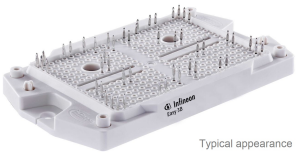
EasyPACK™ module with TRENCHSTOP™ IGBT H3 and emitter controlled 7 diode and PressFIT / NTC

Features


Typical appearance

- Electrical features
  - V_{CES} = 1200 V
  - $I_{C\ nom}$ = 225 A / I_{CRM} = 450 A
  - Low switching losses
  - High-speed IGBT H3
- Mechanical features
  - Compact design
  - PressFIT contact technology
  - Integrated NTC temperature sensor
  - High power density

Potential applications

- Energy storage systems
- Solar applications
- Three-level applications

Product validation

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

Description

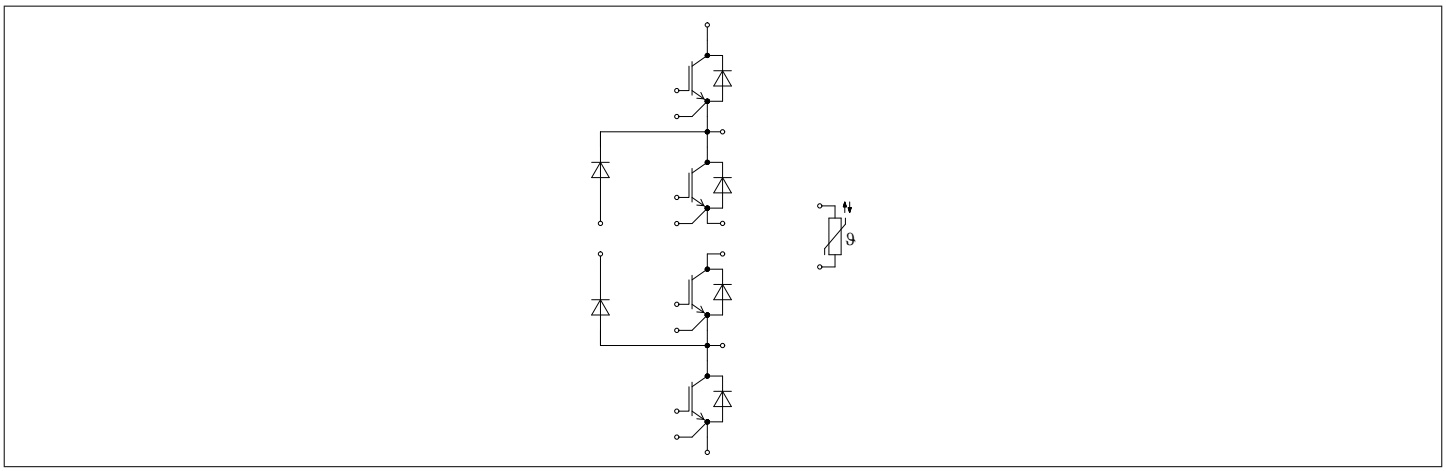


Table of contents

1 Package

Table 1 Insulation coordination

Parameter	Symbol	Note or test condition	Values	Unit
Isolation test voltage	V_{ISOL}	RMS, f = 50 Hz, *t* = 1 min	3.2	kV
Internal isolation		basic insulation (class 1, IEC 61140)	Al_2O_3	
Comparative tracking index	*CTI*		> 400	
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}			21		nH
Module lead resistance, terminals - chip	$R_{AA'+CC'}$	T_H = 25 °C, per switch		2.3		mΩ
Module lead resistance, terminals - chip	$R_{CC'+EE'}$	T_H = 25 °C, per switch		1.7		mΩ
Storage temperature	T_{stg}		-40		125	°C
Mounting torque for module mounting	*M*	- Mounting according to valid application note; M5, Screw	1.3		1.5	Nm
Weight	*G*			78		g

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

2 IGBT, T1 / T4

Table 3 Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Collector-emitter voltage	V_{CES}		T_{vj} = 25 °C	1200	V
Implemented collector current	I_{CN}			225	A
Continuous DC collector current	I_{CDC}	$T_{vj\,max}$ = 175 °C	T_H = 65 °C	175	A
Repetitive peak collector current	I_{CRM}	t_p limited by $T_{vj\,op}$		450	A
Gate-emitter peak voltage	V_{GES}			±20	V

Table 4 Characteristic values

Parameter	Symbol	Note or test condition		Values			Unit
				Min.	Typ.	Max.	
Collector-emitter saturation voltage	$V_{CE\,sat}$	I_C = 225 A, V_{GE} = 15 V	T_{vj} = 25 °C		2.07	2.55	V
			T_{vj} = 125 °C		2.50		
			T_{vj} = 150 °C		2.60		
Gate threshold voltage	V_{GEth}	I_C = 7.8 mA, V_{CE} = V_{GE}, T_{vj} = 25 °C		5.25	5.80	6.35	V
Gate charge	Q_G	V_{GE} = ±15 V			1.73		µC
Internal gate resistor	R_{Gint}	T_{vj} = 25 °C			3.3		Ω
Input capacitance	C_{ies}	f = 100 kHz, T_{vj} = 25 °C, V_{CE} = 25 V, V_{GE} = 0 V			13.1		nF
Reverse transfer capacitance	C_{res}	f = 100 kHz, T_{vj} = 25 °C, V_{CE} = 25 V, V_{GE} = 0 V			0.72		nF
Collector-emitter cut-off current	I_{CES}	V_{CE} = 1200 V, V_{GE} = 0 V	T_{vj} = 25 °C			1	mA
Gate-emitter leakage current	I_{GES}	V_{CE} = 0 V, V_{GE} = 20 V, T_{vj} = 25 °C				100	nA
Turn-on delay time (inductive load)	t_{don}	I_C = 225 A, V_{CC} = 600 V, V_{GE} = ±15 V, R_{Gon} = 0.47 Ω	T_{vj} = 25 °C		0.107		µs
			T_{vj} = 125 °C		0.115		
			T_{vj} = 150 °C		0.118		
Rise time (inductive load)	t_r	I_C = 225 A, V_{CC} = 600 V, V_{GE} = ±15 V, R_{Gon} = 0.47 Ω	T_{vj} = 25 °C		0.030		µs
			T_{vj} = 125 °C		0.035		
			T_{vj} = 150 °C		0.037		
Turn-off delay time (inductive load)	t_{doff}	I_C = 225 A, V_{CC} = 600 V, V_{GE} = ±15 V, R_{Goff} = 0.47 Ω	T_{vj} = 25 °C		0.300		µs
			T_{vj} = 125 °C		0.329		
			T_{vj} = 150 °C		0.346		
Fall time (inductive load)	t_f	I_C = 225 A, V_{CC} = 600 V, V_{GE} = ±15 V, R_{Goff} = 0.47 Ω	T_{vj} = 25 °C		0.040		µs
			T_{vj} = 125 °C		0.129		
			T_{vj} = 150 °C		0.148		
Turn-on energy loss per pulse	E_{on}	I_C = 225 A, V_{CC} = 600 V, L_σ = 35 nH, V_{GE} = ±15 V, R_{Gon} = 0.47 Ω, di/dt = 6100 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		11.8		mJ
			T_{vj} = 125 °C		20.7		
			T_{vj} = 150 °C		23.4		
Turn-off energy loss per pulse	E_{off}	I_C = 225 A, V_{CC} = 600 V, L_σ = 35 nH, V_{GE} = ±15 V, R_{Goff} = 0.47 Ω, dv/dt = 4500 V/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		8.67		mJ
			T_{vj} = 125 °C		15.9		
			T_{vj} = 150 °C		17.8		
SC data	I_{SC}	V_{GE} ≤ 15 V, V_{CC} = 800 V, V_{CEmax}=V_{CES}-L_{sCE}*di/dt	t_P ≤ 10 µs, T_{vj}=150 °C		900		A

(table continues...)

Table 4 (continued) Characteristic values

Parameter	Symbol	Note or test condition	Values			Unit
			Min.	Typ.	Max.	
Thermal resistance, junction to heat sink	R_{thJH}	per IGBT, λ_{grease} = 3.3 W/(m·K)		0.218		K/W
Temperature under switching conditions	$T_{vj\,op}$		-40		150	°C

3 IGBT, T2 / T3

Table 5 Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Collector-emitter voltage	V_{CES}		T_{vj} = 25 °C	1200	V
Implemented collector current	I_{CN}			225	A
Continuous DC collector current	I_{CDC}	$T_{vj\,max}$ = 175 °C	T_H = 65 °C	180	A
Repetitive peak collector current	I_{CRM}	t_p limited by $T_{vj\,op}$		450	A
Gate-emitter peak voltage	V_{GES}			±20	V

Table 6 Characteristic values

Parameter	Symbol	Note or test condition		Values			Unit
				Min.	Typ.	Max.	
Collector-emitter saturation voltage	$V_{CE\,sat}$	I_C = 225 A, V_{GE} = 15 V	T_{vj} = 25 °C		2.07	2.55	V
			T_{vj} = 125 °C		2.50		
			T_{vj} = 150 °C		2.60		
Gate threshold voltage	V_{GEth}	I_C = 7.8 mA, V_{CE} = V_{GE}, T_{vj} = 25 °C		5.25	5.80	6.35	V
Gate charge	Q_G	V_{GE} = ±15 V			1.73		µC
Internal gate resistor	R_{Gint}	T_{vj} = 25 °C			3.3		Ω
Input capacitance	C_{ies}	f = 100 kHz, T_{vj} = 25 °C, V_{CE} = 25 V, V_{GE} = 0 V			13.1		nF
Reverse transfer capacitance	C_{res}	f = 100 kHz, T_{vj} = 25 °C, V_{CE} = 25 V, V_{GE} = 0 V			0.72		nF
Collector-emitter cut-off current	I_{CES}	V_{CE} = 1200 V, V_{GE} = 0 V	T_{vj} = 25 °C			1	mA
Gate-emitter leakage current	I_{GES}	V_{CE} = 0 V, V_{GE} = 20 V, T_{vj} = 25 °C				100	nA

(table continues...)

Table 6 (continued) Characteristic values

Parameter	Symbol	Note or test condition		Values			Unit
				Min.	Typ.	Max.	
Turn-on delay time (inductive load)	t_{don}	I_C = 225 A, V_{CC} = 600 V, V_{GE} = ±15 V, R_{Gon} = 0.47 Ω	T_{vj} = 25 °C		0.107		µs
			T_{vj} = 125 °C		0.117		
			T_{vj} = 150 °C		0.122		
Rise time (inductive load)	t_r	I_C = 225 A, V_{CC} = 600 V, V_{GE} = ±15 V, R_{Gon} = 0.47 Ω	T_{vj} = 25 °C		0.039		µs
			T_{vj} = 125 °C		0.048		
			T_{vj} = 150 °C		0.050		
Turn-off delay time (inductive load)	t_{doff}	I_C = 225 A, V_{CC} = 600 V, V_{GE} = ±15 V, R_{Goff} = 0.47 Ω	T_{vj} = 25 °C		0.290		µs
			T_{vj} = 125 °C		0.340		
			T_{vj} = 150 °C		0.360		
Fall time (inductive load)	t_f	I_C = 225 A, V_{CC} = 600 V, V_{GE} = ±15 V, R_{Goff} = 0.47 Ω	T_{vj} = 25 °C		0.041		µs
			T_{vj} = 125 °C		0.114		
			T_{vj} = 150 °C		0.139		
Turn-on energy loss per pulse	E_{on}	I_C = 225 A, V_{CC} = 600 V, L_σ = 35 nH, V_{GE} = ±15 V, R_{Gon} = 0.47 Ω, di/dt = 4600 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		8.1		mJ
			T_{vj} = 125 °C		14.3		
			T_{vj} = 150 °C		16.4		
Turn-off energy loss per pulse	E_{off}	I_C = 225 A, V_{CC} = 600 V, L_σ = 35 nH, V_{GE} = ±15 V, R_{Goff} = 0.47 Ω, dv/dt = 4200 V/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		9.25		mJ
			T_{vj} = 125 °C		17.5		
			T_{vj} = 150 °C		19.6		
SC data	I_{SC}	V_{GE} ≤ 15 V, V_{CC} = 800 V, V_{CEmax}=V_{CES}-L_{sCE}*di/dt	t_P ≤ 10 µs, T_{vj}=150 °C		900		A
Thermal resistance, junction to heat sink	R_{thJH}	per IGBT, λ_{grease} = 3.3 W/(m·K)			0.212		K/W
Temperature under switching conditions	$T_{vj\,op}$			-40		150	°C

4 Diode, D1 / D4

Table 7 Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Repetitive peak reverse voltage	V_{RRM}		T_{vj} = 25 °C	1200	V
Continuous DC forward current	I_F			300	A
Repetitive peak forward current	I_{FRM}	t_P = 1 ms		600	A

(table continues...)

Table 7 (continued) Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
I^2t - value	I^2t	t_P = 10 ms, V_R = 0 V	T_{vj} = 125 °C	10900	A^2s
			T_{vj} = 150 °C	6280	

Table 8 Characteristic values

Parameter	Symbol	Note or test condition		Values			Unit
				Min.	Typ.	Max.	
Forward voltage	V_F	I_F = 300 A, V_{GE} = 0 V	T_{vj} = 25 °C		1.72	2.10	V
			T_{vj} = 125 °C		1.59		
			T_{vj} = 150 °C		1.56		
Peak reverse recovery current	I_{RM}	V_{CC} = 600 V, I_F = 300 A, V_{GE} = -15 V, -di$_F$/dt = 4800 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		229		A
			T_{vj} = 125 °C		263		
			T_{vj} = 150 °C		272		
Recovered charge	Q_r	V_{CC} = 600 V, I_F = 300 A, V_{GE} = -15 V, -di$_F$/dt = 4800 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		20.5		µC
			T_{vj} = 125 °C		38.4		
			T_{vj} = 150 °C		44.5		
Reverse recovery energy	E_{rec}	V_{CC} = 600 V, I_F = 300 A, V_{GE} = -15 V, -di$_F$/dt = 4800 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		7.88		mJ
			T_{vj} = 125 °C		14.2		
			T_{vj} = 150 °C		16.2		
Thermal resistance, junction to heat sink	R_{thJH}	per diode, λ_{grease} = 3.3 W/(m·K)			0.354		K/W
Temperature under switching conditions	$T_{vj\,op}$			-40		150	°C

5 Diode, D2 / D3

Table 9 Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Repetitive peak reverse voltage	V_{RRM}		T_{vj} = 25 °C	1200	V
Continuous DC forward current	I_F			200	A
Repetitive peak forward current	I_{FRM}	t_P = 1 ms		400	A
I^2t - value	I^2t	t_P = 10 ms, V_R = 0 V	T_{vj} = 125 °C	3320	A^2s
			T_{vj} = 150 °C	2110	

Table 10 Characteristic values

Parameter	Symbol	Note or test condition		Values			Unit
				Min.	Typ.	Max.	
Forward voltage	V_F	I_F = 200 A, V_{GE} = 0 V	T_{vj} = 25 °C		1.72	2.10	V
			T_{vj} = 125 °C		1.59		
			T_{vj} = 150 °C		1.56		
Peak reverse recovery current	I_{RM}	V_{CC} = 600 V, I_F = 200 A, V_{GE} = -15 V, -di$_F$/dt = 4300 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		195		A
			T_{vj} = 125 °C		238		
			T_{vj} = 150 °C		248		
Recovered charge	Q_r	V_{CC} = 600 V, I_F = 200 A, V_{GE} = -15 V, -di$_F$/dt = 4300 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		14.1		µC
			T_{vj} = 125 °C		27.4		
			T_{vj} = 150 °C		31.3		
Reverse recovery energy	E_{rec}	V_{CC} = 600 V, I_F = 200 A, V_{GE} = -15 V, -di$_F$/dt = 4300 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		5.72		mJ
			T_{vj} = 125 °C		11.1		
			T_{vj} = 150 °C		12.5		
Thermal resistance, junction to heat sink	R_{thJH}	per diode, λ_{grease} = 3.3 W/(m·K)			0.415		K/W
Temperature under switching conditions	$T_{vj\,op}$			-40		150	°C

6 Diode, D5 / D6

Table 11 Maximum rated values

Parameter	Symbol	Note or test condition		Values	Unit
Repetitive peak reverse voltage	V_{RRM}		T_{vj} = 25 °C	1200	V
Continuous DC forward current	I_F			300	A
Repetitive peak forward current	I_{FRM}	t_P = 1 ms		600	A
I^2t - value	I^2t	t_P = 10 ms, V_R = 0 V	T_{vj} = 125 °C	10900	A^2s
			T_{vj} = 150 °C	6280	

Table 12 Characteristic values

Parameter	Symbol	Note or test condition		Values			Unit
				Min.	Typ.	Max.	
Forward voltage	V_F	I_F = 300 A, V_{GE} = 0 V	T_{vj} = 25 °C		1.72	2.10	V
			T_{vj} = 125 °C		1.59		
			T_{vj} = 150 °C		1.56		
Peak reverse recovery current	I_{RM}	V_{CC} = 600 V, I_F = 300 A, V_{GE} = -15 V, -di$_F$/dt = 6200 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		244		A
			T_{vj} = 125 °C		263		
			T_{vj} = 150 °C		272		
Recovered charge	Q_r	V_{CC} = 600 V, I_F = 300 A, V_{GE} = -15 V, -di$_F$/dt = 6200 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		20.4		µC
			T_{vj} = 125 °C		38.4		
			T_{vj} = 150 °C		44.5		
Reverse recovery energy	E_{rec}	V_{CC} = 600 V, I_F = 300 A, V_{GE} = -15 V, -di$_F$/dt = 6200 A/µs (T_{vj} = 150 °C)	T_{vj} = 25 °C		6.87		mJ
			T_{vj} = 125 °C		13		
			T_{vj} = 150 °C		14.8		
Thermal resistance, junction to heat sink	R_{thJH}	per diode, λ_{grease} = 3.3 W/(m·K)			0.399		K/W
Temperature under switching conditions	$T_{vj\,op}$			-40		150	°C

7 NTC-Thermistor

Table 13 Characteristic values

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

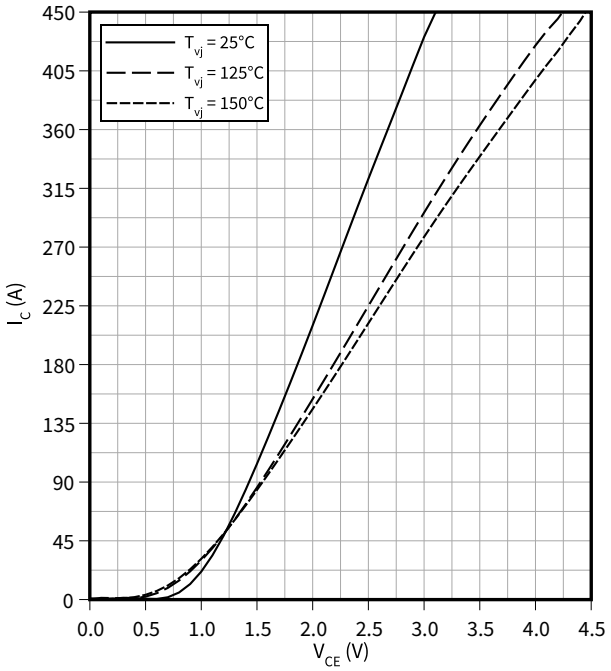
Note: Specification according to the valid application note.

8 Characteristics diagrams

Output characteristic (typical), IGBT, T1 / T4

$I_C = f(V_{CE})$

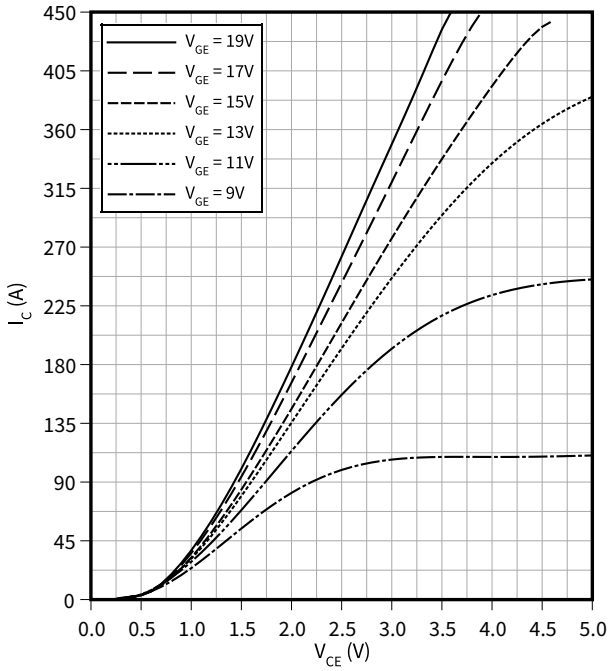
$V_{GE} = 15$ V



Output characteristic field (typical), IGBT, T1 / T4

$I_C = f(V_{CE})$

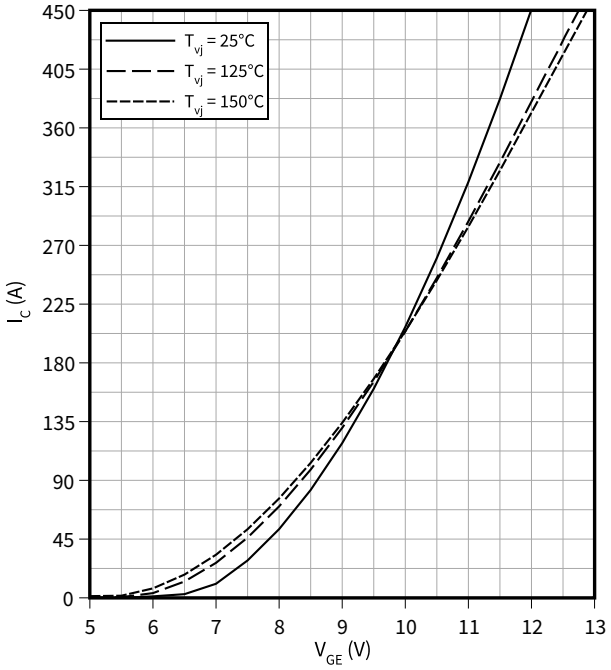
$T_{vj} = 150$ °C



Transfer characteristic (typical), IGBT, T1 / T4

$I_C = f(V_{GE})$

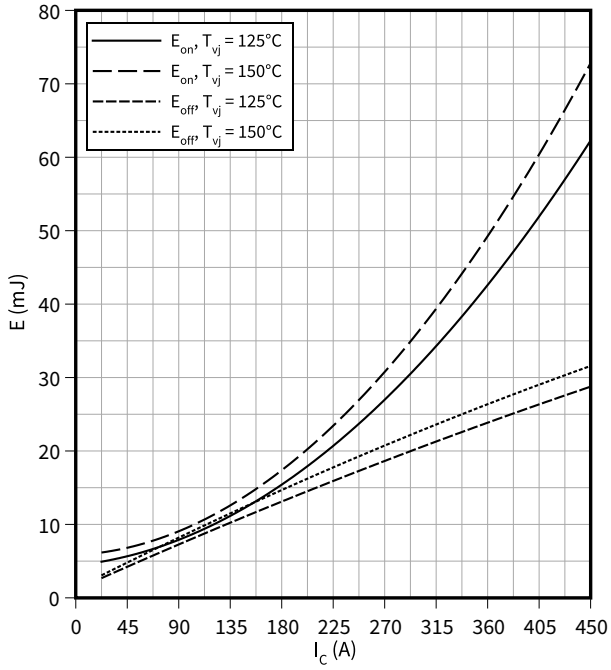
$V_{CE} = 20$ V



Switching losses (typical), IGBT, T1 / T4

$E = f(I_C)$

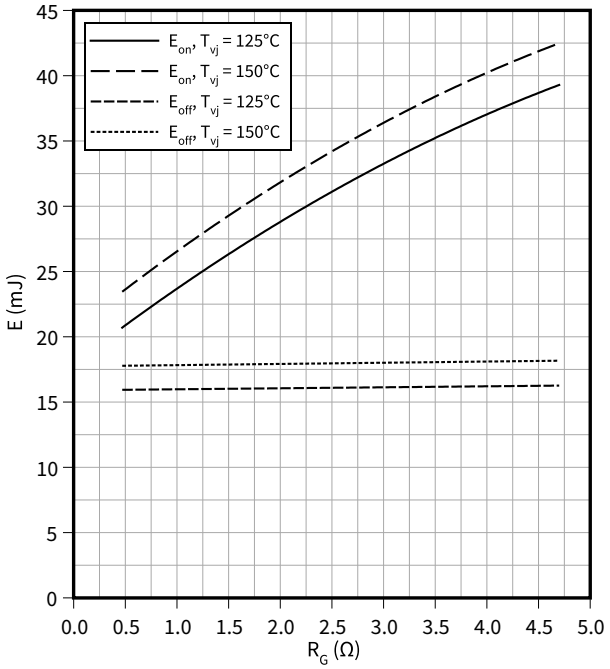
$R_{Goff} = 0.47\ \Omega$, $R_{Gon} = 0.47\ \Omega$, $V_{GE} = \pm 15$ V, $V_{CC} = 600$ V



Switching losses (typical), IGBT, T1 / T4

$E = f(R_G)$

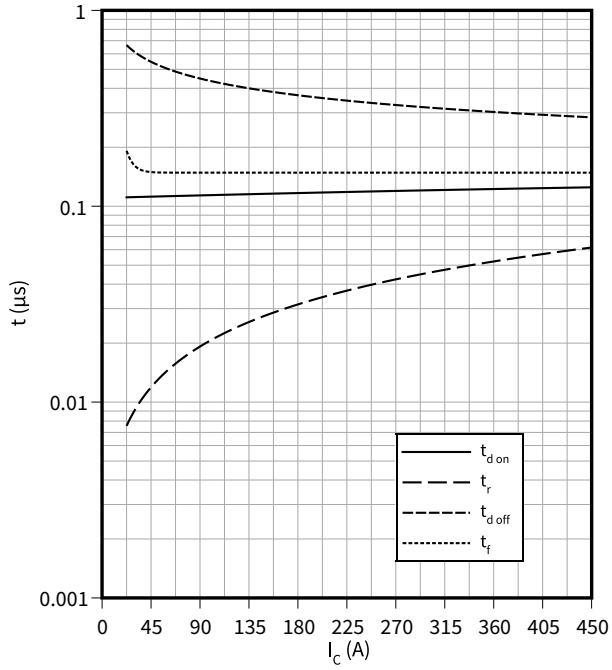
V_{GE} = ±15 V, I_C = 225 A, V_{CC} = 600 V



Switching times (typical), IGBT, T1 / T4

$t = f(I_C)$

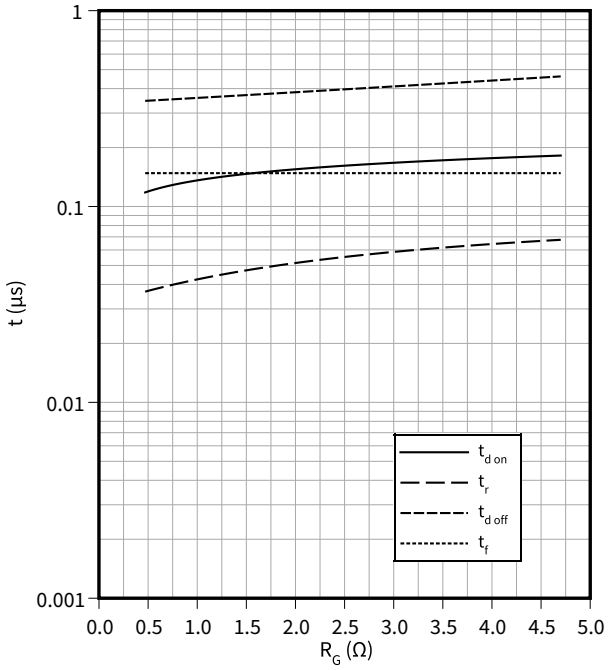
R_{Goff} = 0.47 Ω, R_{Gon} = 0.47 Ω, V_{GE} = ±15 V, V_{CC} = 600 V, T_{vj} = 150 °C



Switching times (typical), IGBT, T1 / T4

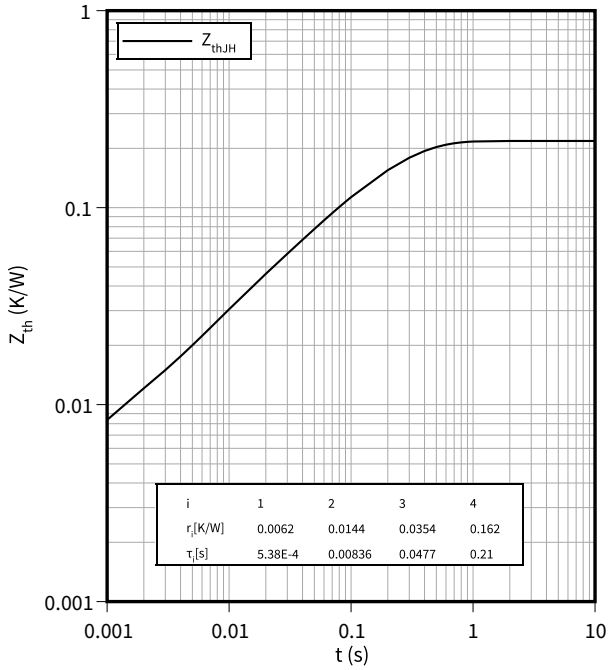
$t = f(R_G)$

V_{GE} = ±15 V, I_C = 225 A, V_{CC} = 600 V, T_{vj} = 150 °C



Transient thermal impedance , IGBT, T1 / T4

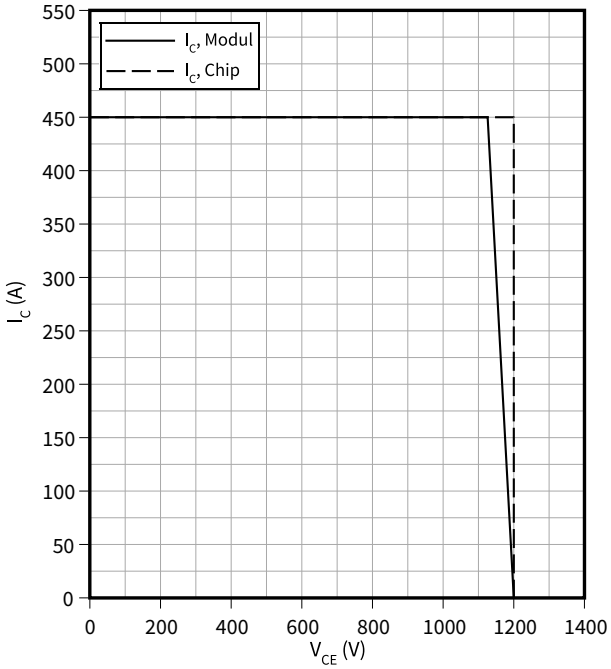
$Z_{th} = f(t)$



Reverse bias safe operating area (RBSOA), IGBT, T1 / T4

$I_C = f(V_{CE})$

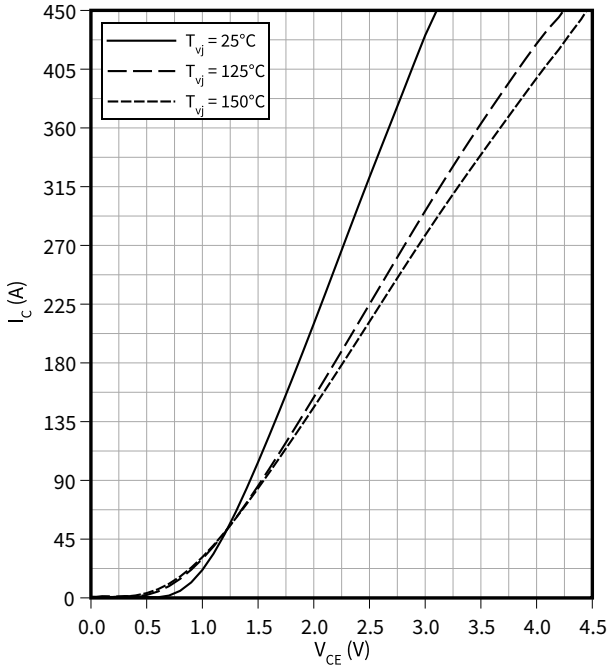
$R_{Goff} = 0.47\ \Omega$, $V_{GE} = \pm 15$ V, $T_{vj} = 150$ °C



Output characteristic (typical), IGBT, T2 / T3

$I_C = f(V_{CE})$

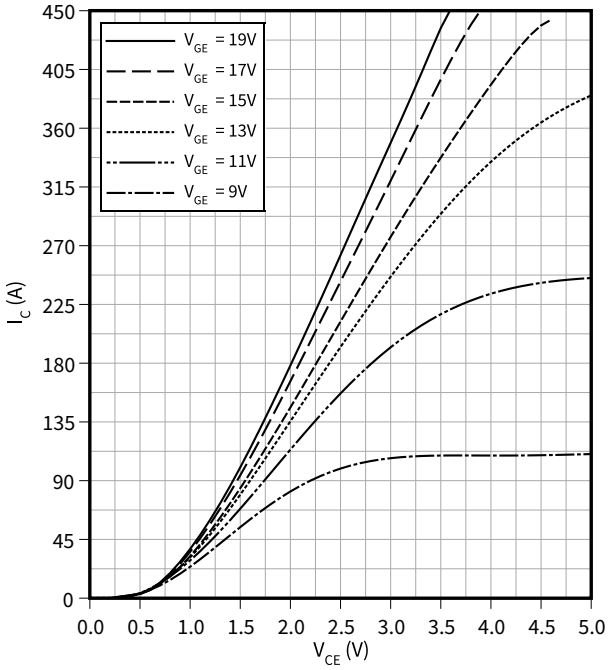
$V_{GE} = 15$ V



Output characteristic field (typical), IGBT, T2 / T3

$I_C = f(V_{CE})$

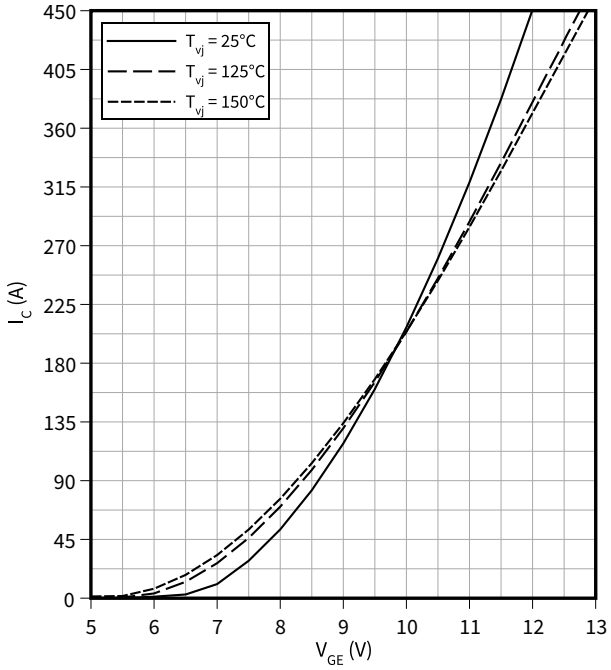
$T_{vj} = 150$ °C



Transfer characteristic (typical), IGBT, T2 / T3

$I_C = f(V_{GE})$

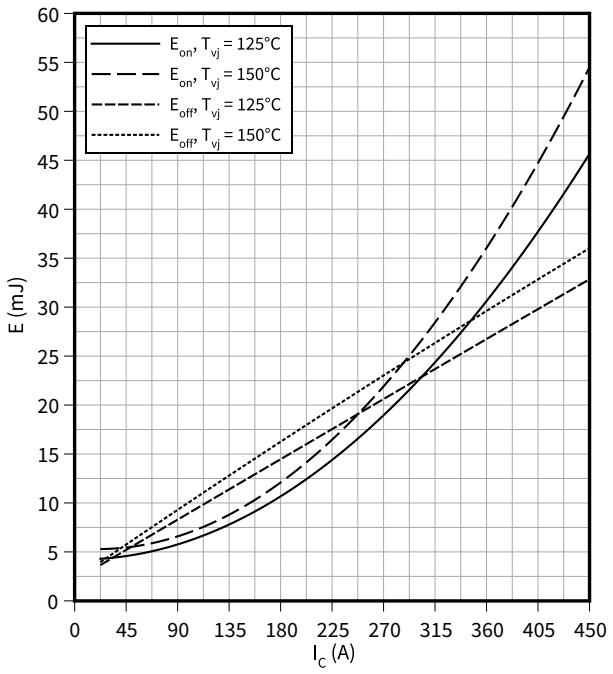
$V_{CE} = 20$ V



Switching losses (typical), IGBT, T2 / T3

$E = f(I_C)$

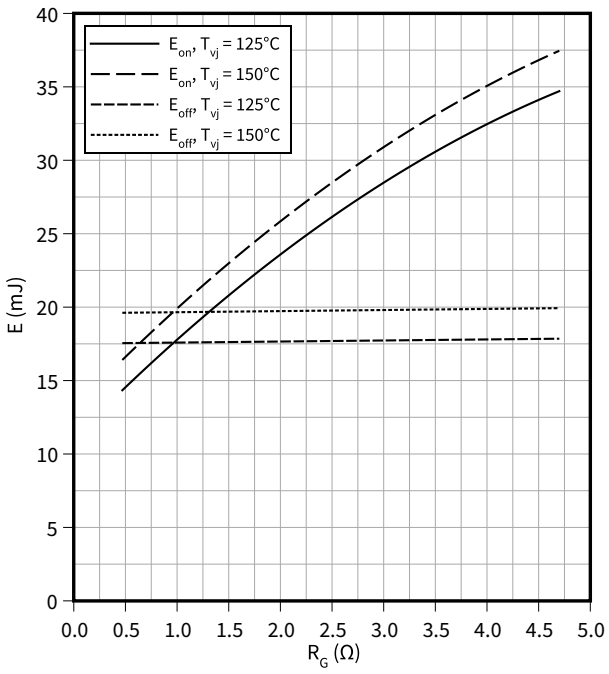
$R_{Goff} = 0.47\ \Omega$, $R_{Gon} = 0.47\ \Omega$, $V_{GE} = \pm 15$ V, $V_{CC} = 600$ V



Switching losses (typical), IGBT, T2 / T3

$E = f(R_G)$

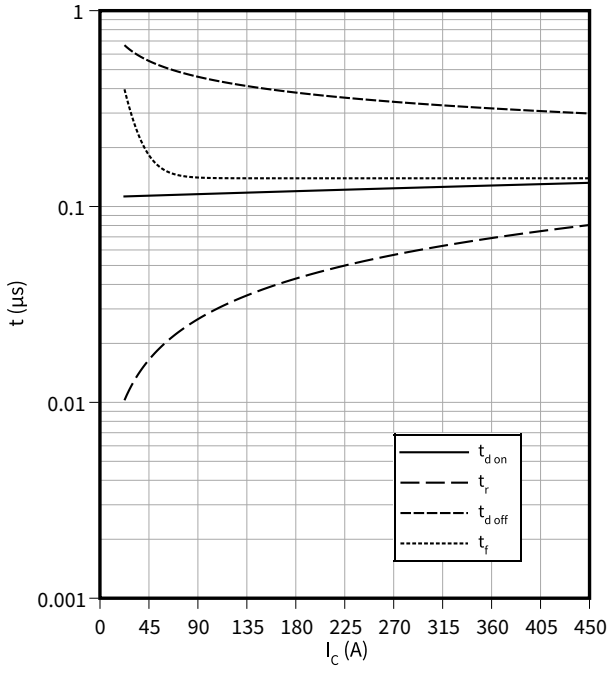
$I_C = 225$ A, $V_{CC} = 600$ V, $V_{GE} = -15 / 15$ V



Switching times (typical), IGBT, T2 / T3

$t = f(I_C)$

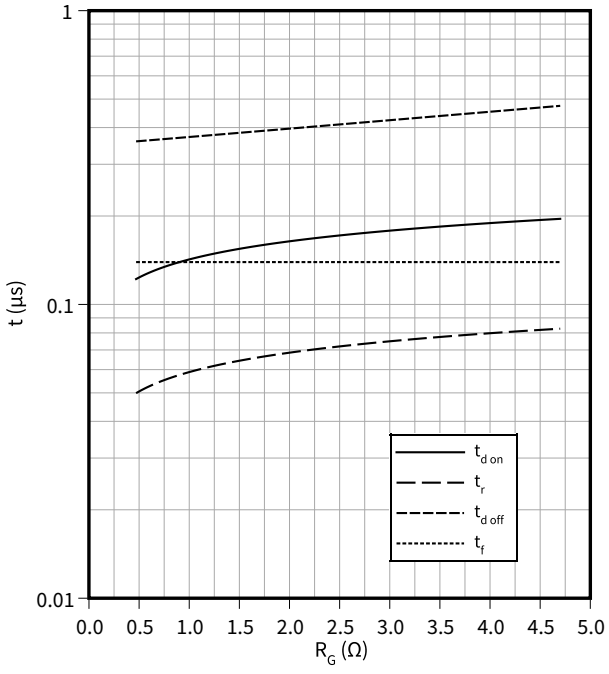
$R_{Goff} = 0.47\ \Omega$, $R_{Gon} = 0.47\ \Omega$, $V_{GE} = \pm 15$ V, $V_{CC} = 600$ V, $T_{vj} = 150$ °C



Switching times (typical), IGBT, T2 / T3

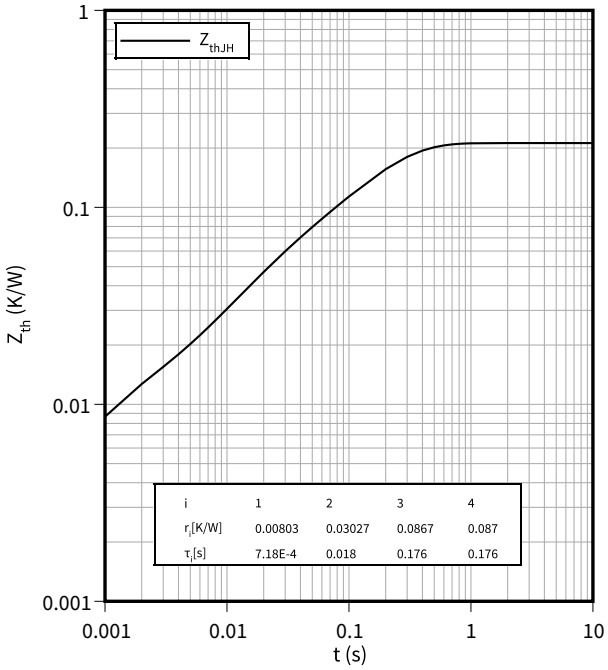
$t = f(R_G)$

$V_{GE} = \pm 15$ V, $I_C = 225$ A, $V_{CC} = 600$ V, $T_{vj} = 150$ °C



Transient thermal impedance , IGBT, T2 / T3

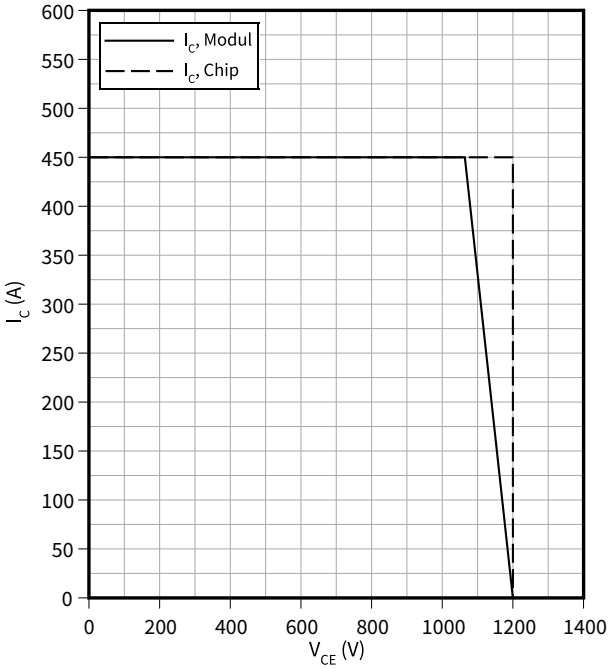
$Z_{th} = f(t)$



Reverse bias safe operating area (RBSOA), IGBT, T2 / T3

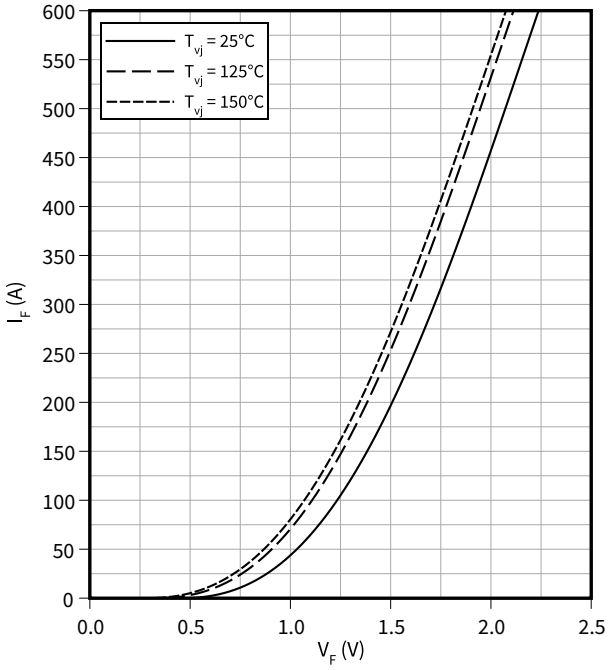
$I_C = f(V_{CE})$

$R_{Goff} = 0.47\ \Omega$, $V_{GE} = \pm 15$ V, $T_{vj} = 150$ °C



Forward characteristic (typical), Diode, D1 / D4

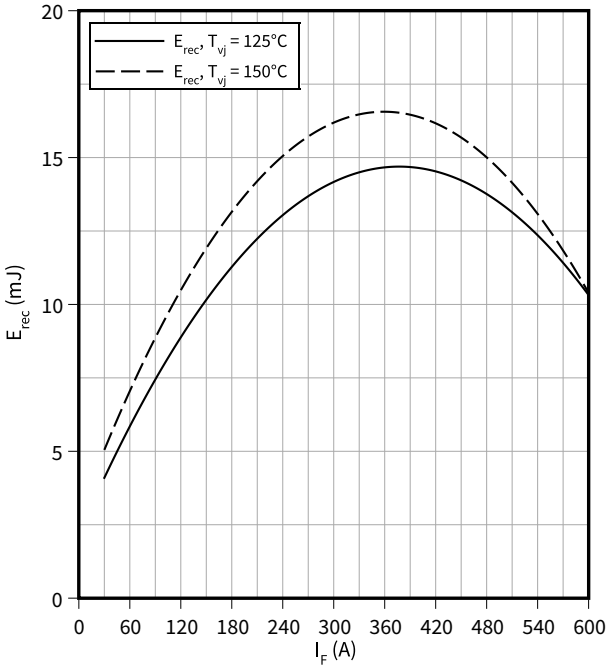
$I_F = f(V_F)$



Switching losses (typical), Diode, D1 / D4

$E_{rec} = f(I_F)$

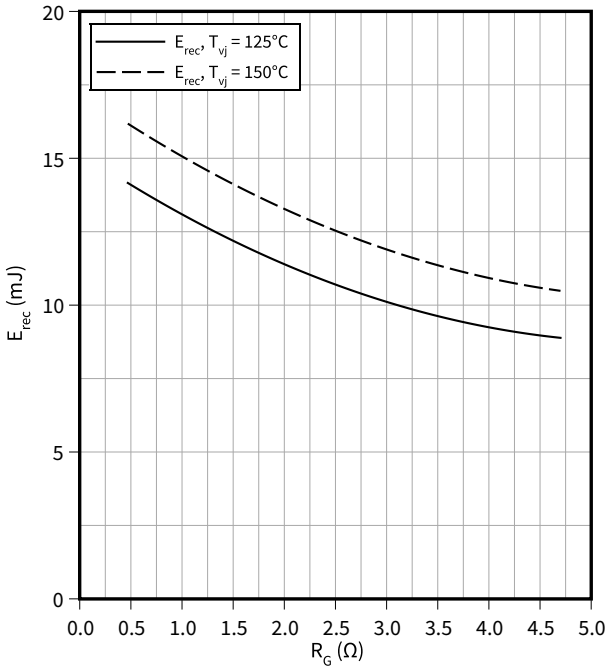
$R_G = 0.47\ \Omega$, $V_{CC} = 600$ V



Switching losses (typical), Diode, D1 / D4

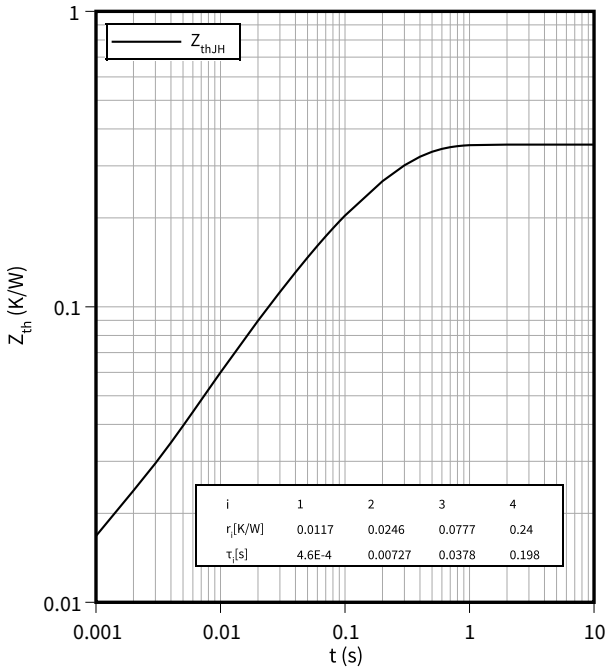
$E_{rec} = f(R_G)$

$I_F = 300\ A$, $V_{CC} = 600\ V$



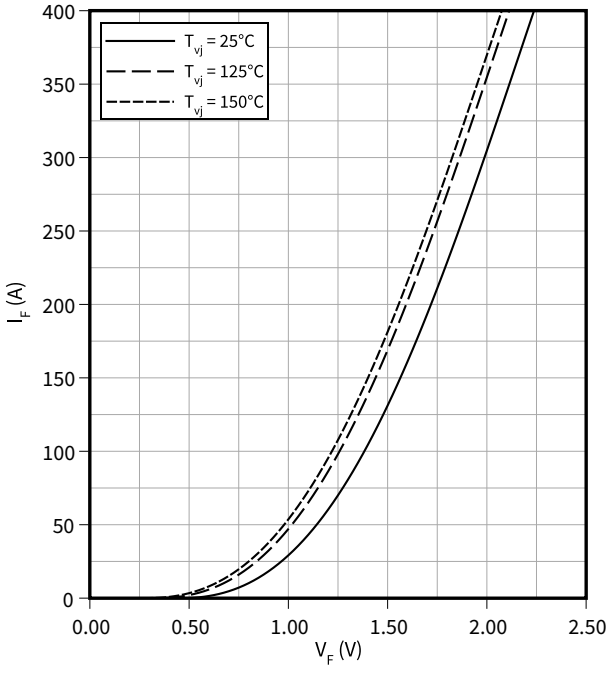
Transient thermal impedance, Diode, D1 / D4

$Z_{th} = f(t)$



Forward characteristic (typical), Diode, D2 / D3

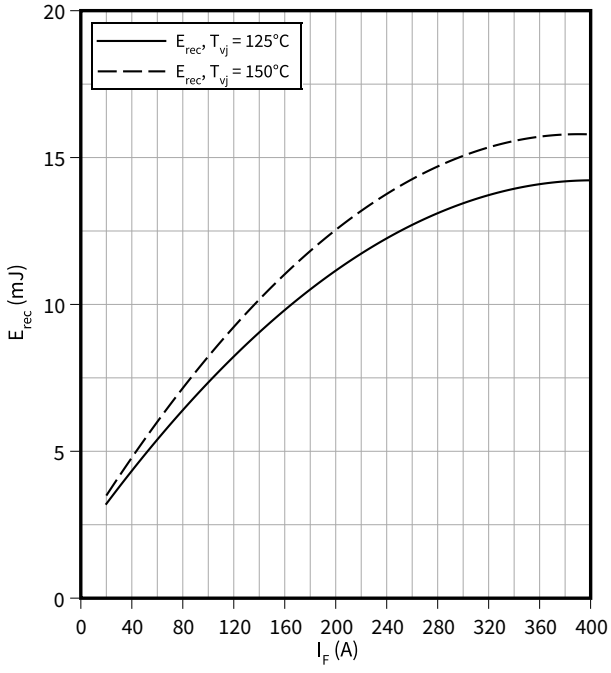
$I_F = f(V_F)$



Switching losses (typical), Diode, D2 / D3

$E_{rec} = f(I_F)$

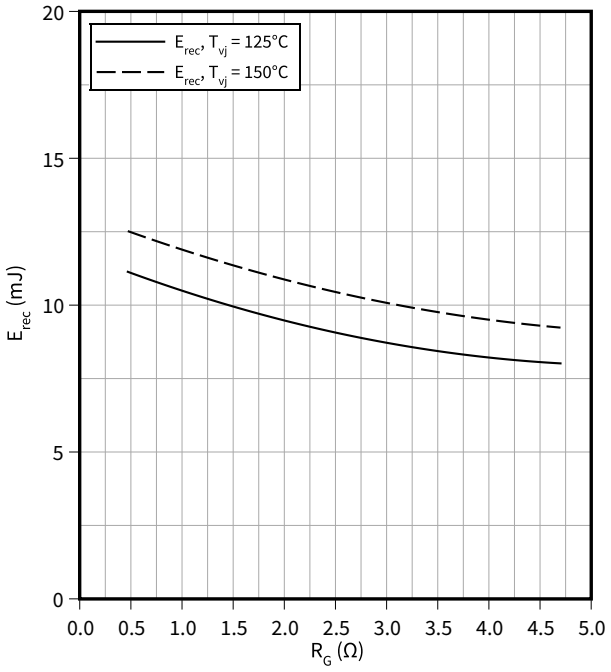
$R_{Gon} = 0.47\ \Omega$, $V_{CC} = 600\ V$



Switching losses (typical), Diode, D2 / D3

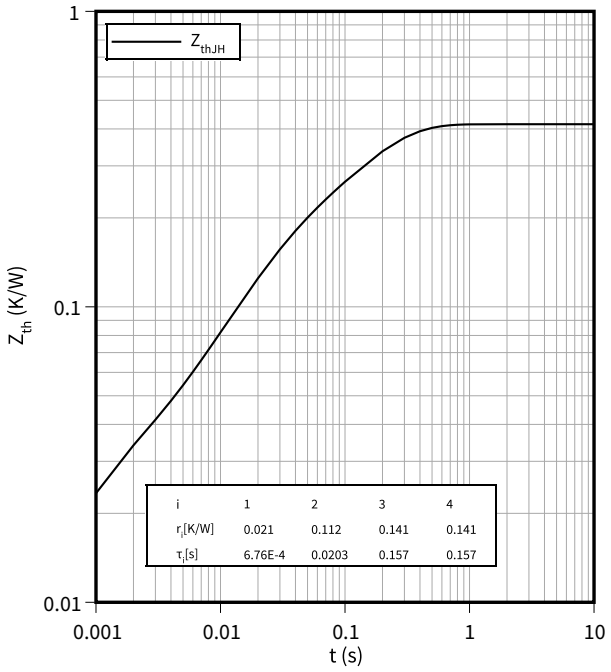
$E_{rec} = f(R_G)$

$I_F = 200\ A, V_{CC} = 600\ V$



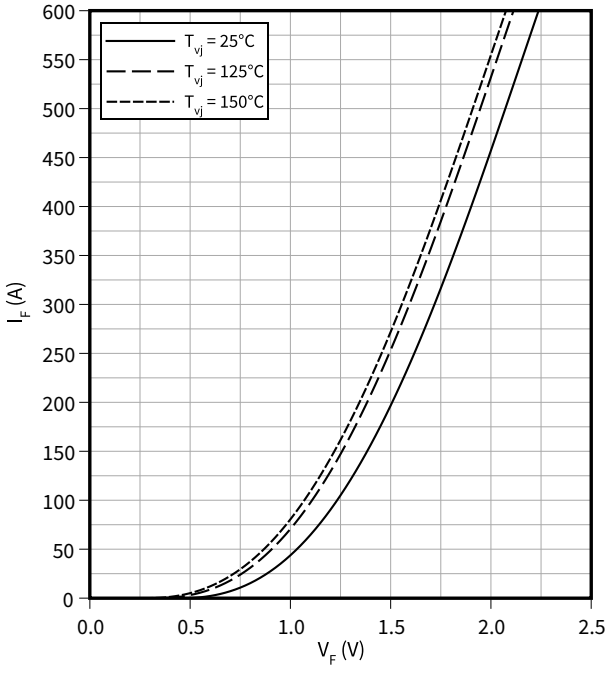
Transient thermal impedance, Diode, D2 / D3

$Z_{th} = f(t)$



Forward characteristic (typical), Diode, D5 / D6

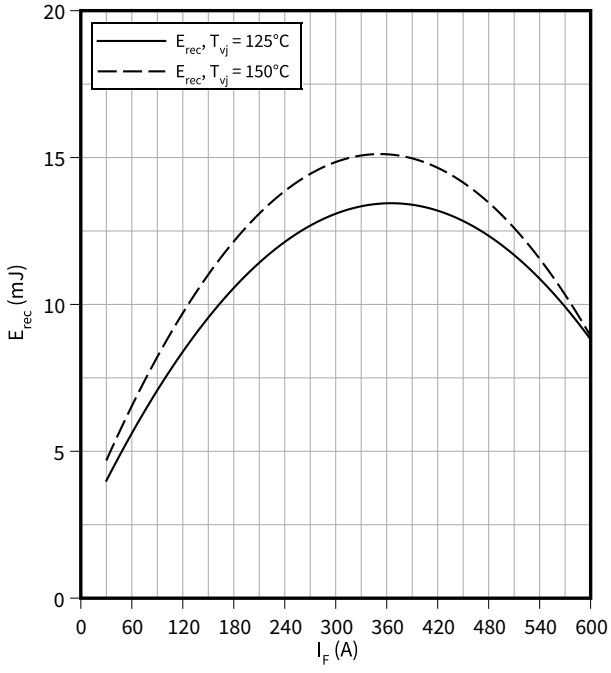
$I_F = f(V_F)$



Switching losses (typical), Diode, D5 / D6

$E_{rec} = f(I_F)$

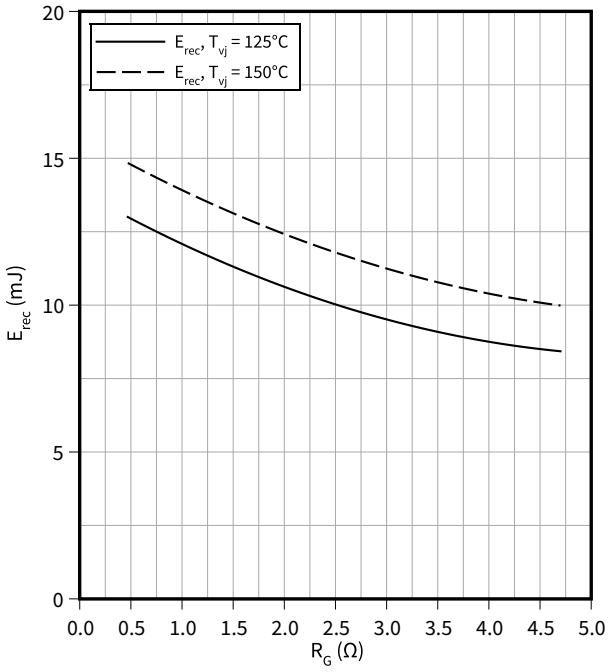
$R_G = 0.47\ \Omega, V_{CC} = 600\ V$



Switching losses (typical), Diode, D5 / D6

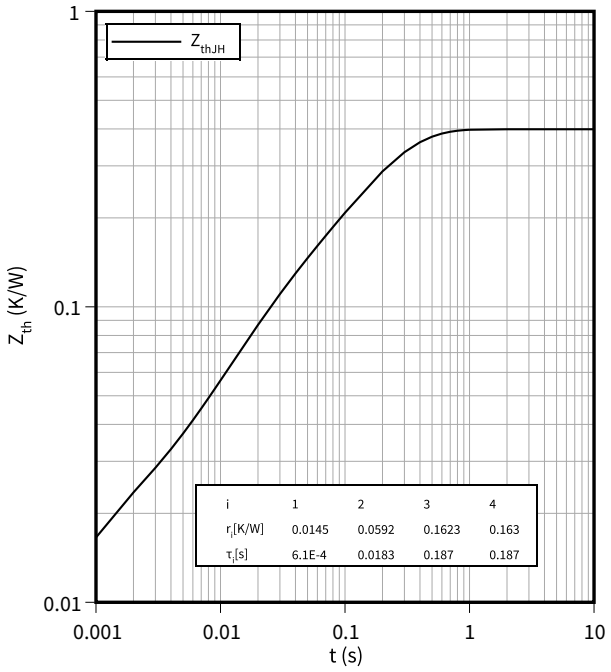
$E_{rec} = f(R_G)$

$I_F = 300\ A, V_{CC} = 600\ V$



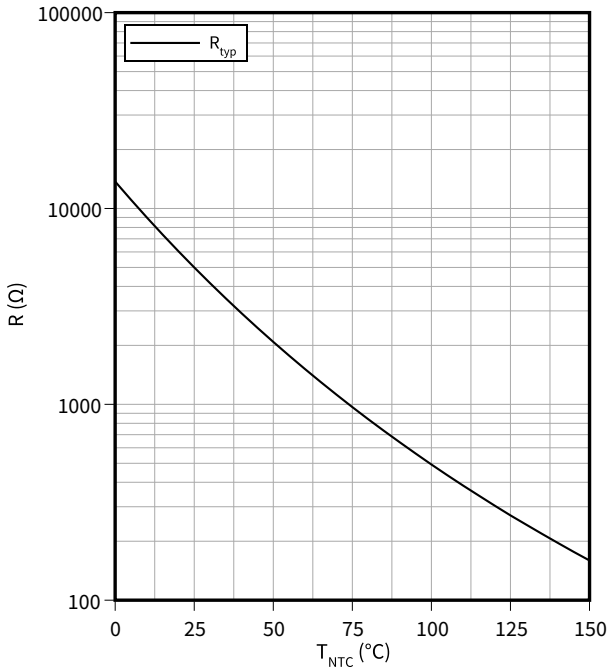
Transient thermal impedance, Diode, D5 / D6

$Z_{th} = f(t)$



Temperature characteristic (typical), NTC-Thermistor

$R = f(T_{NTC})$



9 Circuit diagram

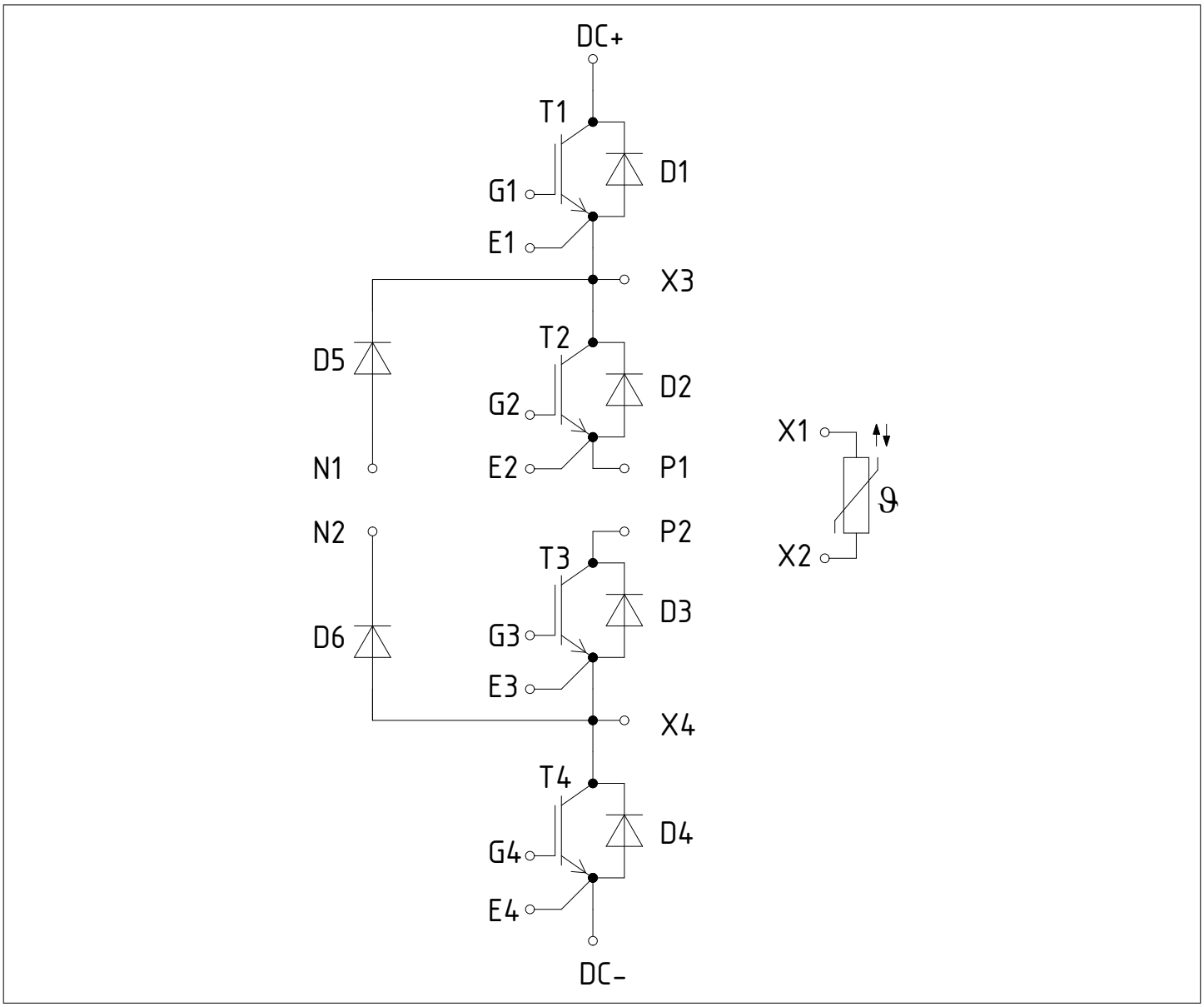


Figure 1

10 Package outlines

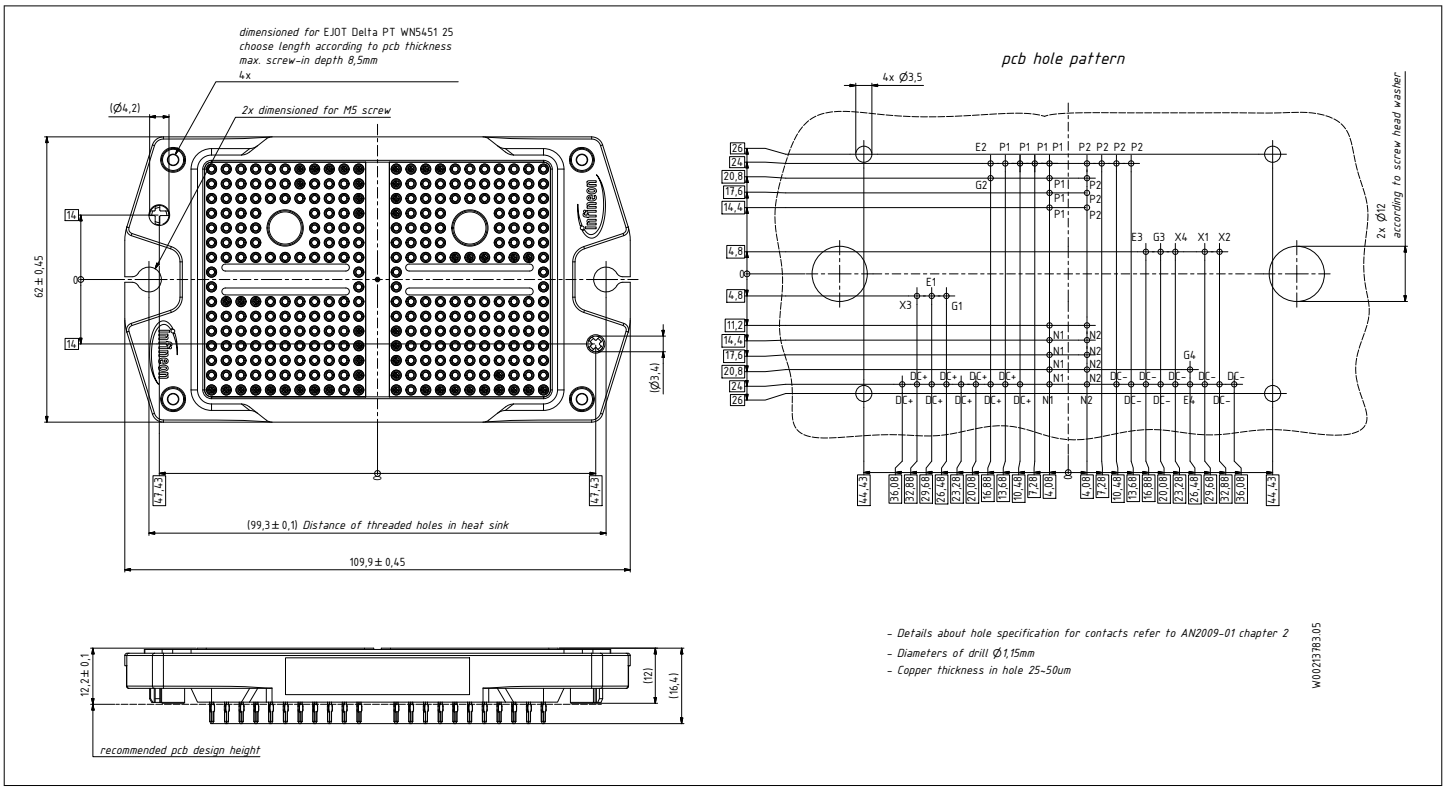


Figure 2

11 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	*Content* Module serial number Module material number Production order number Date code (production year) Date code (production week)	*Digit* 1 – 5 6 - 11 12 - 19 20 – 21 22 – 23	*Example* 71549 142846 55054991 15 30
Example	715491428465505499115 30		715491428465505499115 30

Figure 3

Revision history

Document version	Date of release	Description of changes
0.10	2022-09-16	Initial version
1.00	2023-02-13	Final datasheet

Trademarks

All referenced product or service names and trademarks are the property of their respective owners.

Edition 2023-02-13

Published by

Infineon Technologies AG

81726 Munich, Germany

Do you have a question about any aspect of this document?

Email: erratum@infineon.com

Document reference
IFX-ABB158-002

Important notice

The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffenheitsgarantie").

With respect to any examples, hints or any typical values stated herein and/or any information regarding the application of the product, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

In addition, any information given in this document is subject to customer's compliance with its obligations stated in this document and any applicable legal requirements, norms and standards concerning customer's products and any use of the product of Infineon Technologies in customer's applications.

The data contained in this document is exclusively intended for technically trained staff. It is the responsibility of customer's technical departments to evaluate the suitability of the product for the intended application and the completeness of the product information given in this document with respect to such application.

Warnings

Due to technical requirements products may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by Infineon Technologies in a written document signed by authorized representatives of Infineon Technologies, Infineon Technologies' products may not be used in any applications where a failure of the product or any consequences of the use thereof can reasonably be expected to result in personal injury.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for IGBT Modules ***category:***

Click to view products by Infineon ***manufacturer:***

Other Similar products are found below :

F3L400R07ME4_B22 F3L400R12PT4_B26 FB20R06W1E3_B11 FD300R12KE3 FD300R12KS4_B5 FD400R12KE3 FF100R12KS4 FF150R12KE3G FF200R06KE3 FF200R06YE3 FF300R06KE3_B2 FF600R12IP4V FF800R17KP4_B2 FF900R12IE4V FP06R12W1T4_B3 FP100R07N3E4 FP100R07N3E4_B11 FP10R06W1E3_B11 FP10R12W1T4_B11 FP10R12YT3 FP15R12W2T4 FP15R12YT3 FP20R06W1E3 FP30R06W1E3 FP40R12KT3G FP75R06KE3 FS10R12YE3 FS150R07PE4 FS150R12PT4 FS150R17N3E4_B11 FS20R06W1E3_B11 FS30R06W1E3_B11 FS75R12KE3G FS75R12W2T4_B11 FZ1600R17HP4_B2 FZ300R12KE3G FZ400R17KE3 FZ400R17KE4 FZ600R65KE3 DF1000R17IE4D_B2 APTGT75DA60T1G DZ800S17K3 F12-25R12KT4G F3L200R12W2H3_B11 F3L300R12ME4_B22 F3L75R07W2E3_B11 F4-150R12KS4 F475R07W1H3B11ABOMA1 FD1400R12IP4D FD400R12KE3_B5