$	$I_D = 310\text{ mA}$, $V_{DS} = V_{GS}$, $T_{vj} = 25\text{ °C}$, (tested after 1ms pulse at $V_{GS} = +20\text{ V}$)		3.05	3.95	4.75	V
Total gate charge	Q_G	$V_{DD} = 750\text{ V}$, $V_{GS} = -3...18\text{ V}$, $T_{vj} = 25\text{ °C}$			2.2		μC
Internal gate resistor	R_{Gint}	$T_{vj} = 25\text{ °C}$			0.17		Ω

(table continues...)

Table 5 (continued) Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Input capacitance	C_{ISS}	$f = 100 \text{ kHz}$, $V_{DS} = 750 \text{ V}$, $V_{GS} = 0 \text{ V}$, $T_{vj} = 25 \text{ °C}$		74.1		nF
Output capacitance	C_{OSS}	$f = 100 \text{ kHz}$, $V_{DS} = 750 \text{ V}$, $V_{GS} = 0 \text{ V}$, $T_{vj} = 25 \text{ °C}$		2.6		nF
Reverse transfer capacitance	C_{rss}	$f = 100 \text{ kHz}$, $V_{DS} = 750 \text{ V}$, $V_{GS} = 0 \text{ V}$, $T_{vj} = 25 \text{ °C}$		0.2		nF
C_{OSS} stored energy	E_{OSS}	$V_{DS} = 750 \text{ V}$, $V_{GS} = -3/18 \text{ V}$, $T_{vj} = 25 \text{ °C}$		974		μJ
Drain-source leakage current	I_{DSS}	$V_{DS} = 1400 \text{ V}$, $V_{GS} = -3 \text{ V}$, $T_{vj} = 25 \text{ °C}$			900	μA
Gate-source leakage current	I_{GSS}	$V_{DS} = 0 \text{ V}$, $T_{vj} = 25 \text{ °C}$, $V_{GS} = 20 \text{ V}$			400	nA
Turn-on delay time (inductive load)	$t_{d\ on}$	$I_D = 850 \text{ A}$, $R_{Gon} = 4.7 \text{ } \Omega$, $V_{DD} = 750 \text{ V}$, $V_{GS} = -3/18 \text{ V}$, $t_{dead} = 1000 \text{ ns}$, $0.1 V_{GS}$ to $0.1 I_D$	$T_{vj} = 25 \text{ °C}$	87		ns
			$T_{vj} = 125 \text{ °C}$	73		
			$T_{vj} = 175 \text{ °C}$	63		
Rise time (inductive load)	t_r	$I_D = 850 \text{ A}$, $R_{Gon} = 4.7 \text{ } \Omega$, $V_{DD} = 750 \text{ V}$, $V_{GS} = -3/18 \text{ V}$, $t_{dead} = 1000 \text{ ns}$, $0.1 I_D$ to $0.9 I_D$	$T_{vj} = 25 \text{ °C}$	85		ns
			$T_{vj} = 125 \text{ °C}$	79		
			$T_{vj} = 175 \text{ °C}$	77		
Turn-off delay time (inductive load)	$t_{d\ off}$	$I_D = 850 \text{ A}$, $R_{Goff} = 1 \text{ } \Omega$, $V_{DD} = 750 \text{ V}$, $V_{GS} = -3/18 \text{ V}$, $0.9 V_{GS}$ to $0.9 I_D$	$T_{vj} = 25 \text{ °C}$	188		ns
			$T_{vj} = 125 \text{ °C}$	201		
			$T_{vj} = 175 \text{ °C}$	201		
Fall time (inductive load)	t_f	$I_D = 850 \text{ A}$, $R_{Goff} = 1 \text{ } \Omega$, $V_{DD} = 750 \text{ V}$, $V_{GS} = -3/18 \text{ V}$, $0.9 I_D$ to $0.1 I_D$	$T_{vj} = 25 \text{ °C}$	40		ns
			$T_{vj} = 125 \text{ °C}$	40		
			$T_{vj} = 175 \text{ °C}$	42		
Turn-on energy loss per pulse	E_{on}	$I_D = 850 \text{ A}$, $V_{DD} = 750 \text{ V}$, $L_\sigma = 8 \text{ nH}$, $V_{GS} = -3/18 \text{ V}$, $R_{Gon} = 4.7 \text{ } \Omega$, $di/dt = 12.4 \text{ kA}/\mu\text{s}$ ($T_{vj} = 175 \text{ °C}$), $t_{dead} = 1000 \text{ ns}$	$T_{vj} = 25 \text{ °C}$	57.1		mJ
			$T_{vj} = 125 \text{ °C}$	59.7		
			$T_{vj} = 175 \text{ °C}$	62.7		
Turn-on energy loss per pulse, optimized	$E_{on,o}$	$I_D = 850 \text{ A}$, $V_{DD} = 750 \text{ V}$, $L_\sigma = 8 \text{ nH}$, $V_{GS} = -3/18 \text{ V}$, $R_{Gon,o} = 3.9 \text{ } \Omega$, $di/dt = 14.5 \text{ kA}/\mu\text{s}$ ($T_{vj} = 175 \text{ °C}$), $t_{dead} = 100 \text{ ns}$	$T_{vj} = 25 \text{ °C}$	44.4		mJ
			$T_{vj} = 125 \text{ °C}$	42.4		
			$T_{vj} = 175 \text{ °C}$	43.1		
Turn-off energy loss per pulse	E_{off}	$I_D = 850 \text{ A}$, $V_{DD} = 750 \text{ V}$, $L_\sigma = 8 \text{ nH}$, $V_{GS} = -3/18 \text{ V}$, $R_{Goff} = 1 \text{ } \Omega$, $dv/dt = 17.6 \text{ kV}/\mu\text{s}$ ($T_{vj} = 175 \text{ °C}$)	$T_{vj} = 25 \text{ °C}$	26.6		mJ
			$T_{vj} = 125 \text{ °C}$	26.6		
			$T_{vj} = 175 \text{ °C}$	26.1		

(table continues...)

3 Body diode (MOSFET)

Table 5 (continued) Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
SC data	I_{SC}	$V_{GS} = -3/18\text{ V}$, $V_{DD} = 750\text{ V}$, $t_P \leq 1.2\text{ }\mu\text{s}$, $T_{vj} = 175\text{ }^\circ\text{C}$ $V_{DSmax} = V_{DSS} - L_{SDS} \cdot di/dt^{1)}$		10500		A
SC data	I_{SC}	$V_{GS} = -3/15\text{ V}$, $V_{DD} = 750\text{ V}$, $t_P \leq 2\text{ }\mu\text{s}$, $T_{vj} = 175\text{ }^\circ\text{C}$ $V_{DSmax} = V_{DSS} - L_{SDS} \cdot di/dt^{1)}$		8700		A
Thermal resistance, junction to cooling fluid	R_{thJF}	per MOSFET, $\Delta V/\Delta t = 10\text{ dm}^3/\text{min}$, cooling fluid = 50% water / 50% ethylenglycol, $T_F = 60\text{ }^\circ\text{C}$		58.5		K/kW
Standard deviation of thermal resistance, junction to cooling fluid	$\sigma_{Rth,JF}$	$\Delta V/\Delta t = 10\text{ dm}^3/\text{min}$, cooling fluid = 50% water / 50% ethylenglycol, $T_F = 60\text{ }^\circ\text{C}$		0.48		K/kW
Temperature under switching conditions	$T_{vj\text{ op}}$		-40		175	$^\circ\text{C}$

1) Recommended short-circuit turn-off with $-di/dt_{90\%-10\%} \geq 19\text{ kA}/\mu\text{s}$.

Note: The selection of positive and negative gate-source voltages impacts losses and the long-term behavior of the MOSFET and body diode. The design guidelines described in Application Note AN-2025-02 "CoolSiC™ MOSFET M2 in Easy modules" must be considered to ensure sound operation of the device over the planned lifetime.

3 Body diode (MOSFET)

Table 6 Maximum rated values

Parameter	Symbol	Note or test condition	Values	Unit
DC body diode forward current	I_{SD}	$T_{vj} = 175\text{ }^\circ\text{C}$, $V_{GS} = -3\text{ V}$, $T_F = 65\text{ }^\circ\text{C}$	450	A
Pulsed body diode current	$I_{SD\text{ pulse}}$		1700	A
I^2t - value	I^2t	$V_{DS} = 0\text{ V}$, $V_{GS} = -3\text{ V}$, $t_P = 10\text{ ms}$, $T_{vj} = 175\text{ }^\circ\text{C}$	24.5	kA^2s

Table 7 Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	V_{SD}	$I_{SD} = 850\text{ A}$, $V_{GS} = -3\text{ V}$		4.47	5.65	V
				4.06		
				3.93		

(table continues...)

4 Temperature Sensor

Table 7 (continued) Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Peak reverse recovery current	I_{rrm}	$I_{SD} = 850 \text{ A}$, $di_s/dt = 13 \text{ kA}/\mu\text{s}$ ($T_{vj} = 175 \text{ }^\circ\text{C}$), $V_{DD} = 750 \text{ V}$, $V_{GS} = -3 \text{ V}$, $t_{dead} = 1000 \text{ ns}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	235		A
			$T_{vj} = 125 \text{ }^\circ\text{C}$	417		
			$T_{vj} = 175 \text{ }^\circ\text{C}$	513		
Recovered charge	Q_{rr}	$I_{SD} = 850 \text{ A}$, $di_s/dt = 13 \text{ kA}/\mu\text{s}$ ($T_{vj} = 175 \text{ }^\circ\text{C}$), $V_{DD} = 750 \text{ V}$, $V_{GS} = -3 \text{ V}$, $t_{dead} = 1000 \text{ ns}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	20.2		μC
			$T_{vj} = 125 \text{ }^\circ\text{C}$	32		
			$T_{vj} = 175 \text{ }^\circ\text{C}$	38.4		
Reverse recovery energy	E_{rec}	$I_{SD} = 850 \text{ A}$, $di_s/dt = 13 \text{ kA}/\mu\text{s}$ ($T_{vj} = 175 \text{ }^\circ\text{C}$), $V_{DD} = 750 \text{ V}$, $V_{GS} = -3 \text{ V}$, $t_{dead} = 1000 \text{ ns}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	1.6		mJ
			$T_{vj} = 125 \text{ }^\circ\text{C}$	5.4		
			$T_{vj} = 175 \text{ }^\circ\text{C}$	8.2		
Reverse recovery energy, optimized	$E_{rec,o}$	$I_{SD} = 50 \text{ A}$, $di_s/dt = 14.8 \text{ kA}/\mu\text{s}$ ($T_{vj} = 175 \text{ }^\circ\text{C}$), $V_{DD} = 750 \text{ V}$, $V_{GS} = -3 \text{ V}$, $t_{dead} = 100 \text{ ns}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	1.6		mJ
			$T_{vj} = 125 \text{ }^\circ\text{C}$	3.3		
			$T_{vj} = 175 \text{ }^\circ\text{C}$	5.1		

4 Temperature Sensor

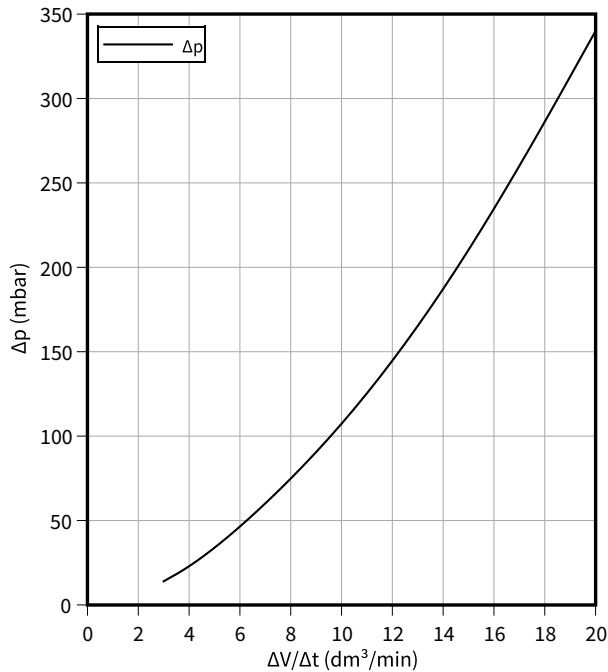
Table 8 Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Transient sense current	I_{TS}				10	mA
Forward voltage	V_{TS}	$I_{TS} = 0.2 \text{ mA}$, $T_{vj} = 25 \text{ }^\circ\text{C}$	2.574	2.624	2.674	V
		$I_{TS} = 0.2 \text{ mA}$, $T_{vj} = 85 \text{ }^\circ\text{C}$	2.169	2.234	2.299	

5 Characteristics diagrams

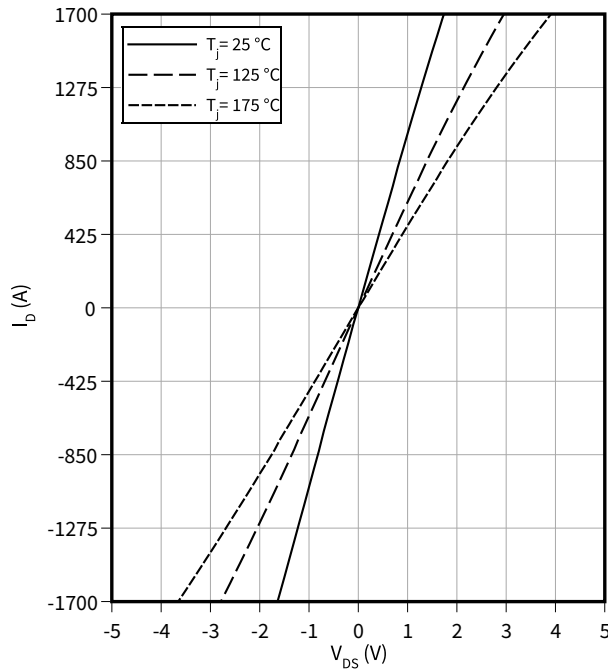
Pressure drop in cooling circuit, Package

$\Delta p = f(\Delta V/\Delta t)$
 $T_F = 60\text{ }^{\circ}\text{C}$, 50% water / 50% ethylenglycol



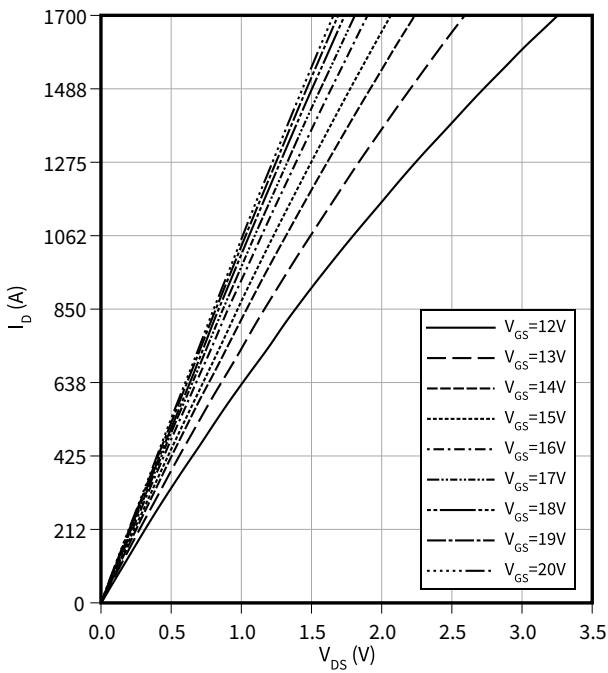
Output characteristic (typical), MOSFET

$I_D = f(V_{DS})$
 $V_{GS} = 18\text{ V}$



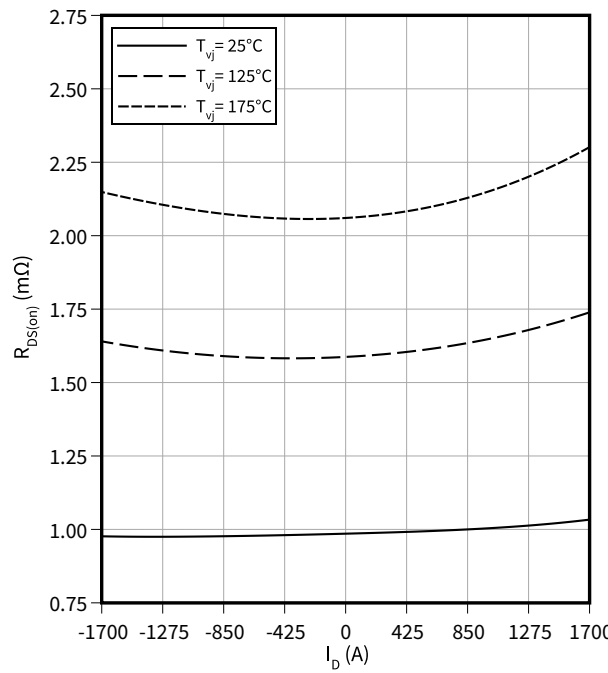
Output characteristic field (typical), MOSFET

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



Drain source on-resistance (typical), MOSFET

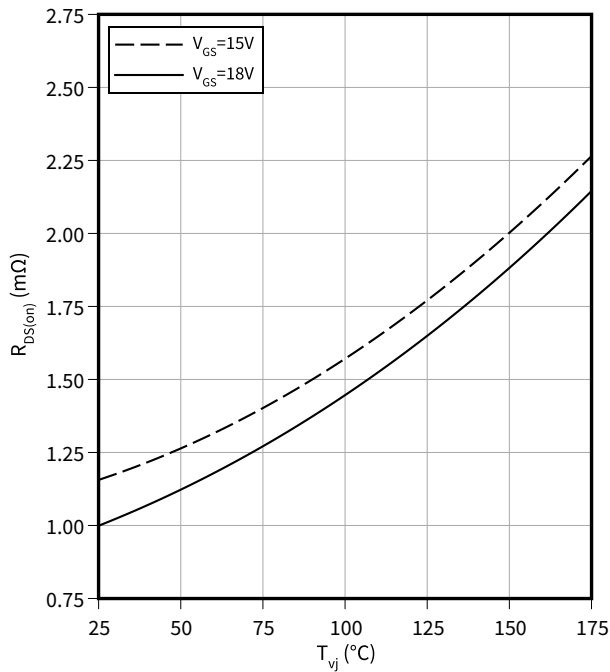
$R_{DS(on)} = f(I_D)$
 $V_{GS} = 18\text{ V}$



5 Characteristics diagrams

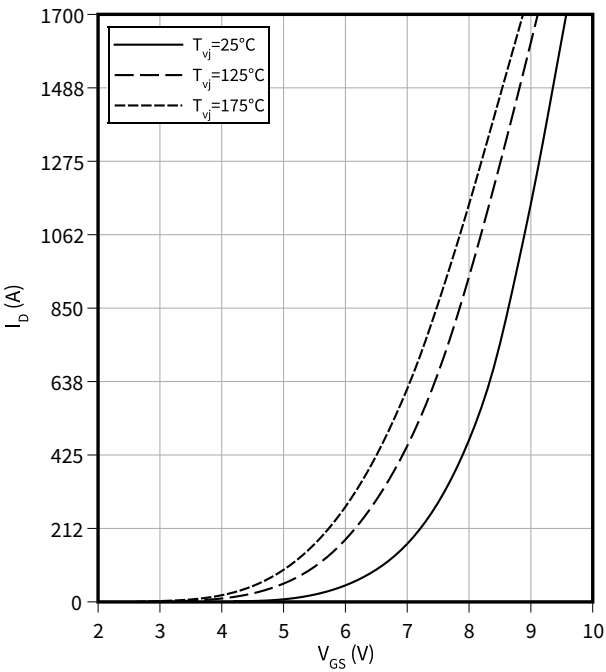
Drain source on-resistance (typical), MOSFET

$R_{DS(on)} = f(T_{vj})$
 $I_D = 850\text{ A}$



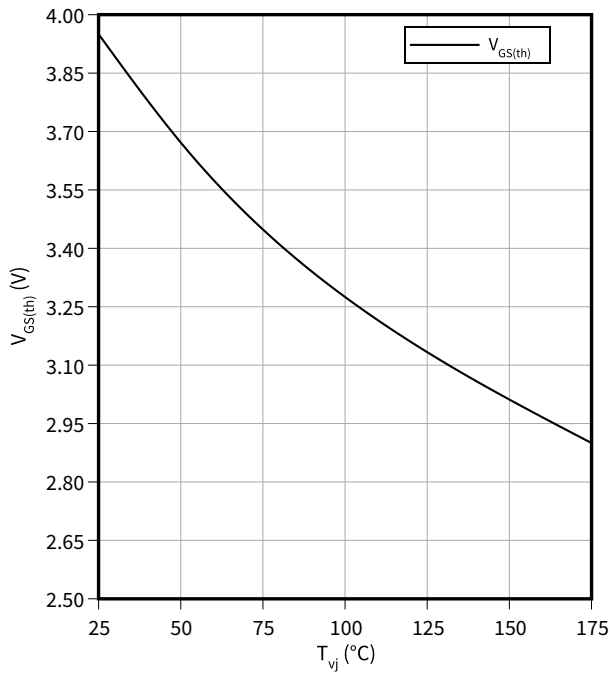
Transfer characteristic (typical), MOSFET

$I_D = f(V_{GS})$
 $V_{DS} = 20\text{ V}$



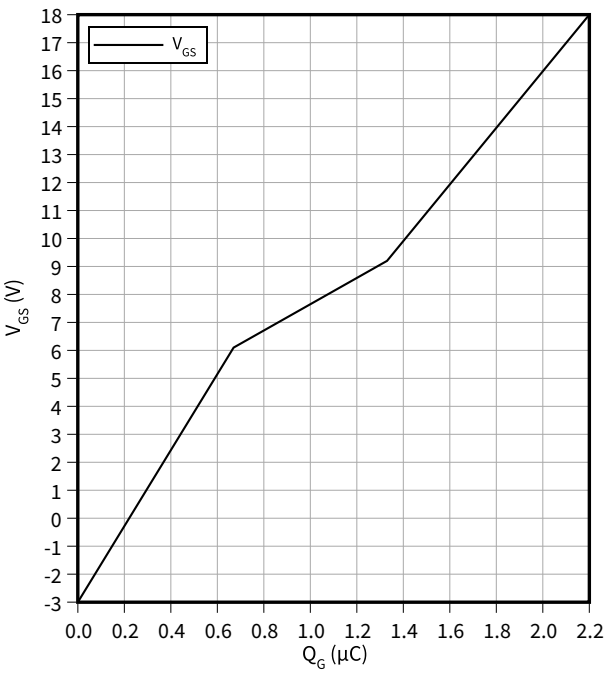
Gate-source threshold voltage (typical), MOSFET

$V_{GS(th)} = f(T_{vj})$
 $I_D = 310\text{ mA}$, $V_{GS} = V_{DS}$



Gate charge characteristic (typical), MOSFET

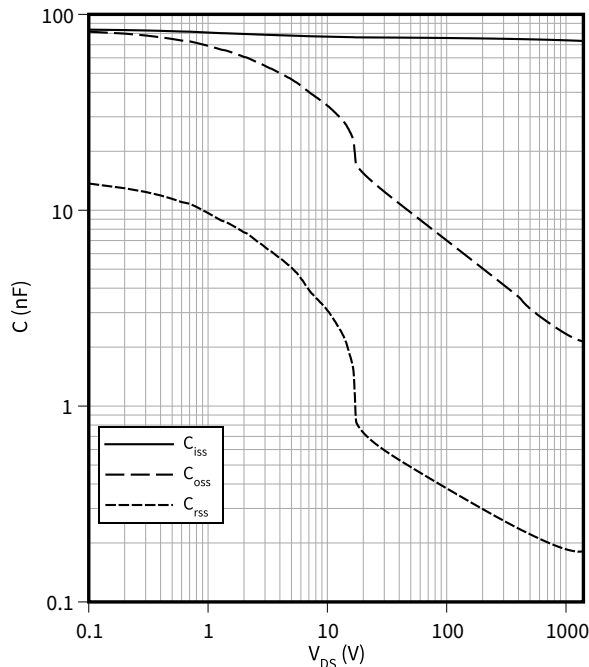
$V_{GS} = f(Q_G)$
 $I_D = 850\text{ A}$, $T_{vj} = 25\text{ }^{\circ}C$



5 Characteristics diagrams

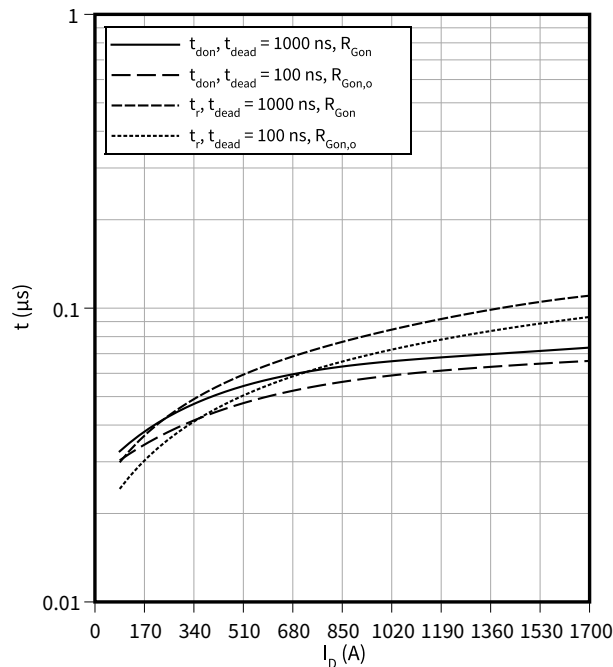
Capacity characteristic (typical), MOSFET

$C = f(V_{DS})$
 $f = 100\text{ kHz}$, $T_{vj} = 25\text{ °C}$, $V_{GS} = 0\text{ V}$



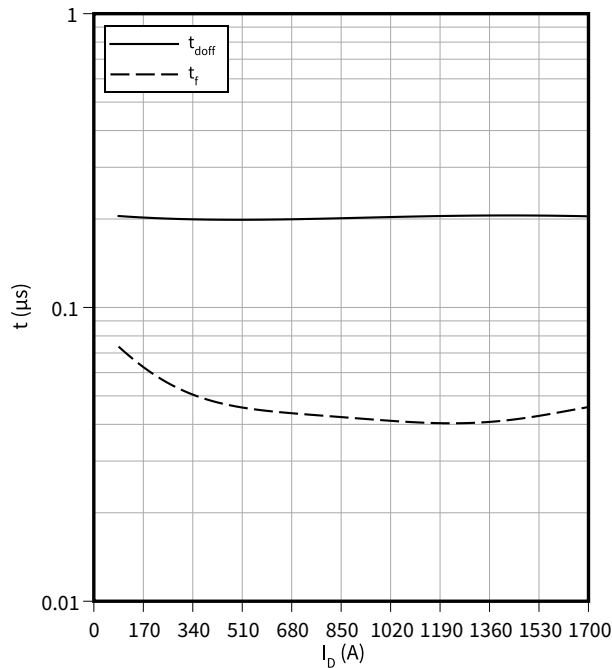
Switching times (typical), MOSFET

$t = f(I_D)$
 $V_{DD} = 750\text{ V}$, $R_{Gon} = 4.7\text{ }\Omega$, $R_{Gon,o} = 3.9\text{ }\Omega$, $T_{vj} = 175\text{ °C}$,
 $V_{GS} = -3/18\text{ V}$



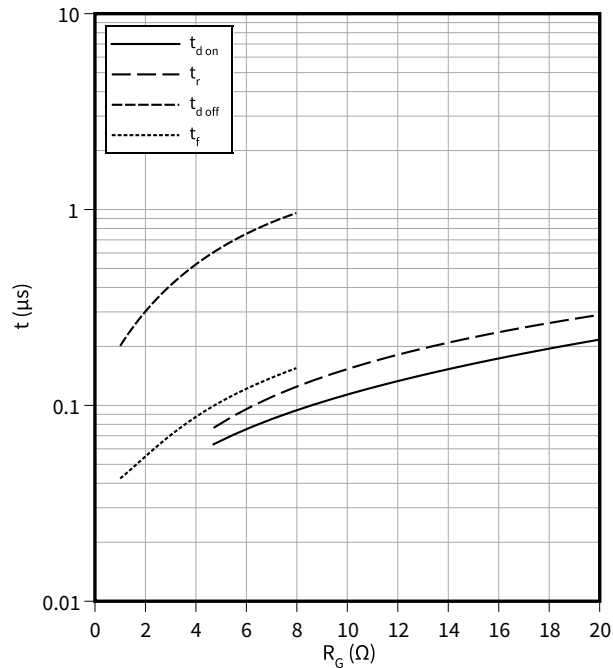
Switching times (typical), MOSFET

$t = f(I_D)$
 $R_{Goff} = 1\text{ }\Omega$, $V_{DD} = 750\text{ V}$, $T_{vj} = 175\text{ °C}$, $V_{GS} = -3/18\text{ V}$



Switching times (typical), MOSFET

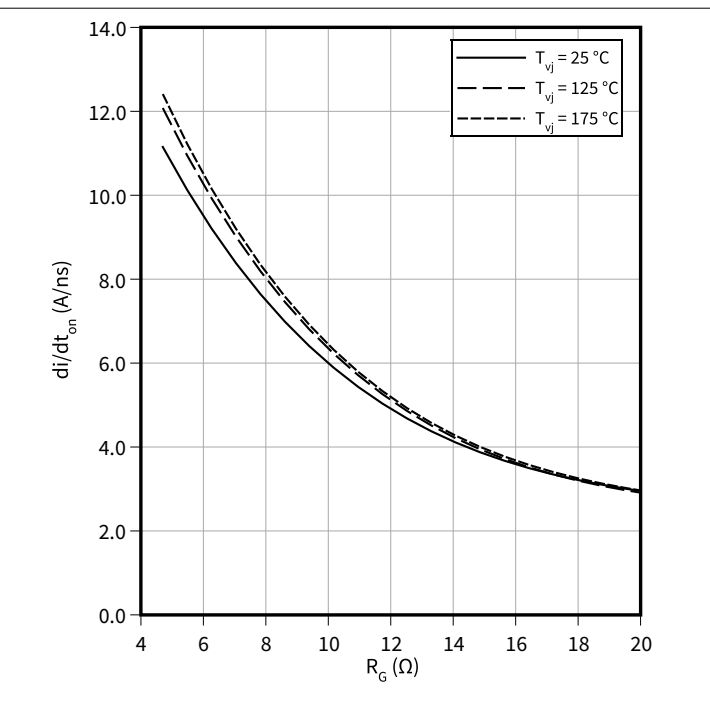
$t = f(R_G)$
 $V_{DD} = 750\text{ V}$, $t_{dead} = 1000\text{ ns}$, $I_D = 850\text{ A}$, $T_{vj} = 175\text{ °C}$,
 $V_{GS} = -3/18\text{ V}$



5 Characteristics diagrams

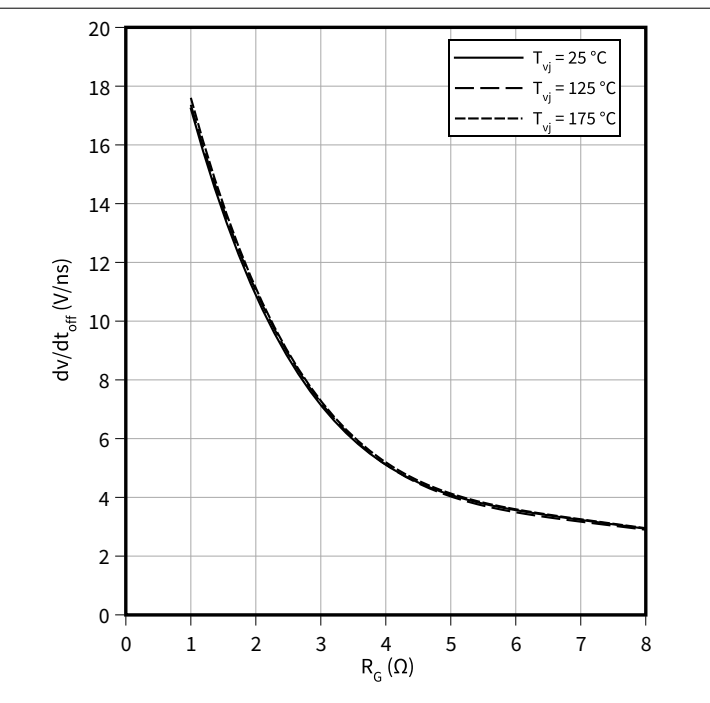
Current slope (typical), MOSFET

$di/dt_{on} = f(R_G)$
 $V_{DD} = 750\text{ V}$, $t_{dead} = 1000\text{ ns}$, $I_D = 850\text{ A}$, $V_{GS} = -3/18\text{ V}$



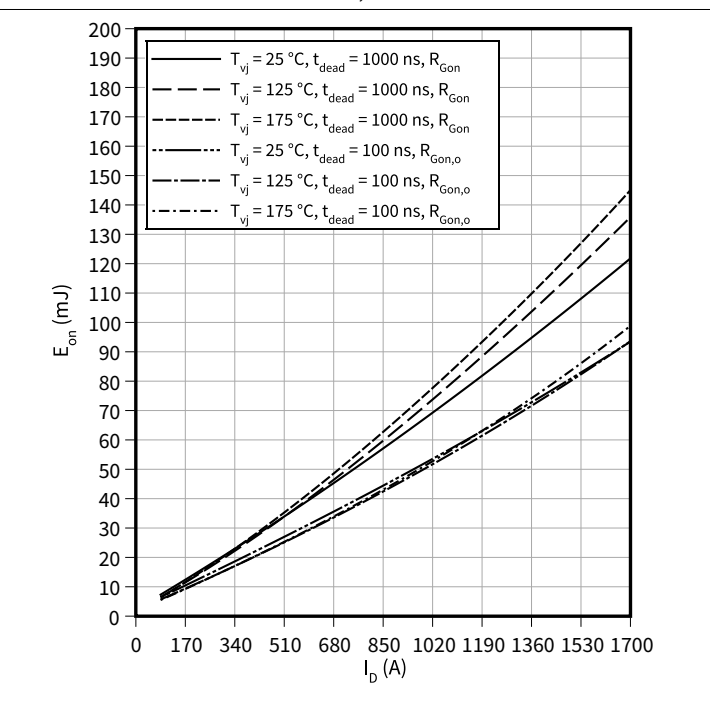
Voltage slope (typical), MOSFET

$dv/dt_{off} = f(R_G)$
 $V_{DD} = 750\text{ V}$, $I_D = 850\text{ A}$, $V_{GS} = -3/18\text{ V}$



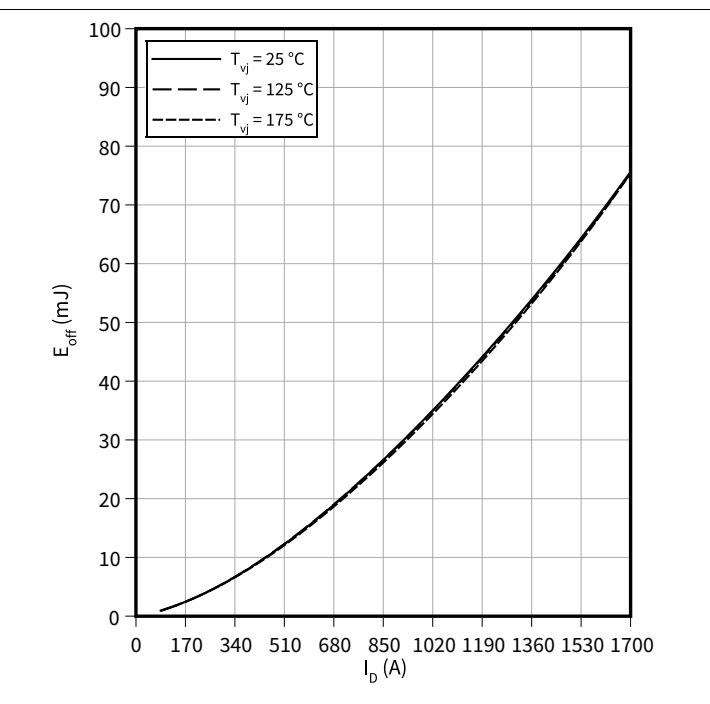
Switching losses (typical), MOSFET

$E_{on} = f(I_D)$
 $V_{DD} = 750\text{ V}$, $R_{Gon} = 4.7\text{ Ω}$, $R_{Gon,o} = 3.9\text{ Ω}$, $V_{GS} = -3/18\text{ V}$



Switching losses (typical), MOSFET

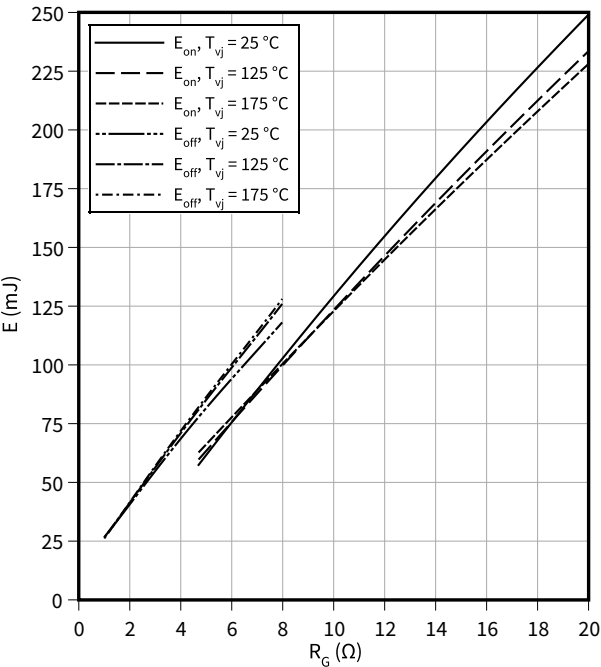
$E_{off} = f(I_D)$
 $R_{Goff} = 1\text{ Ω}$, $V_{DD} = 750\text{ V}$, $V_{GS} = -3/18\text{ V}$



5 Characteristics diagrams

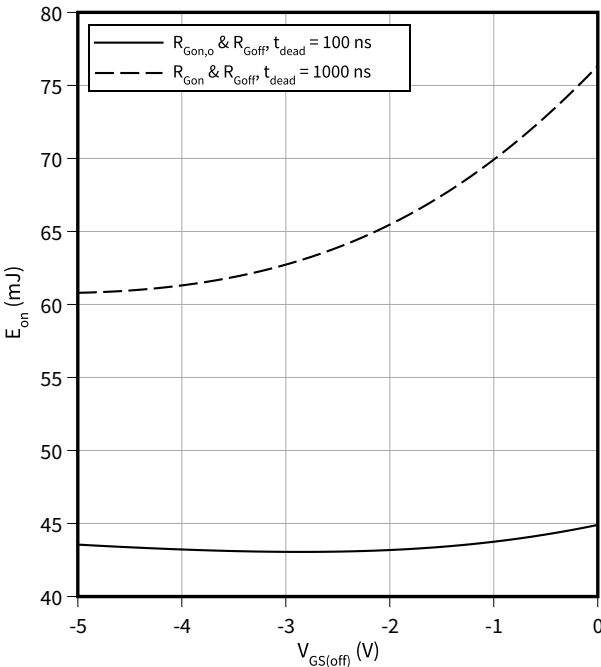
Switching losses (typical), MOSFET

$E = f(R_G)$
 $V_{DD} = 750\text{ V}$, $t_{dead} = 1000\text{ ns}$, $I_D = 850\text{ A}$, $V_{GS} = -3/18\text{ V}$



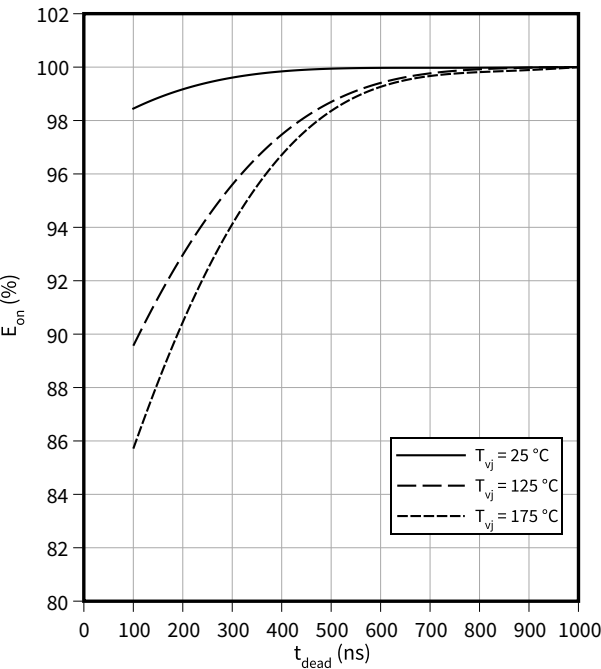
Switching losses (typical), MOSFET

$E_{on} = f(V_{GS(off)})$
 $R_{Goff} = 1\text{ }\Omega$, $V_{DD} = 750\text{ V}$, $R_{Gon} = 4.7\text{ }\Omega$, $V_{GS(on)} = 18\text{ V}$,
 $I_D = 850\text{ A}$, $R_{Gon,o} = 3.9\text{ }\Omega$, $T_{vj} = 175\text{ }^\circ\text{C}$



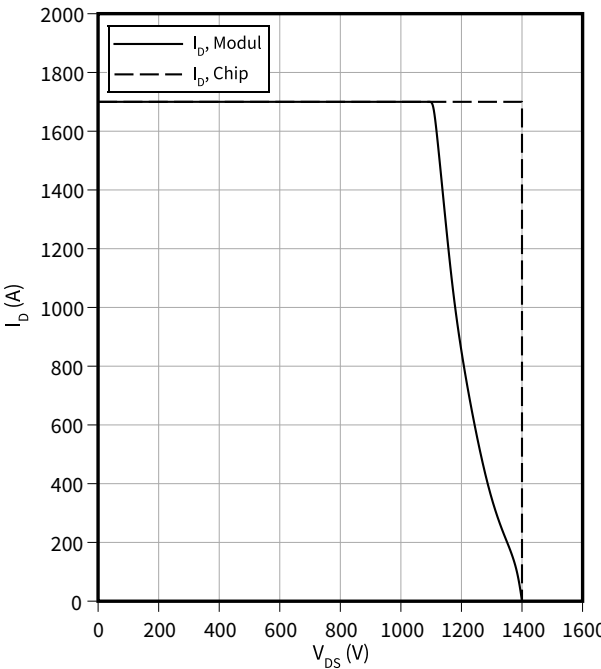
Switching losses (typical), MOSFET

$E_{on} = f(t_{dead})$
 $R_{Gon} = 4.7\text{ }\Omega$, $I_D = 850\text{ A}$, $V_{DD} = 750\text{ V}$, $V_{GS} = -3/18\text{ V}$



Reverse bias safe operating area (RBSOA), MOSFET

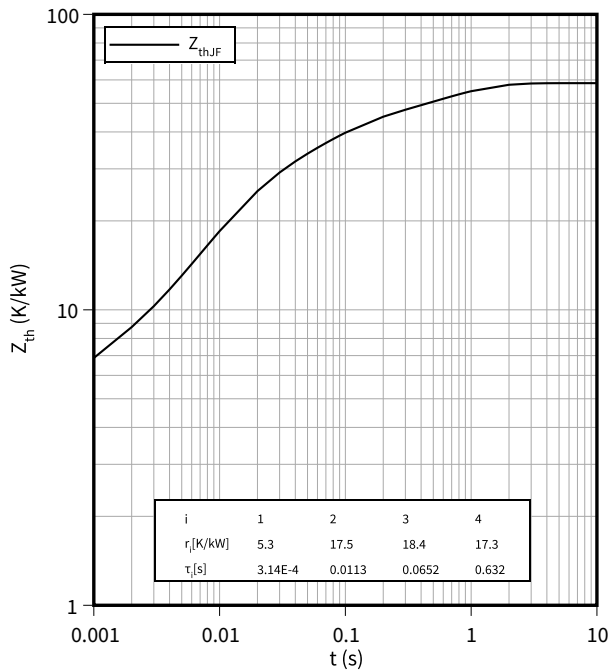
$I_D = f(V_{DS})$
 $R_{Goff} = 1\text{ }\Omega$, $T_{vj} = 175\text{ }^\circ\text{C}$, $V_{GS} = -3/18\text{ V}$



5 Characteristics diagrams

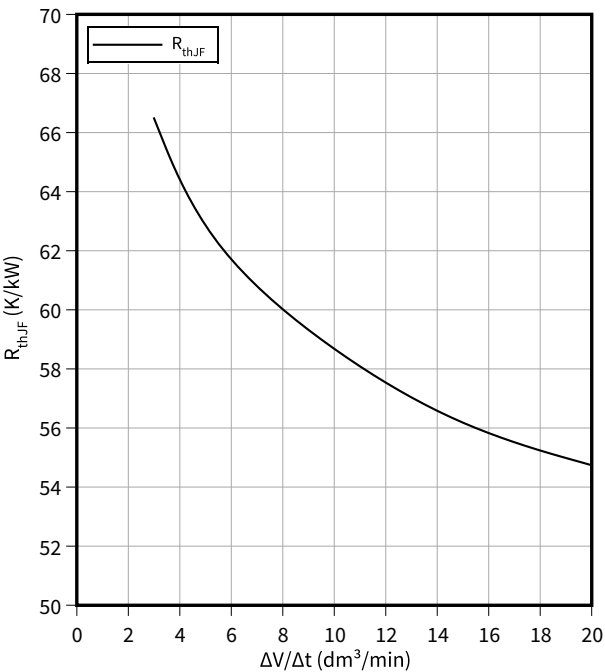
Transient thermal impedance, MOSFET

$Z_{th} = f(t)$



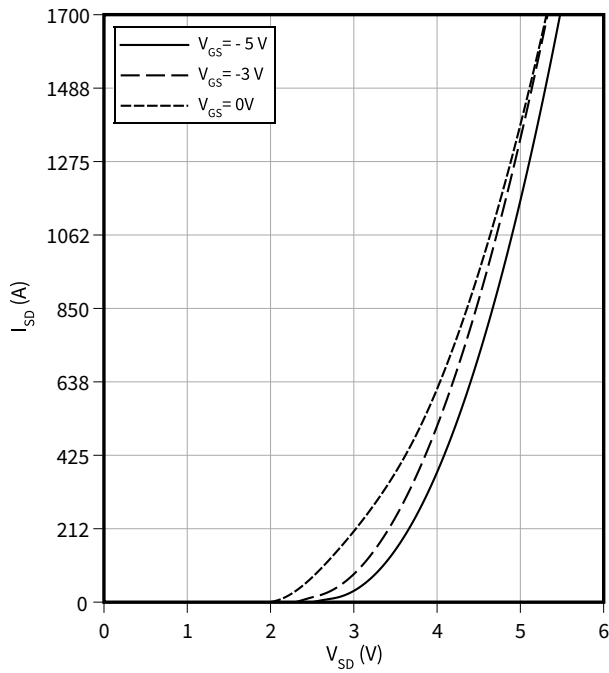
Thermal resistance, MOSFET

$R_{thJF} = f(\Delta V/\Delta t)$
 $T_F = 60\text{ }^\circ\text{C}$, 50% water / 50% ethylene glycol



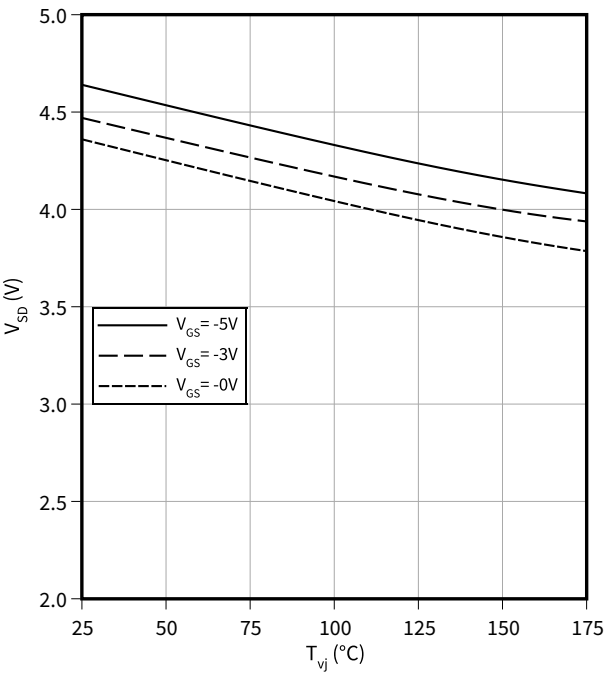
Forward characteristic body diode (typical), MOSFET

$I_{SD} = f(V_{SD})$
 $T_{vj} = 25\text{ }^\circ\text{C}$



Forward voltage of body diode (typical), MOSFET

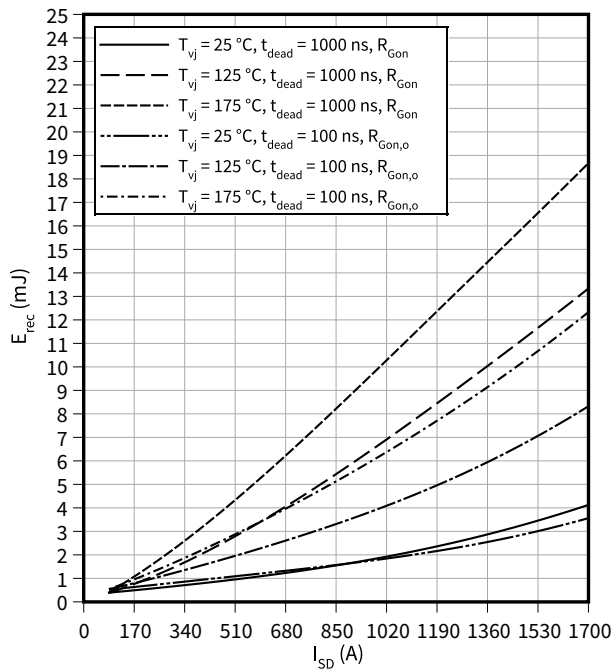
$V_{SD} = f(T_{vj})$
 $I_{SD} = 850\text{ A}$



5 Characteristics diagrams

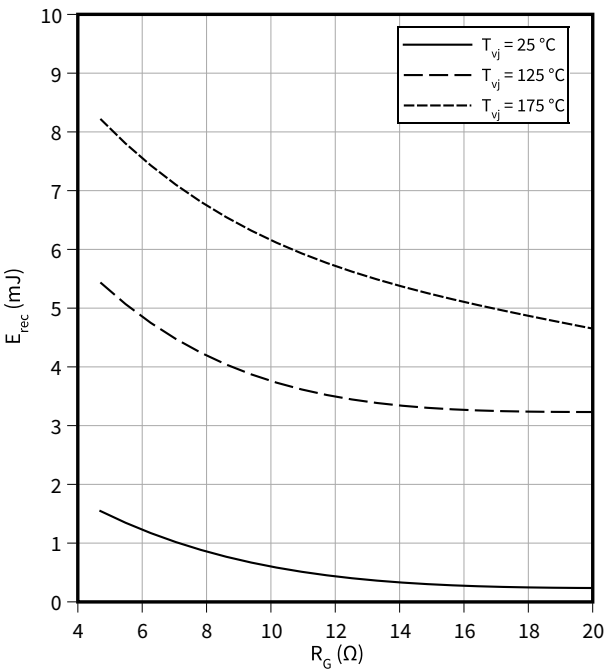
Switching losses body diode (typical), MOSFET

$E_{rec} = f(I_{SD})$
 $R_{Gon} = 4.7\ \Omega$, $R_{Gon,o} = 3.9\ \Omega$, $V_{DD} = 750\ V$



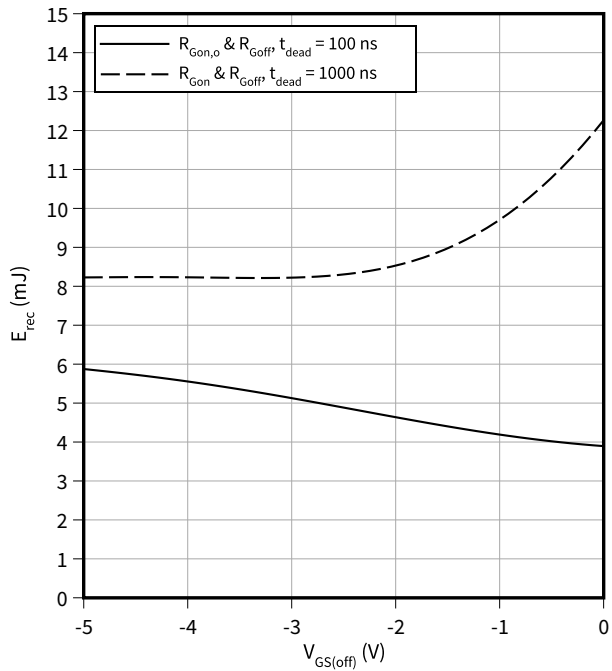
Switching losses body diode (typical), MOSFET

$E_{rec} = f(R_G)$
 $t_{dead} = 1000\ ns$, $I_{SD} = 850\ A$, $V_{DD} = 750\ V$



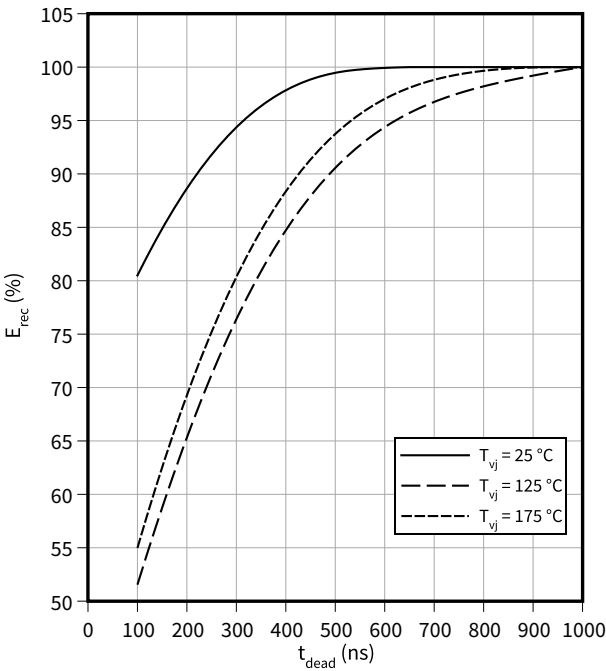
Switching losses body diode (typical), MOSFET

$E_{rec} = f(V_{GS(off)})$
 $R_{Goff} = 1\ \Omega$, $R_{Gon} = 4.7\ \Omega$, $V_{GS(on)} = 18\ V$, $I_{SD} = 850\ A$,
 $R_{Gon,o} = 3.9\ \Omega$, $V_{DD} = 750\ V$, $T_{vj} = 175\ ^\circ C$



Switching losses body diode (typical), MOSFET

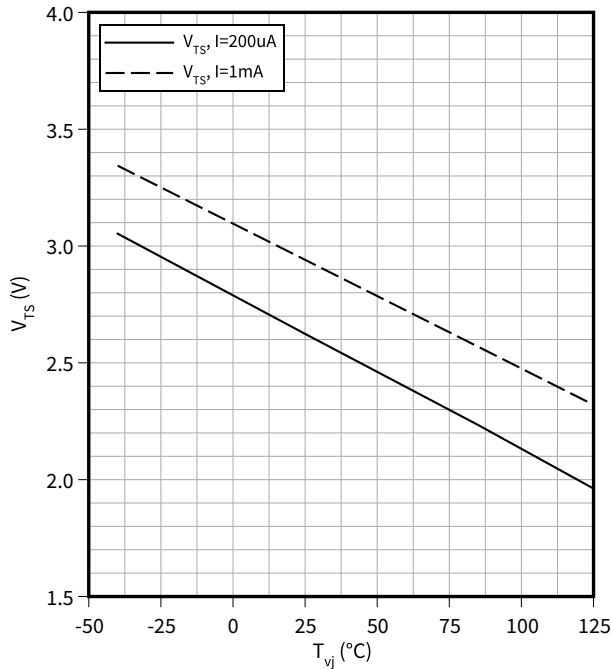
$E_{rec} = f(t_{dead})$
 $R_{Gon} = 4.7\ \Omega$, $I_D = 850\ A$, $V_{DD} = 750\ V$, $V_{GS} = -3/18\ V$



5 Characteristics diagrams

Temperature characteristic (typical), Temperature Sensor

$V_{TS} = f(T_{vj})$



6 Circuit diagram

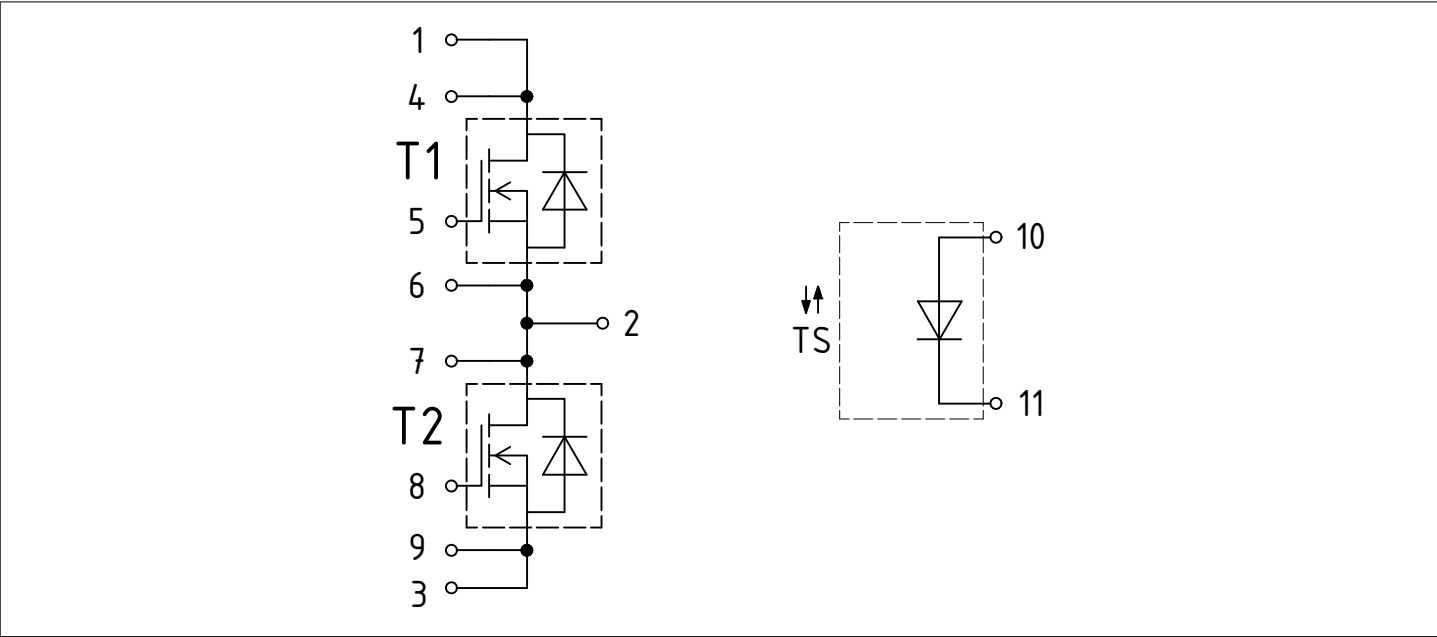


Figure 1

7 Package outlines

Figure 2

8 Module label code

Module label code			
Code format	Data Matrix		Barcode Code128
Encoding	ASCII text		Code Set A
Symbol size	16x16		23 digits
Standard	IEC24720 and IEC16022		IEC8859-1
Code content	<i>Content</i>	<i>Digit</i>	<i>Example</i>
	Module serial number	1 – 5	71549
	Module material number	6 - 11	142846
	Production order number	12 - 19	55054991
	Date code (production year)	20 – 21	15
	Date code (production week)	22 – 23	30
Example			
			
71549142846550549911530		71549142846550549911530	

Figure 3



Revision history

Revision history

Document revision	Date of release	Description of changes
0.10	2024-07-12	Target datasheet
0.20	2025-09-05	Preliminary datasheet
0.21	2026-01-20	Preliminary datasheet - update
1.00	2026-06-03	Final datasheet
1.01	2026-10-09	General update

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