

## Preliminary datasheet

### EasyPACK™ module with CoolSiC™ Trench MOSFET and PressFIT / NTC

#### Features

- Electrical features
  - $V_{DS} = 1200\text{ V}$
  - $I_{DN} = 25\text{ A}$  /  $I_{DRM} = 50\text{ A}$
  - High current density
  - Low inductive design
- Mechanical features
  - PressFIT contact technology
  - Integrated NTC temperature sensor
  - Rugged mounting due to integrated mounting clamps



Typical appearance

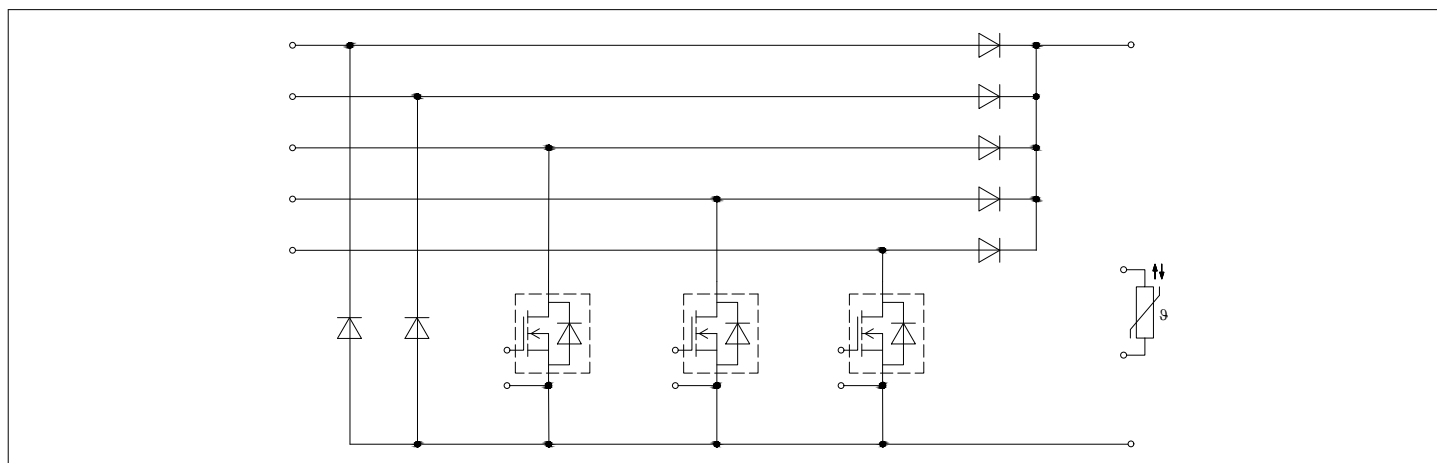
#### Potential applications

- Solar applications

#### Product validation

- Qualified for industrial applications according to the relevant tests of IEC 60747, 60749 and 60068

#### Description



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## 1 Package

**Table 1** Insulation coordination

Parameter	Symbol	Note or test condition	Values	Unit
Isolation test voltage	$V_{ISOL}$	RMS, $f = 50 \text{ Hz}$ , $t = 1 \text{ min}$	3.0	kV
Internal isolation		basic insulation (class 1, IEC 61140)	$Al_2O_3$	
Comparative tracking index	$CTI$		> 200	
Relative thermal index (electrical)	$RTI$	housing	140	°C

**Table 2** Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Stray inductance module	$L_{sCE}$			10		nH
Module lead resistance, terminals - chip	$R_{AA'+CC'}$	$T_H = 25 \text{ °C}$ , per switch		3.2		mΩ
Module lead resistance, terminals - chip	$R_{CC'+EE'}$	$T_H = 25 \text{ °C}$ , per switch		3.2		mΩ
Storage temperature	$T_{stg}$		-40		125	°C
Mounting force per clamp	$F$		20		50	N
Weight	$G$			24		g

Note: The current under continuous operation is limited to 25 A rms per connector pin.

## 2 MOSFET

**Table 3** Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Drain-source voltage	$V_{DSS}$		$T_{vj} = 25 \text{ °C}$	1200	V
Continuous DC drain current	$I_{DDC}$	$T_{vj} = 175 \text{ °C}$ , $V_{GS} = 18 \text{ V}$	$T_H = 70 \text{ °C}$	25	A
Repetitive peak drain current	$I_{DRM}$	verified by design, $t_p$ limited by $T_{vjmax}$		50	A
Gate-source voltage, max. transient voltage	$V_{GS}$	$D < 0.01$		-10/23	V
Gate-source voltage, max. static voltage	$V_{GS}$			-7/20	V

**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...0	V

**Table 5 Characteristic values**

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Drain-source on-resistance	$R_{DS(on)}$	$I_D = 25\text{ A}$		$V_{GS} = 18\text{ V}, T_{vj} = 25\text{ °C}$	32.3	mΩ
				$V_{GS} = 18\text{ V}, T_{vj} = 125\text{ °C}$	52.2	
				$V_{GS} = 18\text{ V}, T_{vj} = 175\text{ °C}$	69.4	
				$V_{GS} = 15\text{ V}, T_{vj} = 25\text{ °C}$	38.8	
Gate threshold voltage	$V_{GS(th)}$	$I_D = 10\text{ mA}, V_{DS} = V_{GS}, T_{vj} = 25\text{ °C},$ (tested after 1ms pulse at $V_{GS} = +20\text{ V}$ )	3.45	4.3	5.15	V
Total gate charge	$Q_G$	$V_{DD} = 800\text{ V}, V_{GS} = -3/18\text{ V}$		0.074		μC
Internal gate resistor	$R_{Gint}$	$T_{vj} = 25\text{ °C}$		8.2		Ω
Input capacitance	$C_{ISS}$	$f = 100\text{ kHz}, V_{DS} = 800\text{ V}, V_{GS} = 0\text{ V}, T_{vj} = 25\text{ °C}$		2.2		nF
Output capacitance	$C_{OSS}$	$f = 100\text{ kHz}, V_{DS} = 800\text{ V}, V_{GS} = 0\text{ V}, T_{vj} = 25\text{ °C}$		0.105		nF
Reverse transfer capacitance	$C_{RSS}$	$f = 100\text{ kHz}, V_{DS} = 800\text{ V}, V_{GS} = 0\text{ V}, T_{vj} = 25\text{ °C}$		0.007		nF
$C_{OSS}$ stored energy	$E_{OSS}$	$V_{DS} = 800\text{ V}, V_{GS} = -3/18\text{ V}, T_{vj} = 25\text{ °C}$		43		μJ
Drain-source leakage current	$I_{DSS}$	$V_{DS} = 1200\text{ V}, V_{GS} = -3\text{ V}, T_{vj} = 25\text{ °C}$		0.015	120	μA
Gate-source leakage current	$I_{GSS}$	$V_{DS} = 0\text{ V}, T_{vj} = 25\text{ °C}$			400	nA
Turn-on delay time (inductive load)	$t_{d on}$	$I_D = 25\text{ A}, R_{Gon} = 5.6\text{ Ω}, V_{DD} = 600\text{ V}, V_{GS} = -3/18\text{ V}$	$T_{vj} = 25\text{ °C}$	32		ns
			$T_{vj} = 125\text{ °C}$	32		
			$T_{vj} = 175\text{ °C}$	32		
Rise time (inductive load)	$t_r$	$I_D = 25\text{ A}, R_{Gon} = 5.6\text{ Ω}, V_{DD} = 600\text{ V}, V_{GS} = -3/18\text{ V}$	$T_{vj} = 25\text{ °C}$	26		ns
			$T_{vj} = 125\text{ °C}$	26		
			$T_{vj} = 175\text{ °C}$	26		

(table continues...)

**Table 5** (continued) **Characteristic values**

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Turn-off delay time (inductive load)	$t_{d\ off}$	$I_D = 25\ A, R_{Goff} = 1.5\ \Omega, V_{DD} = 600\ V, V_{GS} = -3/18\ V$	$T_{vj} = 25\ ^\circ C$	48		ns
			$T_{vj} = 125\ ^\circ C$	53		
			$T_{vj} = 175\ ^\circ C$	55		
Fall time (inductive load)	$t_f$	$I_D = 25\ A, R_{Goff} = 1.5\ \Omega, V_{DD} = 600\ V, V_{GS} = -3/18\ V$	$T_{vj} = 25\ ^\circ C$	11		ns
			$T_{vj} = 125\ ^\circ C$	11		
			$T_{vj} = 175\ ^\circ C$	11		
Turn-on energy loss per pulse	$E_{on}$	$I_D = 25\ A, V_{DD} = 600\ V, L_\sigma = 35\ nH, V_{GS} = -3/18\ V, R_{Gon} = 5.6\ \Omega, di/dt = 2.3\ kA/\mu s (T_{vj} = 175\ ^\circ C)$	$T_{vj} = 25\ ^\circ C$	0.297		mJ
			$T_{vj} = 125\ ^\circ C$	0.297		
			$T_{vj} = 175\ ^\circ C$	0.297		
Turn-off energy loss per pulse	$E_{off}$	$I_D = 25\ A, V_{DD} = 600\ V, L_\sigma = 35\ nH, V_{GS} = -3/18\ V, R_{Goff} = 1.5\ \Omega, dv/dt = 43.6\ kV/\mu s (T_{vj} = 175\ ^\circ C)$	$T_{vj} = 25\ ^\circ C$	0.057		mJ
			$T_{vj} = 125\ ^\circ C$	0.057		
			$T_{vj} = 175\ ^\circ C$	0.057		
Thermal resistance, junction to heat sink	$R_{thJH}$	per MOSFET		1.85		K/W
Temperature under switching conditions	$T_{vj\ op}$		-40		175	$^\circ C$

**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 Notes AN 2018-09 and AN2021-13 must be considered to ensure sound operation of the device over the planned lifetime.

$T_{vj,op} > 150^\circ C$  is allowed for operation at overload conditions for MOSFET and body diode. For detailed specifications, please refer to AN 2021-13.

### 3 Body diode

**Table 6** **Maximum rated values**

Parameter	Symbol	Note or test condition		Values	Unit
DC body diode forward current	$I_{SD}$	$T_{vj} = 175\ ^\circ C, V_{GS} = -3\ V$	$T_H = 70\ ^\circ C$	13	A

**Table 7** **Characteristic values**

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	$V_{SD}$	$I_{SD} = 25\ A, V_{GS} = -3\ V$	$T_{vj} = 25\ ^\circ C$	4.2	5.35	V
			$T_{vj} = 125\ ^\circ C$	3.9		
			$T_{vj} = 175\ ^\circ C$	3.8		

## 4 Diode, Boost

**Table 8** Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Repetitive peak reverse voltage	$V_{RRM}$		$T_{vj} = 25\text{ °C}$	1200	V
Implemented forward current	$I_{FN}$			20	A
Continuous DC forward current	$I_F$			25	A
Repetitive peak forward current	$I_{FRM}$	$t_P = 1\text{ ms}$		40	A
$I^2t$ - value	$I^2t$	$t_P = 10\text{ ms}, V_R = 0\text{ V}$	$T_{vj} = 25\text{ °C}$	193	$A^2s$
			$T_{vj} = 125\text{ °C}$	169	
			$T_{vj} = 150\text{ °C}$	165	

**Table 9** Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	$V_F$	$I_F = 25\text{ A}, V_{GE} = 0\text{ V}$	$T_{vj} = 25\text{ °C}$	1.55	2.05	V
			$T_{vj} = 125\text{ °C}$	1.95		
			$T_{vj} = 150\text{ °C}$	2.10		
Peak reverse recovery current	$I_{RM}$	$V_{CC} = 600\text{ V}, I_F = 25\text{ A}, -di_F/dt = 2300\text{ A}/\mu s$ ( $T_{vj} = 150\text{ °C}$ )	$T_{vj} = 25\text{ °C}$	21		A
			$T_{vj} = 125\text{ °C}$	21		
			$T_{vj} = 150\text{ °C}$	21		
Recovered charge	$Q_r$	$V_{CC} = 600\text{ V}, I_F = 25\text{ A}, -di_F/dt = 2300\text{ A}/\mu s$ ( $T_{vj} = 150\text{ °C}$ )	$T_{vj} = 25\text{ °C}$	0.21		$\mu C$
			$T_{vj} = 125\text{ °C}$	0.21		
			$T_{vj} = 150\text{ °C}$	0.21		
Reverse recovery energy	$E_{rec}$	$V_{CC} = 600\text{ V}, I_F = 25\text{ A}, -di_F/dt = 2300\text{ A}/\mu s$ ( $T_{vj} = 150\text{ °C}$ )	$T_{vj} = 25\text{ °C}$	0.03		mJ
			$T_{vj} = 125\text{ °C}$	0.03		
			$T_{vj} = 150\text{ °C}$	0.03		
Thermal resistance, junction to heat sink	$R_{thJH}$	per diode		1.75		K/W
Temperature under switching conditions	$T_{vj\text{ op}}$			-40	150	°C

## 5 Bypass-diode A

**Table 10** Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Repetitive peak reverse voltage	$V_{RRM}$		$T_{vj} = 25\text{ °C}$	1200	V
Maximum RMS forward current per chip	$I_{FRMSM}$	$T_H = 50\text{ °C}$		50	A
Maximum RMS current at rectifier output	$I_{RMSM}$	$T_H = 50\text{ °C}$		50	A
Surge forward current	$I_{FSM}$	$t_P = 10\text{ ms}$	$T_{vj} = 25\text{ °C}$	450	A
			$T_{vj} = 150\text{ °C}$	360	
$I^2t$ - value	$I^2t$	$t_P = 10\text{ ms}$	$T_{vj} = 25\text{ °C}$	1010	A <sup>2</sup> s
			$T_{vj} = 150\text{ °C}$	648	

**Table 11** Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	$V_F$	$I_F = 25\text{ A}$		0.90		V
Reverse current	$I_r$	$T_{vj} = 150\text{ °C}$ , $V_R = 1200\text{ V}$		0.1		mA
Thermal resistance, junction to heat sink	$R_{thJH}$	per diode		1.38		K/W
Temperature under switching conditions	$T_{vj, op}$		-40		150	°C

## 6 Bypass-diode B

**Table 12** Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Repetitive peak reverse voltage	$V_{RRM}$		$T_{vj} = 25\text{ °C}$	1200	V
Maximum RMS forward current per chip	$I_{FRMSM}$	$T_H = 100\text{ °C}$		25	A
Maximum RMS current at rectifier output	$I_{RMSM}$	$T_H = 100\text{ °C}$		25	A
Surge forward current	$I_{FSM}$	$t_P = 10\text{ ms}$	$T_{vj} = 25\text{ °C}$	450	A
			$T_{vj} = 150\text{ °C}$	360	
$I^2t$ - value	$I^2t$	$t_P = 10\text{ ms}$	$T_{vj} = 25\text{ °C}$	1010	A <sup>2</sup> s
			$T_{vj} = 150\text{ °C}$	648	

**Table 13** Characteristic values

Parameter	Symbol	Note or test condition		Values			Unit
				Min.	Typ.	Max.	
Forward voltage	$V_F$	$I_F = 25\text{ A}$	$T_{vj} = 150\text{ °C}$		0.90		V
Reverse current	$I_r$	$T_{vj} = 150\text{ °C}$ , $V_R = 1200\text{ V}$			0.1		mA
Thermal resistance, junction to heat sink	$R_{thJH}$	per diode			1.38		K/W
Temperature under switching conditions	$T_{vj, op}$			-40		150	°C

## 7 Inverse-polarity protection diode A

**Table 14** Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Repetitive peak reverse voltage	$V_{RRM}$		$T_{vj} = 25\text{ °C}$	1200	V
Maximum RMS forward current per chip	$I_{FRMSM}$	$T_H = 50\text{ °C}$		50	A
Maximum RMS current at rectifier output	$I_{RMSM}$	$T_H = 50\text{ °C}$		50	A
Surge forward current	$I_{FSM}$	$t_p = 10\text{ ms}$	$T_{vj} = 25\text{ °C}$	450	A
			$T_{vj} = 150\text{ °C}$	360	
$I^2t$ - value	$I^2t$	$t_p = 10\text{ ms}$	$T_{vj} = 25\text{ °C}$	1010	A <sup>2</sup> s
			$T_{vj} = 150\text{ °C}$	648	

**Table 15** Characteristic values

Parameter	Symbol	Note or test condition		Values			Unit
				Min.	Typ.	Max.	
Forward voltage	$V_F$	$I_F = 50\text{ A}$	$T_{vj} = 150\text{ °C}$		1.10		V
Reverse current	$I_r$	$T_{vj} = 150\text{ °C}$ , $V_R = 1200\text{ V}$			0.1		mA
Thermal resistance, junction to heat sink	$R_{thJH}$	per diode			1.38		K/W
Temperature under switching conditions	$T_{vj, op}$			-40		150	°C



## 8 Inverse-polarity protection diode B

**Table 16** Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Repetitive peak reverse voltage	$V_{RRM}$		$T_{vj} = 25\text{ °C}$	1200	V
Maximum RMS forward current per chip	$I_{FRMSM}$	$T_H = 100\text{ °C}$		25	A
Maximum RMS current at rectifier output	$I_{RMSM}$	$T_H = 100\text{ °C}$		25	A
Surge forward current	$I_{FSM}$	$t_P = 10\text{ ms}$	$T_{vj} = 25\text{ °C}$	450	A
			$T_{vj} = 150\text{ °C}$	360	
$I^2t$ - value	$I^2t$	$t_P = 10\text{ ms}$	$T_{vj} = 25\text{ °C}$	1010	$A^2s$
			$T_{vj} = 150\text{ °C}$	648	

**Table 17** Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	$V_F$	$I_F = 25\text{ A}$ $T_{vj} = 150\text{ °C}$		0.90		V
Reverse current	$I_r$	$T_{vj} = 150\text{ °C}$ , $V_R = 1200\text{ V}$		0.1		mA
Thermal resistance, junction to heat sink	$R_{thJH}$	per diode		1.38		K/W
Temperature under switching conditions	$T_{vj, op}$		-40		150	°C

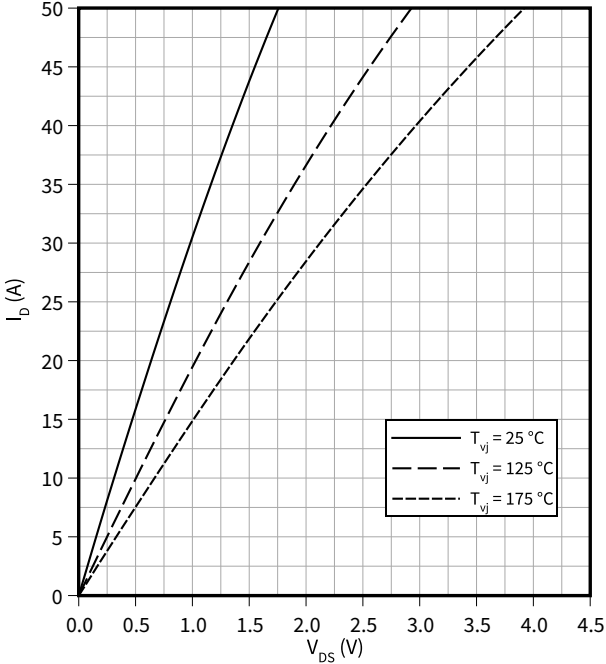
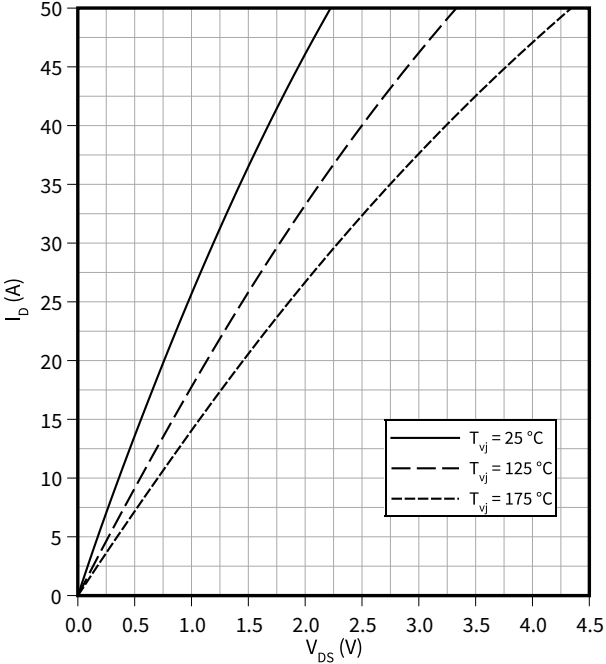
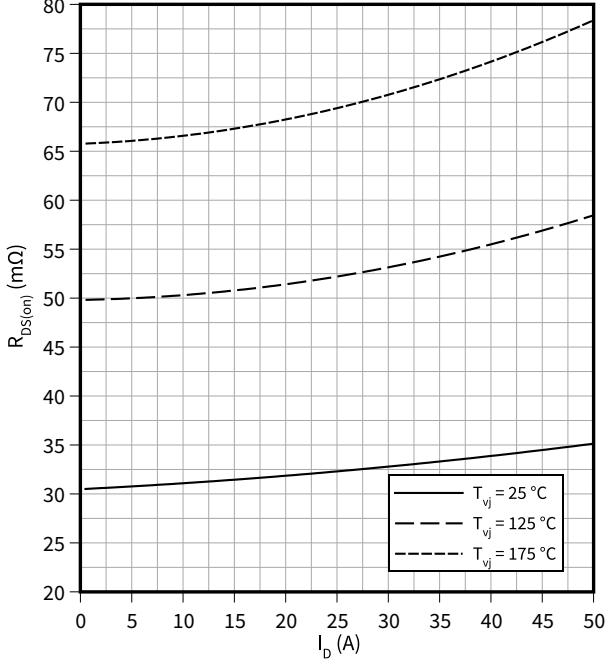
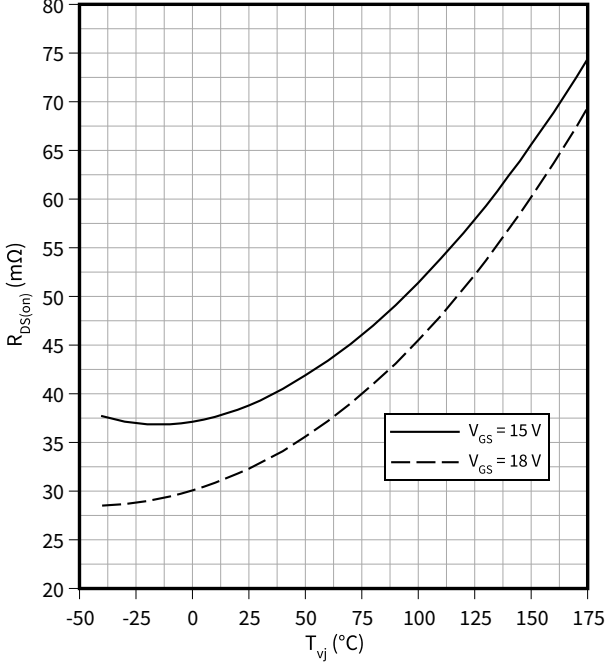
## 9 NTC-Thermistor

**Table 18** Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Rated resistance	$R_{25}$	$T_{NTC} = 25\text{ °C}$		5		kΩ
Deviation of $R_{100}$	$\Delta R/R$	$T_{NTC} = 100\text{ °C}$ , $R_{100} = 493\text{ Ω}$	-5		5	%
Power dissipation	$P_{25}$	$T_{NTC} = 25\text{ °C}$			20	mW
B-value	$B_{25/50}$	$R_2 = R_{25} \exp[B_{25/50}(1/T_2 - 1/(298,15\text{ K}))]$		3375		K
B-value	$B_{25/80}$	$R_2 = R_{25} \exp[B_{25/80}(1/T_2 - 1/(298,15\text{ K}))]$		3411		K
B-value	$B_{25/100}$	$R_2 = R_{25} \exp[B_{25/100}(1/T_2 - 1/(298,15\text{ K}))]$		3433		K

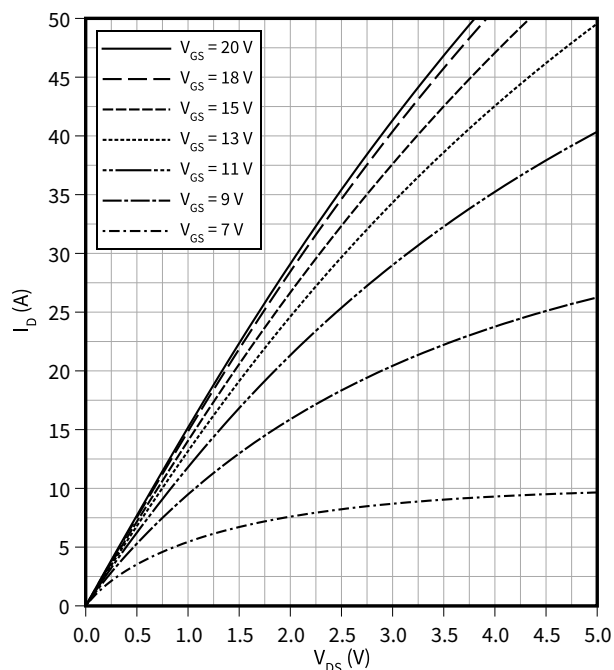
Note: Specification according to the valid application note.

10 Characteristics diagrams

<p><b>Output characteristic (typical), MOSFET</b></p> <p><math>I_D = f(V_{DS})</math></p> <p><math>V_{GS} = 18\text{ V}</math></p> 	<p><b>Output characteristic (typical), MOSFET</b></p> <p><math>I_D = f(V_{DS})</math></p> <p><math>V_{GS} = 15\text{ V}</math></p> 
<p><b>Drain source on-resistance (typical), MOSFET</b></p> <p><math>R_{DS(on)} = f(I_D)</math></p> <p><math>V_{GS} = 18\text{ V}</math></p> 	<p><b>Drain source on-resistance (typical), MOSFET</b></p> <p><math>R_{DS(on)} = f(T_{vj})</math></p> <p><math>I_D = 25\text{ A}</math></p> 

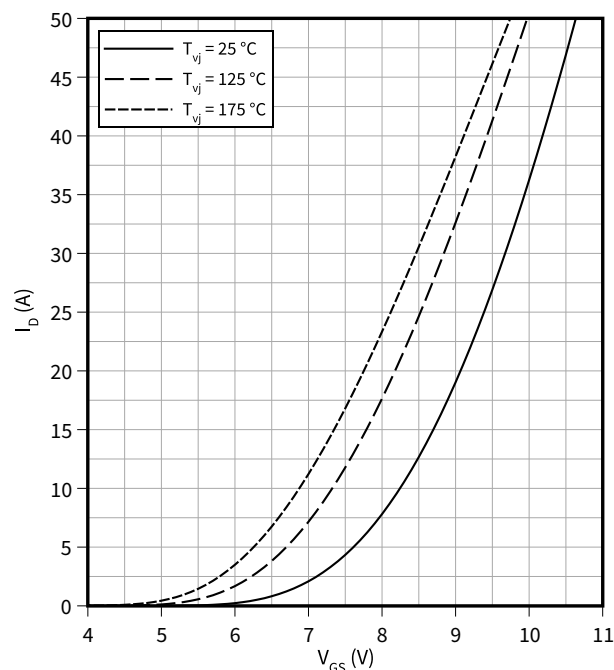
**Output characteristic field (typical), MOSFET**

$I_D = f(V_{DS})$   
 $T_{vj} = 175\text{ °C}$



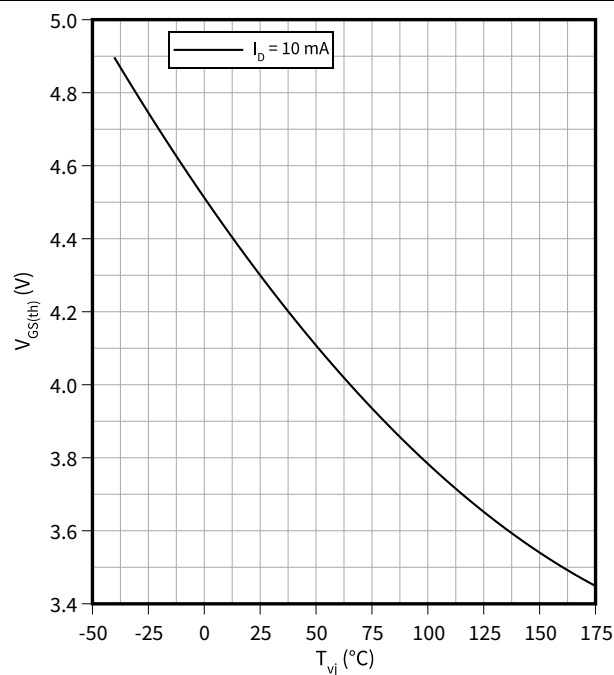
**Transfer characteristic (typical), MOSFET**

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



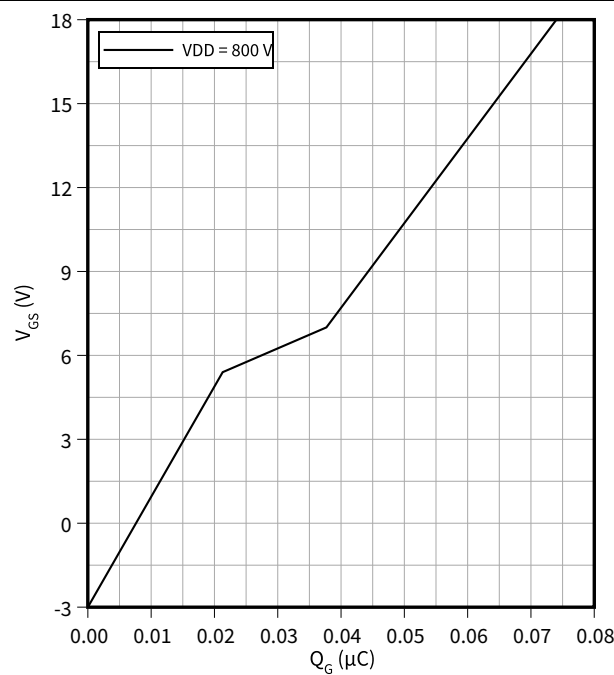
**Gate-source threshold voltage (typical), MOSFET**

$V_{GS(th)} = f(T_{vj})$   
 $I_D = 10\text{ mA}$ ,  $V_{GS} = V_{DS}$



**Gate charge characteristic (typical), MOSFET**

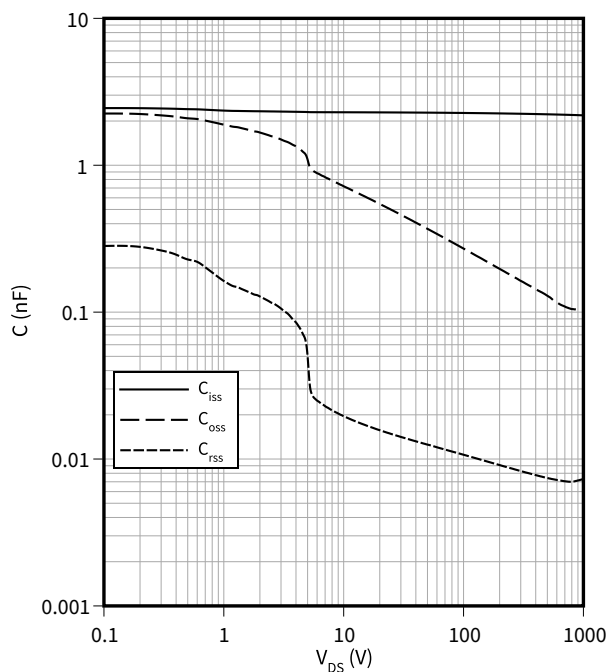
$V_{GS} = f(Q_G)$   
 $I_D = 25\text{ A}$ ,  $T_{vj} = 25\text{ °C}$



**Capacity characteristic (typical), MOSFET**

$$C = f(V_{DS})$$

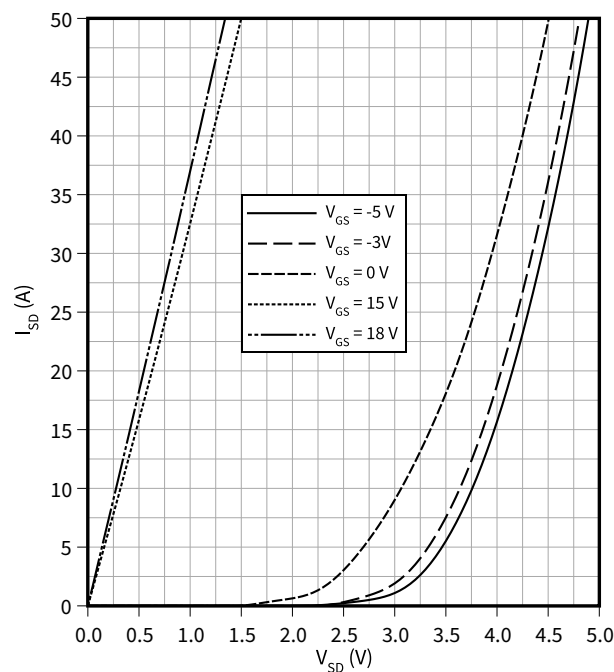
$f = 100 \text{ kHz}$ ,  $T_{vj} = 25^\circ\text{C}$ ,  $V_{GS} = 0 \text{ V}$



**Forward characteristic body diode (typical), MOSFET**

$$I_{SD} = f(V_{SD})$$

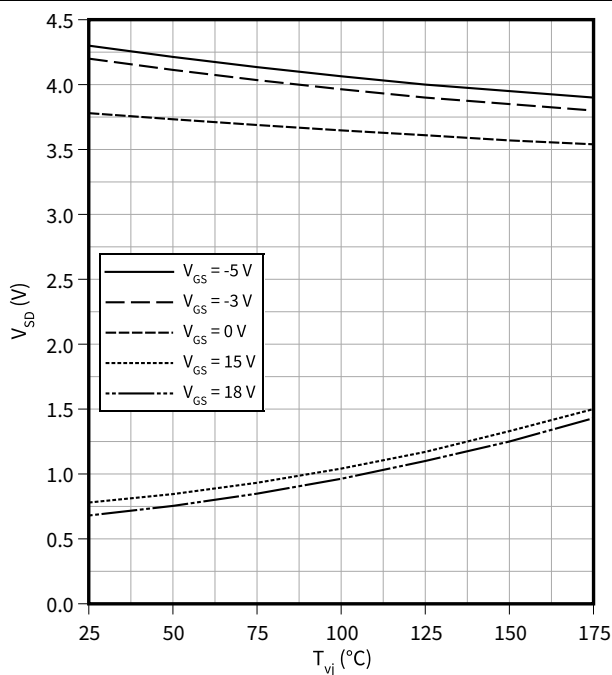
$T_{vj} = 25^\circ\text{C}$



**Forward voltage of body diode (typical), MOSFET**

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

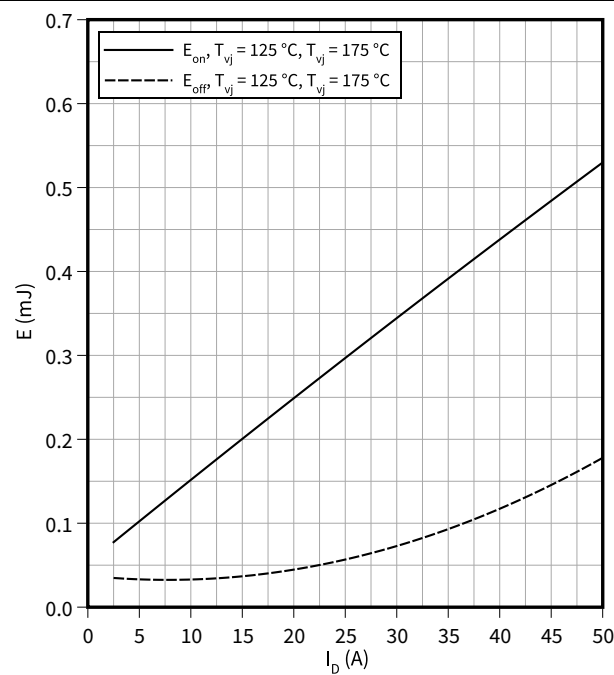
$I_{SD} = 25 \text{ A}$



**Switching losses (typical), MOSFET**

$$E = f(I_D)$$

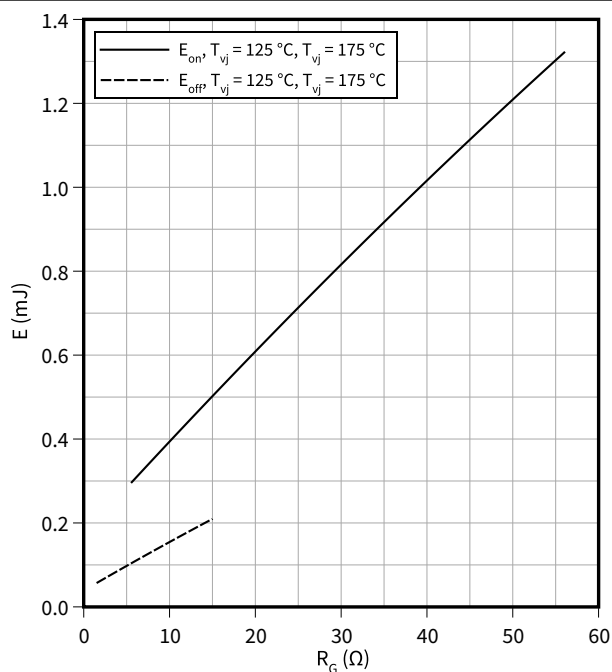
$R_{Goff} = 1.5 \Omega$ ,  $R_{Gon} = 5.6 \Omega$ ,  $V_{DD} = 600 \text{ V}$ ,  $V_{GS} = -3/18 \text{ V}$



### Switching losses (typical), MOSFET

$$E = f(R_G)$$

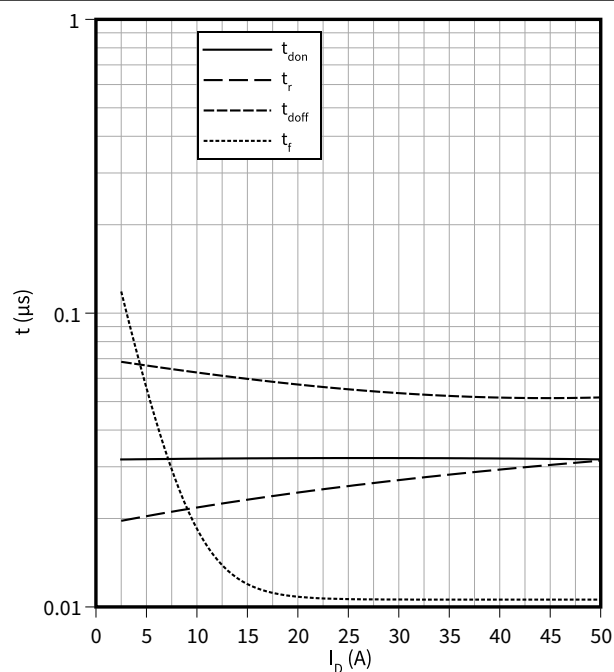
$V_{DD} = 600 \text{ V}$ ,  $I_D = 25 \text{ A}$ ,  $V_{GS} = -3/18 \text{ V}$



### Switching times (typical), MOSFET

$$t = f(I_D)$$

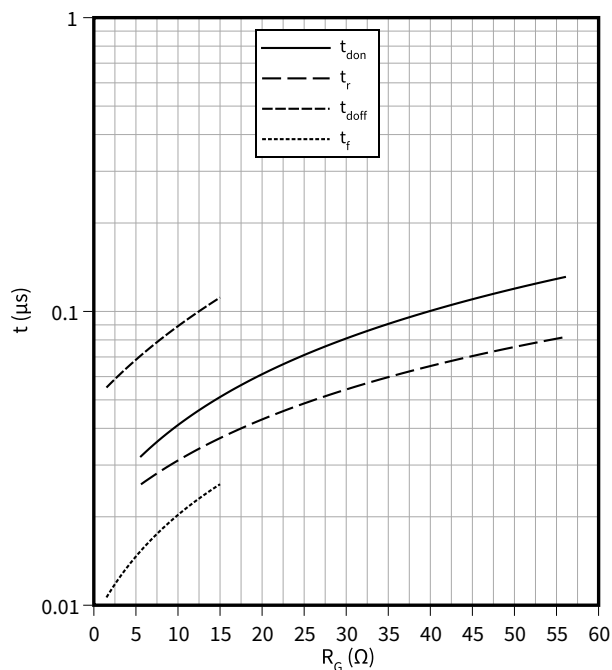
$R_{Goff} = 1.5 \text{ } \Omega$ ,  $R_{Gon} = 5.6 \text{ } \Omega$ ,  $V_{DD} = 600 \text{ V}$ ,  $T_{vj} = 175 \text{ } ^\circ\text{C}$ ,  $V_{GS} = -3/18 \text{ V}$



### Switching times (typical), MOSFET

$$t = f(R_G)$$

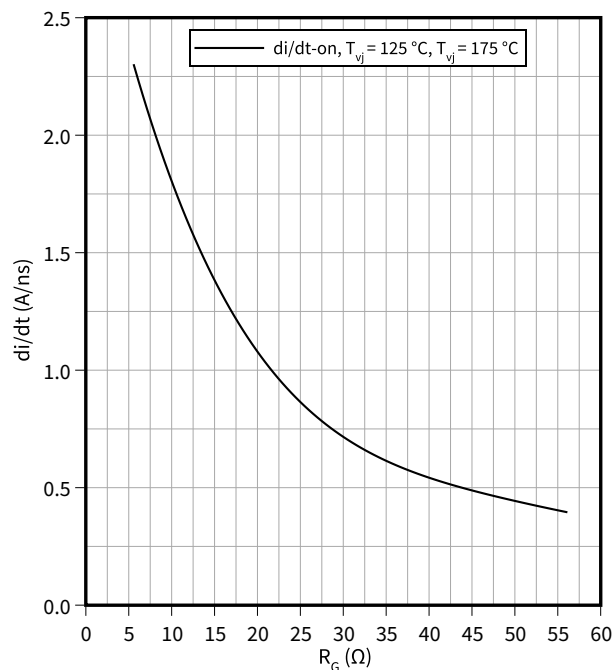
$V_{DD} = 600 \text{ V}$ ,  $I_D = 25 \text{ A}$ ,  $T_{vj} = 175 \text{ } ^\circ\text{C}$ ,  $V_{GS} = -3/18 \text{ V}$



### Current slope (typical), MOSFET

$$di/dt = f(R_G)$$

$V_{DD} = 600 \text{ V}$ ,  $I_D = 25 \text{ A}$ ,  $V_{GS} = -3/18 \text{ V}$

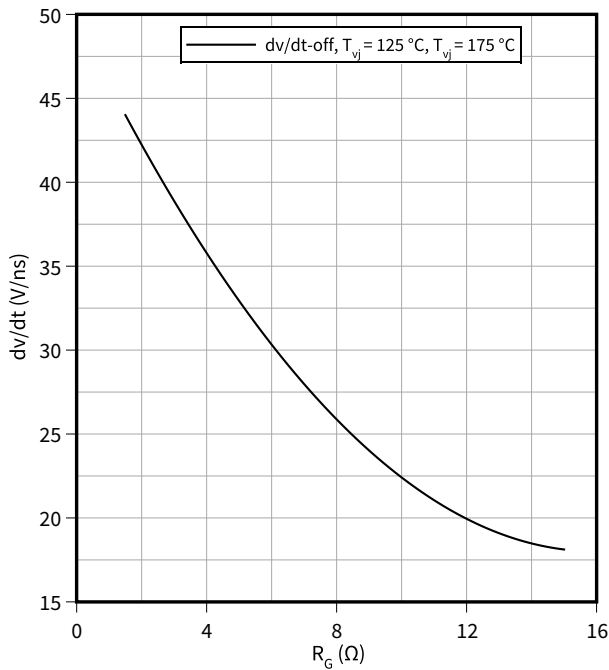


10 Characteristics diagrams

Voltage slope (typical), MOSFET

$dv/dt = f(R_G)$

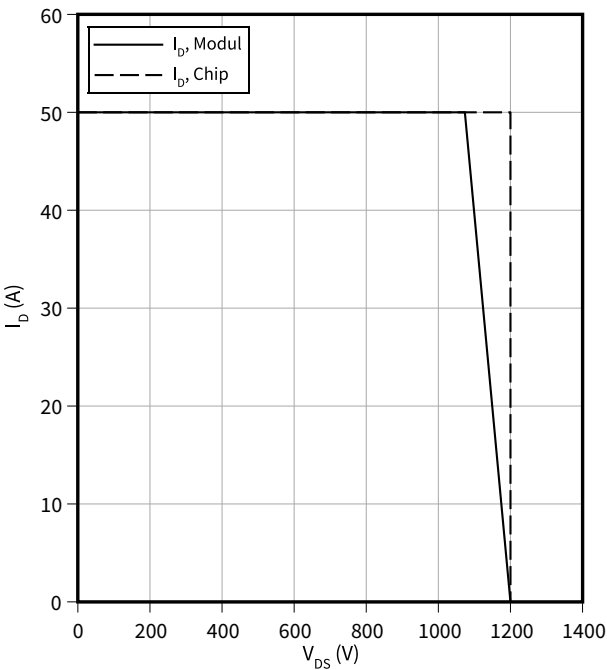
$V_{DD} = 600\text{ V}$ ,  $I_D = 25\text{ A}$ ,  $V_{GS} = -3/18\text{ V}$



Reverse bias safe operating area (RBSOA), MOSFET

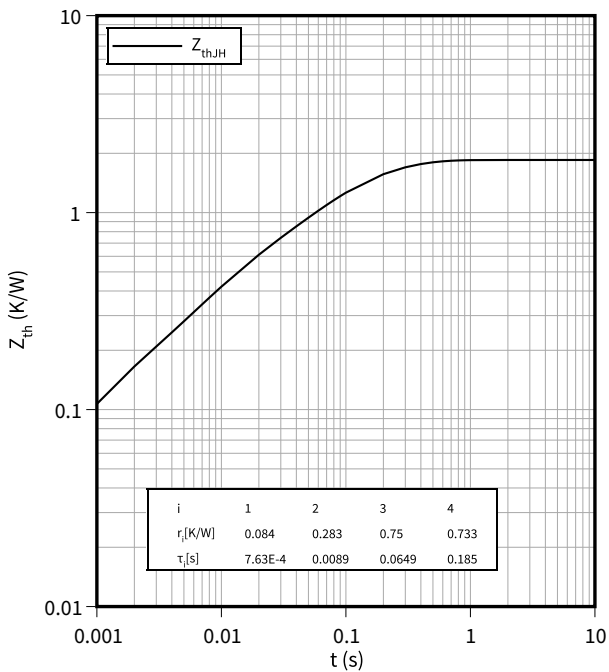
$I_D = f(V_{DS})$

$R_{Goff} = 1.5\text{ }\Omega$ ,  $T_{vj} = 175\text{ }^\circ\text{C}$ ,  $V_{GS} = -3/18\text{ V}$



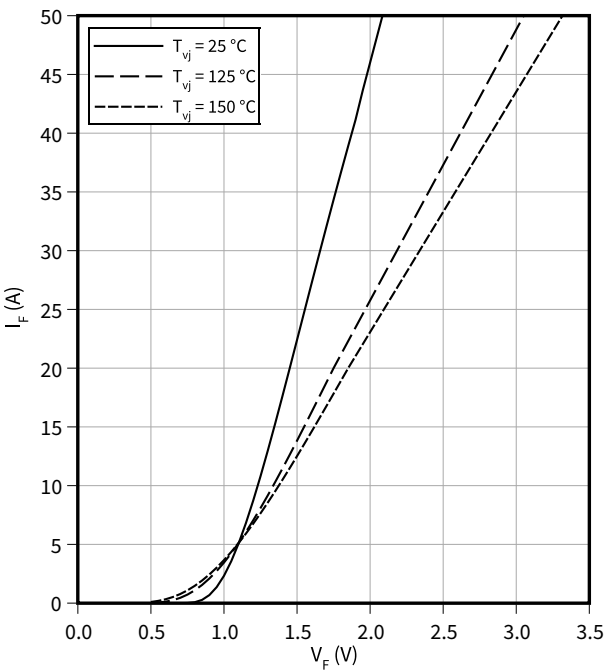
Transient thermal impedance, MOSFET

$Z_{th} = f(t)$



Forward characteristic (typical), Diode, Boost

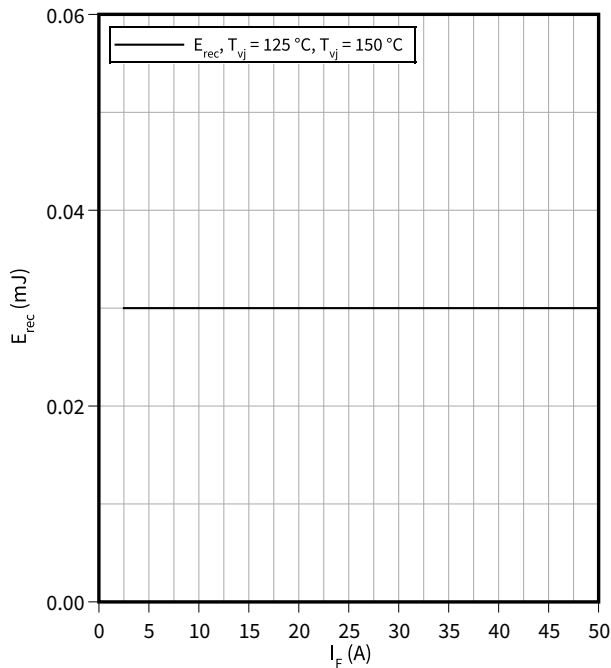
$I_F = f(V_F)$



10 Characteristics diagrams

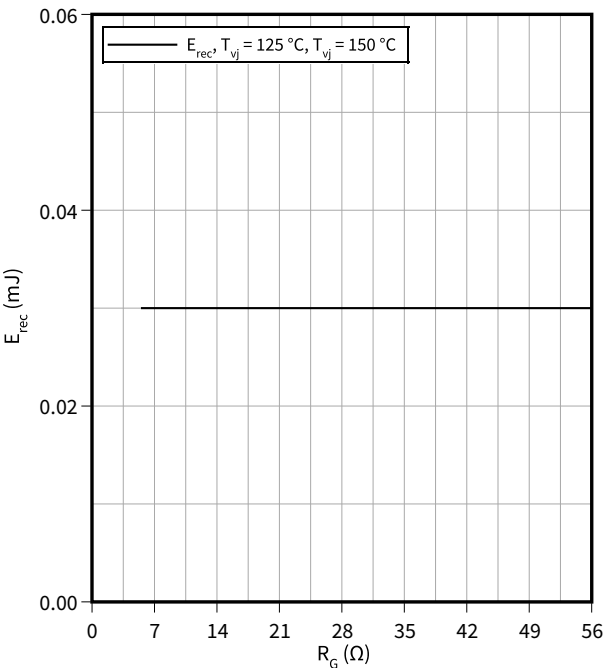
Switching losses (typical), Diode, Boost

$E_{rec} = f(I_F)$   
 $R_{Gon} = 5.6$  ,  $V_{CC} = 600$  V



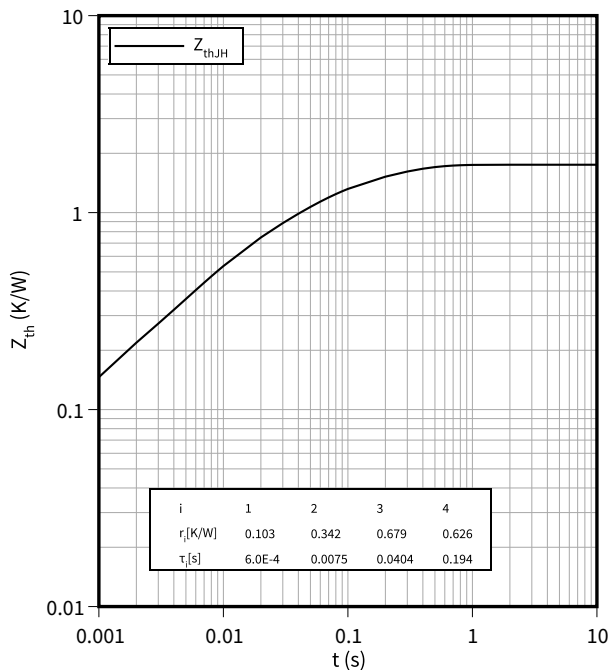
Switching losses (typical), Diode, Boost

$E_{rec} = f(R_G)$   
 $I_F = 25$  A,  $V_{CC} = 600$  V



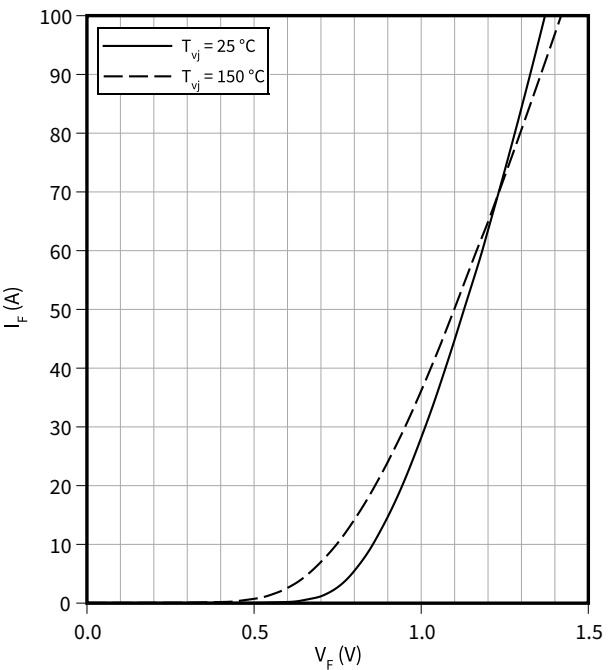
Transient thermal impedance, Diode, Boost

$Z_{th} = f(t)$

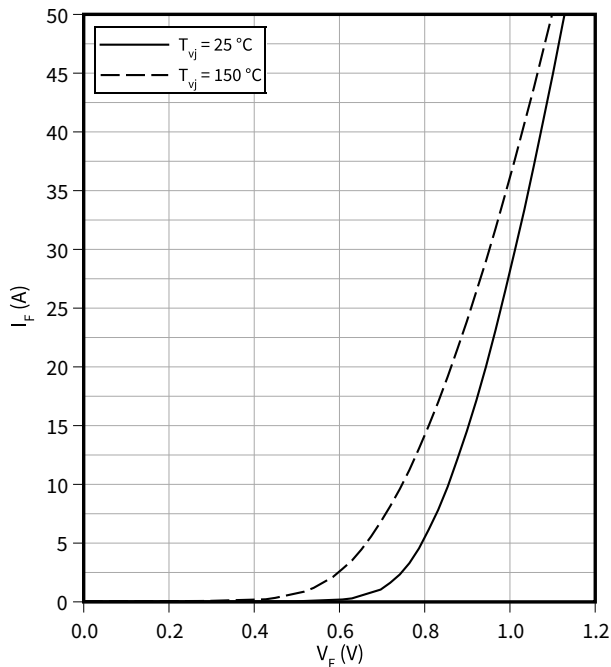


Forward characteristic (typical), Bypass-diode A

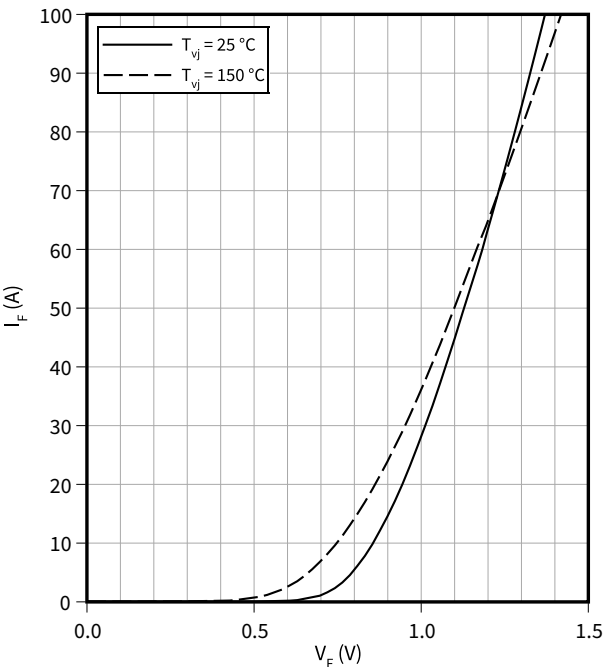
$I_F = f(V_F)$



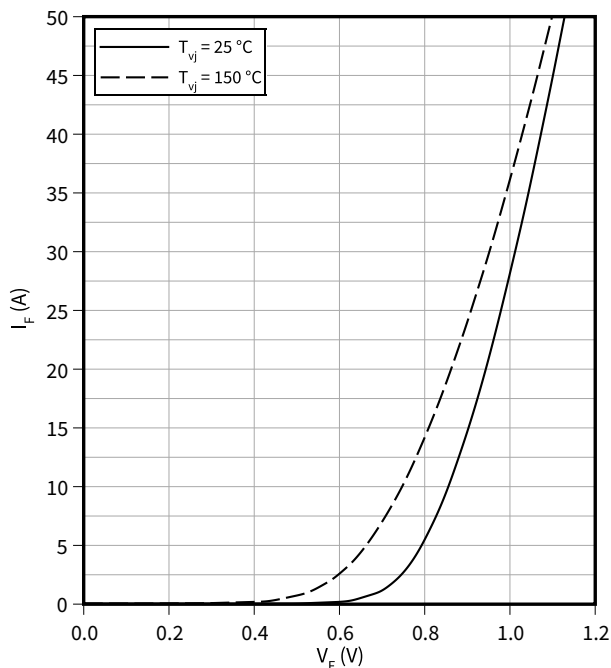
Forward characteristic (typical), Bypass-diode B  
 $I_F = f(V_F)$



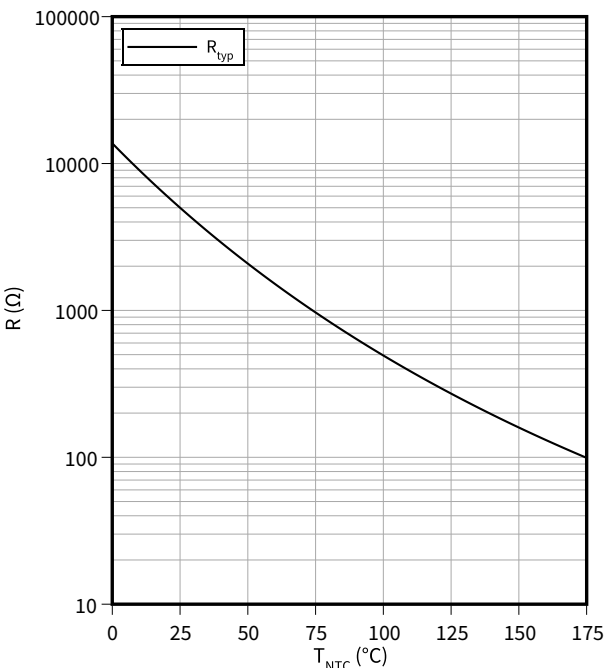
Forward characteristic (typical), Inverse-polarity protection diode A  
 $I_F = f(V_F)$



Forward characteristic (typical), Inverse-polarity protection diode B  
 $I_F = f(V_F)$

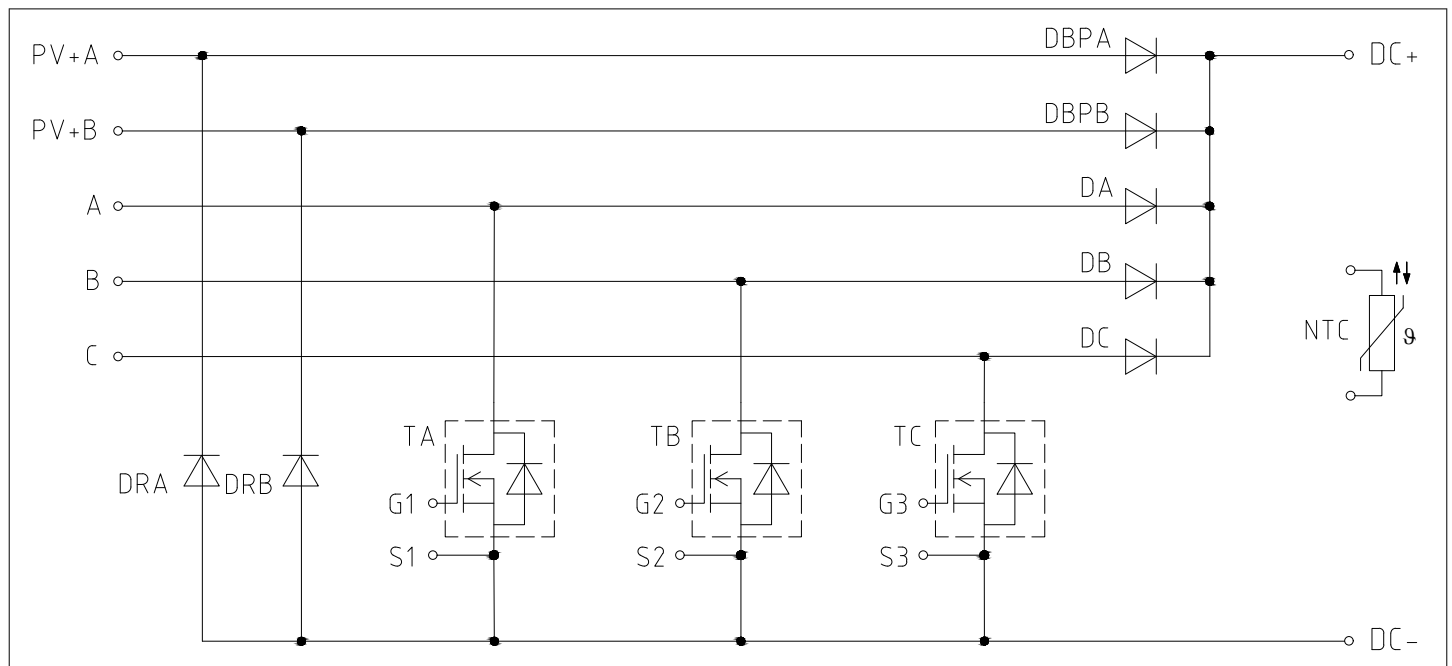


Temperature characteristic (typical), NTC-Thermistor  
 $R = f(T_{NTC})$





## 11 Circuit diagram



### Figure 1

## 12

### Figure 2

13            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

Document version	Date of release	Description of changes
0.10	2022-11-24	Initial version

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