

分割式ACP-3S三电平ANPC模块 Split ACP-3S 3-Level ANPC Module

特性

Features

- 分割式三电平ANPC模块
Split 3-Level ANPC Module
- 标准Easy 3B封装
Standard Easy 3B Package
- 低电感布局
Low Inductive Layout
- 低 V_{CEsat} /低开关损耗
Low V_{CEsat} / Low Switching Losses
- 低关断电压应力
Low Turn-off Voltage Stress
- 带铜基板
With Copper Baseplate

应用

Application

- 储能/PCS
- 光伏逆变器/Solar Inverter

关键参数[T2&T3/D2&D3]

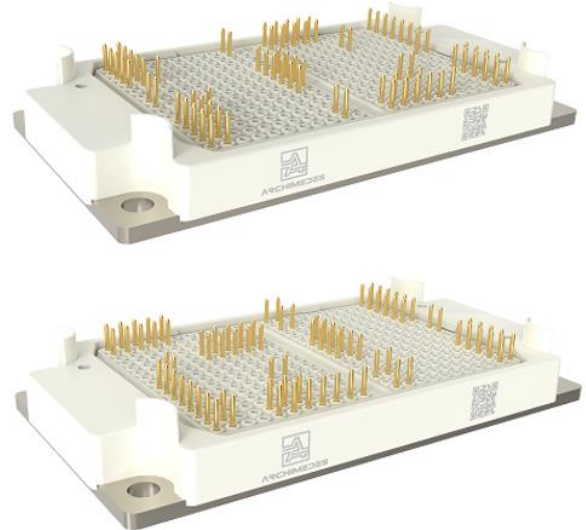
Key Parameters

Parameter		Symbol	Value	Unit
集电极－发射极电压 Collector-emitter voltage		V_{CES}	1200	V
连续集电极直流电流 Continuous DC collector current		I_{Cnom}	800	A
集电极重复峰值电流 Repetitive peak collector current		I_{CRM}	1600	A
集电极－发射极 饱和电压 Collector-Emitter saturation voltage	$T_{vj}=25^{\circ}C$	$*V_{CEsat}$	1.78	V
	$T_{vj}=150^{\circ}C$		2.31	
IGBT结－壳热阻 IGBT thermal resistance		R_{thJC}	0.050	K/W
Diode结－壳热阻 Diode thermal resistance		R_{thJC}	0.093	K/W
开通损耗能量 Turn-on energy	$T_{vj}=25^{\circ}C$	E_{on}	12.3	mJ
	$T_{vj}=150^{\circ}C$		14.3	
关断损耗能量 Turn-off energy	$T_{vj}=25^{\circ}C$	E_{off}	23.6	
	$T_{vj}=150^{\circ}C$		32.3	

*Terminal to Terminal Data

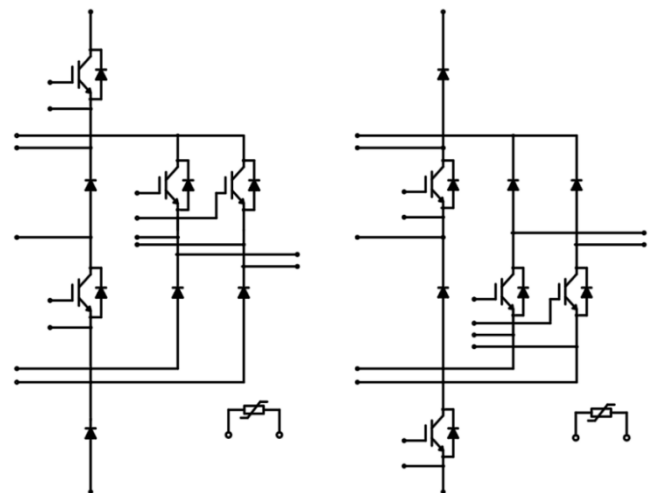
模块外观

Module Appearance



电路拓扑

Circuit Topology



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封装/Package
表 1 绝缘参数/Insulation coordination

Parameter	Conditions	Symbol	Value	Unit
绝缘测试电压 Isolation test voltage	DC, t = 3s	V_{ISOL}	5.0	kV
	RMS, f = 50Hz, t = 60s		3.5	
模块基板材料 Material of module baseplate			Cu	
内部绝缘 Internal isolation	基本绝缘 (class 1, IEC 61140) Basic insulation (class 1, IEC 61140)		Al ₂ O ₃	
爬电距离 Creepage distance		d_{Creep}	> 12.7	mm
电气间隙 Clearance		d_{Clear}	> 12.7	mm
相对电痕指数 Comparative tracking index		CTI	≥ 600	

表 2 特征值/Characteristic values

Parameter	Conditions	Symbol	Value			Unit
			Min.	Typ.	Max.	
杂散电感, 模块 Stray inductance module		L_{sCE}		30		nH
储存温度 Storage temperature		T_{stg}	-40		125	°C
允许开关的温度范围 Temperature under switching conditions		$T_{vj(op)}$	-40		150	°C
重量 Weight		G		260		g

IGBT/ T2&T3
表 3 最大标定值/Maximum rated values

Parameter	Conditions	Symbol	Value	Unit
集电极—发射极电压 Collector-emitter voltage	$T_{vj} = 25^{\circ}\text{C}$	V_{CES}	1200	V
连续集电极直流电流 Continuous DC collector current	$T_C = 80^{\circ}\text{C}, T_{vj\max} = 175^{\circ}\text{C}$	I_{CDC}	540	A
集电极重复峰值电流 Repetitive peak collector current	t_p limited by $T_{vj\max}$	I_{CRM}	1600	A
总耗散功率 Total Power dissipation	$T_C = 80^{\circ}\text{C}, T_{vj} = T_{vj\max}$	P_{tot}	880	W
栅极—发射极电压 Gate-emitter peak voltage		V_{GES}	+30/-20	V

表 4 特征值/Characteristic values

Parameter	Conditions		Symbol	Value			Unit
				Min.	Typ.	Max.	
集电极-发射极饱和电压 Collector-emitter saturation voltage	$I_C = 800\text{A}, V_{GE} = 15\text{V}$	$T_{vj} = 25^{\circ}\text{C}$	$V_{CE(sat)}$		1.78		V
		$T_{vj} = 125^{\circ}\text{C}$			2.21		
		$T_{vj} = 150^{\circ}\text{C}$			2.31		
栅极阈值电压 Gate threshold voltage	$I_C = 8.0\text{mA}, V_{GE} = V_{CE}, T_{vj} = 25^{\circ}\text{C}$		V_{GEth}		4.7		V
栅极电荷 Gate charge	$V_{GE} = +15/-8\text{V}, V_{CE} = 600\text{V}$		Q_G		3.89		μC
输入电容 Input capacitance	$f = 100\text{KHz}, T_{vj} = 25^{\circ}\text{C}, V_{CE} = 25\text{V}, V_{GE} = 0\text{V}$		C_{ies}		93.4		nF
输出电容 Onput capacitance	$f = 100\text{KHz}, T_{vj} = 25^{\circ}\text{C}, V_{CE} = 25\text{V}, V_{GE} = 0\text{V}$		C_{oes}		2.0		nF
反向传输电容 Reverse transfer capacitance	$f = 100\text{KHz}, T_{vj} = 25^{\circ}\text{C}, V_{CE} = 25\text{V}, V_{GE} = 0\text{V}$		C_{res}		0.62		nF
集电极—发射极截止电流 Collector-emitter cut-off current	$V_{CE} = 1200\text{V}, V_{GE} = 0\text{V}, T_{vj} = 25^{\circ}\text{C}$		I_{CES}			500	μA
栅极—发射极漏电流 Gate-emitter leakage current	$V_{CE} = 0\text{V}, V_{GE} = 20\text{V}, T_{vj} = 25^{\circ}\text{C}$		I_{GES}			1000	nA
开通延迟时间（感性负载） Turn-on delay time (inductive load)	$V_{CE} = 650\text{V}$ $I_C = 400\text{A}$ $V_{GE} = +15/-8\text{V}$	$T_{vj} = 25^{\circ}\text{C}$	$t_{d(on)}$		95		ns
		$T_{vj} = 125^{\circ}\text{C}$			93		
		$T_{vj} = 150^{\circ}\text{C}$			92		
上升时间（感性负载） Rise time (inductive load)	$R_{Gon} = 4.3\Omega$ $R_{Goff} = 6.8\Omega$ $C_{GE} = 10\text{nF}$ $L_s = 40\text{nH}$ Inductive Load	$T_{vj} = 25^{\circ}\text{C}$	t_r		61		ns
		$T_{vj} = 125^{\circ}\text{C}$			63		
		$T_{vj} = 150^{\circ}\text{C}$			63		
关断延迟时间（感性负载） Turn-off delay time (inductive load)	$(R_{Gon}, R_{Goff}, C_{GE})$ 为 T2-1/ T2-2/T3-1/T3-2 驱动配置	$T_{vj} = 25^{\circ}\text{C}$	$t_{d(off)}$		630		ns
		$T_{vj} = 125^{\circ}\text{C}$			680		
		$T_{vj} = 150^{\circ}\text{C}$			685		

下降时间（感性负载） Fall time (inductive load)		$T_{vj} = 25^{\circ}\text{C}$	t_f		80		ns
		$T_{vj} = 125^{\circ}\text{C}$			125		
		$T_{vj} = 150^{\circ}\text{C}$			135		
开通损耗能量（每脉冲） Turn-on energy loss per pulse		$T_{vj} = 25^{\circ}\text{C}$	E_{on}		12.3		mJ
		$T_{vj} = 125^{\circ}\text{C}$			14.0		
		$T_{vj} = 150^{\circ}\text{C}$			14.3		
关断损耗能量（每脉冲） Turn-off energy loss per pulse		$T_{vj} = 25^{\circ}\text{C}$	E_{off}		23.6		mJ
		$T_{vj} = 125^{\circ}\text{C}$			31.3		
		$T_{vj} = 150^{\circ}\text{C}$			32.3		
结-壳热阻 Thermal resistance, junction to case			R_{thJC}		0.050		K/W
壳-散热器热阻 Thermal resistance, case to heatsink	每个IGBT, $\lambda_{grease} = 3.4\text{W}/(\text{m}^{\circ}\text{K})$ Per IGBT, $\lambda_{grease} = 3.4\text{W}/(\text{m}^{\circ}\text{K})$		R_{thCH}		0.058		K/W
最高结温 $T_{vj\max}$			$T_{vj\max}$		175		$^{\circ}\text{C}$

Diode/ D2&D3

表 5 最大标定值/Maximum rated values

Parameter	Conditions	Symbol	Value	Unit
反向重复峰值电压 Repetitive peak reverse voltage	$T_{vj} = 25^{\circ}\text{C}$	V_{RRM}	1200	V
连续正向直流电流 Continuous DC forward current	$T_C = 80^{\circ}\text{C}$, $T_{vj\max} = 175^{\circ}\text{C}$	I_F	430	A
总耗散功率 Total Power dissipation	$T_C = 80^{\circ}\text{C}$, $T_{vj} = T_{vj\max}$	P_{tot}	601	W
正向重复峰值电流 Repetitive peak forward current	t_p limited by $T_{vj\max}$	I_{FRM}	800	A

表 6 特征值/Characteristic values

Parameter	Conditions	Symbol	Value			Unit
			Min.	Typ.	Max.	
正向电压 Forward voltage	$I_F = 400\text{A}$, $V_{GE} = 0\text{V}$	V_F		1.43		V
				1.71		
				1.82		
反向恢复时间 Reverse recovery time	$V_R = 650\text{V}$ $I_F = 400\text{A}$ $V_{GE} = -8\text{V}$ $R_{Gon} = 4.3\Omega$	t_{rr}		33		ns
				34		
				35		
反向恢复峰值电流 Peak reverse recovery current	$C_{GE} = 10\text{nF}$ $L_s = 40\text{nH}$ Inductive Load	I_{RM}		120		A
				125		
				127		

反向恢复电荷 Recovered charge	(R _{Gon} , C _{GE} 为T2-1/ T2-2/T3-1/T3-2驱动配置)	T _{vj} = 25°C	Q _r		2.8		μC
		T _{vj} = 125°C			3.1		
		T _{vj} = 150°C			3.3		
反向恢复损耗（每脉冲） Reverse recovery energy		T _{vj} = 25°C	E _{rec}		0.70		mJ
		T _{vj} = 125°C			0.72		
		T _{vj} = 150°C			0.75		
结—壳热阻 Thermal resistance, junction to case			R _{thJC}		0.093		K/W
壳—散热器热阻 Thermal resistance, case to heatsink	每个FRD, λ _{grease} = 3.4W/(m*K) Per FRD, λ _{grease} = 3.4W/(m*K)		R _{thCH}		0.065		K/W
最高结温 T _{vj max}			T _{vj max}		175		°C

IGBT/ T1&T4&T5&T6

表 7 最大标定值/Maximum rated values

Parameter	Conditions	Symbol	Value	Unit
集电极—发射极电压 Collector-emitter voltage	T _{vj} = 25°C	V _{CES}	1050	V
连续集电极直流电流 Continuous DC collector current	T _C = 80°C, T _{vj max} = 175°C	I _{CDC}	320	A
集电极重复峰值电流 Repetitive peak collector current	t _p limited by T _{vj max}	I _{CRM}	800	A
总耗散功率 Total Power dissipation	T _C = 80°C, T _{vj} = T _{vj max}	P _{tot}	403	W
栅极—发射极电压 Gate-emitter peak voltage		V _{GES}	+30/-20	V

表 8 特征值/Characteristic values

Parameter	Conditions	Symbol	Value			Unit
			Min.	Typ.	Max.	
集电极-发射极饱和电压 Collector-emitter saturation voltage	I _C = 400A, V _{GE} = 15V	T _{vj} = 25°C		1.37		V
		T _{vj} = 125°C		1.50		
		T _{vj} = 150°C		1.54		
栅极阈值电压 Gate threshold voltage	I _C = 2.0mA, V _{GE} = V _{CE} , T _{vj} = 25°C	V _{GEth}		4.0		V
栅极电荷 Gate charge	V _{GE} = +15/-8V, V _{CE} = 600V	Q _G		2.48		μC
输入电容 Input capacitance	f = 100KHz, T _{vj} = 25°C, V _{CE} = 25V, V _{GE} = 0V	C _{ies}		40.9		nF
输出电容 Onput capacitance	f = 100KHz, T _{vj} = 25°C, V _{CE} = 25V, V _{GE} = 0V	C _{oes}		0.67		nF
反向传输电容 Reverse transfer capacitance	f = 100KHz, T _{vj} = 25°C, V _{CE} = 25V, V _{GE} = 0V	C _{res}		0.25		nF
集电极—发射极截止电流 Collector-emitter cut-off current	V _{CE} = 1100V, V _{GE} = 0V, T _{vj} = 25°C	I _{CES}			200	μA
栅极—发射极漏电流 Gate-emitter leakage current	V _{CE} = 0V, V _{GE} = 20V, T _{vj} = 25°C	I _{GES}			500	nA

结—壳热阻 Thermal resistance, junction to case		R_{thJC}		0.129		K/W
壳—散热器热阻 Thermal resistance, case to heatsink	每个IGBT, $\lambda_{grease} = 3.4W/(m^{\circ}K)$ Per IGBT, $\lambda_{grease} = 3.4W/(m^{\circ}K)$	R_{thCH}		0.107		K/W
最高结温 $T_{vj\ max}$		$T_{vj\ max}$		175		$^{\circ}C$

Diode/ D1&D4&D5&D6

表 9 最大标定值/Maximum rated values

Parameter	Conditions	Symbol	Value	Unit
反向重复峰值电压 Repetitive peak reverse voltage	$T_{vj} = 25^{\circ}C$	V_{RRM}	1200	V
连续正向直流电流 Continuous DC forward current	$T_C = 80^{\circ}C, T_{vj\ max} = 175^{\circ}C$	I_F	285	A
总耗散功率 Total Power dissipation	$T_C = 80^{\circ}C, T_{vj} = T_{vj\ max}$	P_{tot}	360	W
正向重复峰值电流 Repetitive peak forward current	t_p limited by $T_{vj\ max}$	I_{FRM}	480	A

表 10 特征值/Characteristic values

Parameter	Conditions		Symbol	Value			Unit
				Min.	Typ.	Max.	
正向电压 Forward voltage	$I_F = 240A, V_{GE} = 0V$	$T_{vj} = 25^{\circ}C$	V_F		1.12		V
		$T_{vj} = 125^{\circ}C$			1.08		
		$T_{vj} = 150^{\circ}C$			1.07		
结—壳热阻 Thermal resistance, junction to case			R_{thJC}		0.153		K/W
壳—散热器热阻 Thermal resistance, case to heatsink	每个FRD, $\lambda_{grease} = 3.4W/(m^{\circ}K)$ Per FRD, $\lambda_{grease} = 3.4W/(m^{\circ}K)$		R_{thCH}		0.111		K/W
最高结温 $T_{vj\ max}$			$T_{vj\ max}$		175		$^{\circ}C$

Diode/ D7&D8&D9&D10

表 11 最大标定值/Maximum rated values

Parameter	Conditions	Symbol	Value	Unit
反向重复峰值电压 Repetitive peak reverse voltage	$T_{vj} = 25^{\circ}C$	V_{RRM}	1200	V
连续正向直流电流 Continuous DC forward current	$T_C = 80^{\circ}C, T_{vj\ max} = 175^{\circ}C$	I_F	23	A
总耗散功率 Total Power dissipation	$T_C = 80^{\circ}C, T_{vj} = T_{vj\ max}$	P_{tot}	187	W
正向重复峰值电流 Repetitive peak forward current	t_p limited by $T_{vj\ max}$	I_{FRM}	60	A

表 12 特征值/Characteristic values

Parameter	Conditions		Symbol	Value			Unit
				Min.	Typ.	Max.	
正向电压 Forward voltage	$I_F = 30A, V_{GE} = 0V$	$T_{vj} = 25^{\circ}C$	V_F		3.04		V
		$T_{vj} = 125^{\circ}C$			2.04		
		$T_{vj} = 150^{\circ}C$			1.85		
结—壳热阻 Thermal resistance, junction to case			R_{thJC}		0.398		K/W
壳—散热器热阻 Thermal resistance, case to heatsink	每个FRD, $\lambda_{grease} = 3.4W/(m^{\circ}K)$ Per FRD, $\lambda_{grease} = 3.4W/(m^{\circ}K)$		R_{thCH}		0.110		K/W
最高结温 $T_{vj\ max}$			$T_{vj\ max}$	175			$^{\circ}C$

Diode/ D11&D12

表 13 最大标定值/Maximum rated values

Parameter	Conditions	Symbol	Value	Unit
反向重复峰值电压 Repetitive peak reverse voltage	$T_{vj} = 25^{\circ}C$	V_{RRM}	1200	V
连续正向直流电流 Continuous DC forward current	$T_C = 80^{\circ}C, T_{vj\ max} = 175^{\circ}C$	I_F	80	A
总耗散功率 Total Power dissipation	$T_C = 80^{\circ}C, T_{vj} = T_{vj\ max}$	P_{tot}	192	W
正向重复峰值电流 Repetitive peak forward current	t_p limited by $T_{vj\ max}$	I_{FRM}	120	A

表 14 特征值/Characteristic values

Parameter	Conditions		Symbol	Value			Unit
				Min.	Typ.	Max.	
正向电压 Forward voltage	$I_F = 60A, V_{GE} = 0V$	$T_{vj} = 25^{\circ}C$	V_F		3.10		V
		$T_{vj} = 125^{\circ}C$			2.08		
		$T_{vj} = 150^{\circ}C$			1.90		
结—壳热阻 Thermal resistance, junction to case			R_{thJC}		0.413		K/W
壳—散热器热阻 Thermal resistance, case to heatsink	每个FRD, $\lambda_{grease} = 3.4W/(m^{\circ}K)$ Per FRD, $\lambda_{grease} = 3.4W/(m^{\circ}K)$		R_{thCH}		0.082		K/W
最高结温 $T_{vj\ max}$			$T_{vj\ max}$	175			$^{\circ}C$

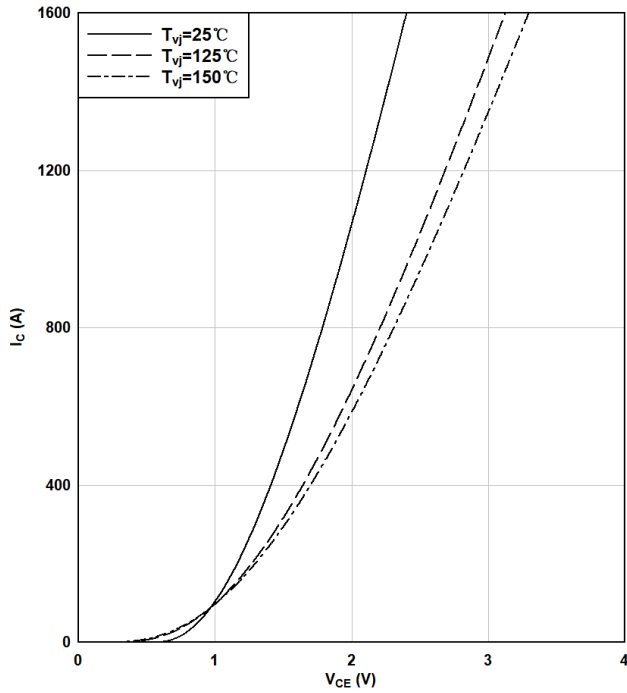
负温度系数热敏电阻/NTC-Thermistor

表 15 特征值/Characteristic values

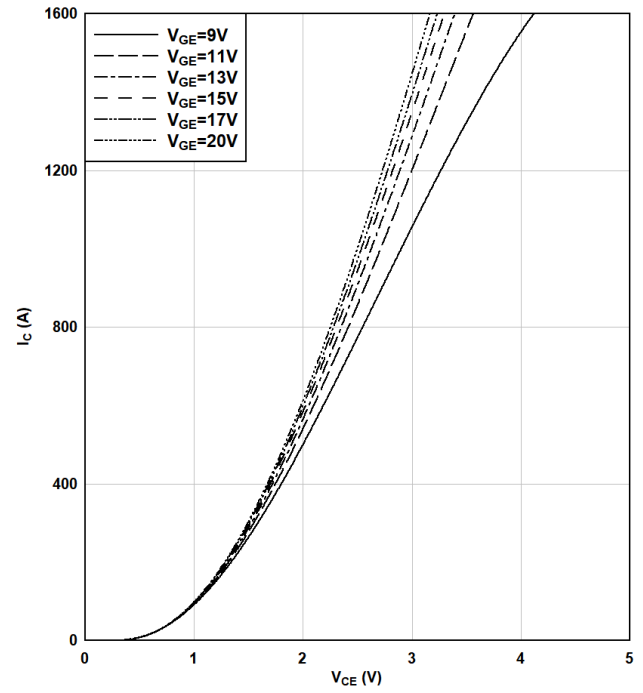
Parameter	Conditions	Symbol	Value	Unit
额定电阻值 Rated resistance	$T_{NTC} = 25\text{ }^{\circ}\text{C}$	R_{25}	5	k Ω
R ₁₀₀ 偏差 Deviation of R ₁₀₀	$T_{NTC} = 100\text{ }^{\circ}\text{C}$, $R_{100} = 493\text{ }\Omega$	$\Delta R/R$	± 5	%
耗散功率 Power dissipation	$T_{NTC} = 25\text{ }^{\circ}\text{C}$	P_{25}	20.0	mW
B-值 B-value	$R_2 = R_{25} \exp[B_{25/50}(1/T_2 - 1/(298,15\text{ K}))]$	$B_{25/50}$	3375	K
B-值 B-value	$R_2 = R_{25} \exp[B_{25/100}(1/T_2 - 1/(298,15\text{ K}))]$	$B_{25/100}$	3433	K

特征参数图表/Characteristics Diagrams

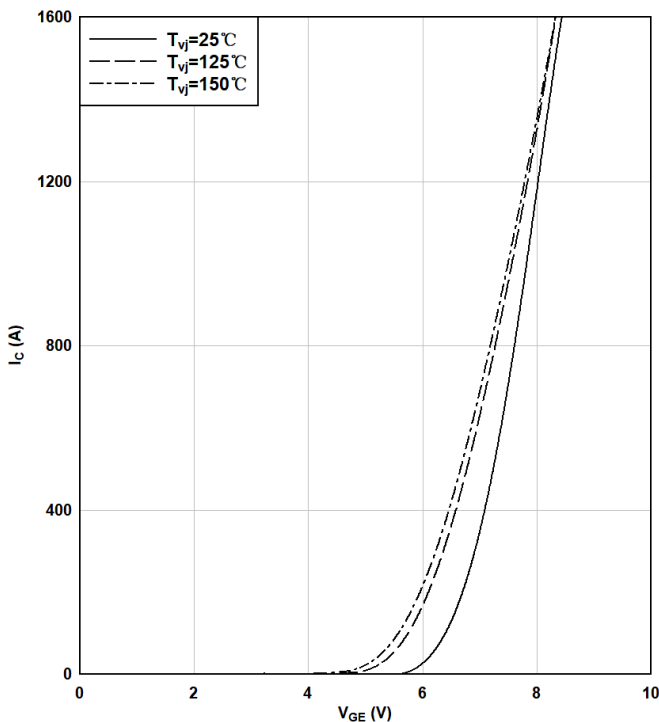
输出特性（典型），IGBT (T2/T3)
Output characteristic (typical), IGBT(T2/T3)
 $I_C = f(V_{CE})$
 $V_{GE} = 15V$



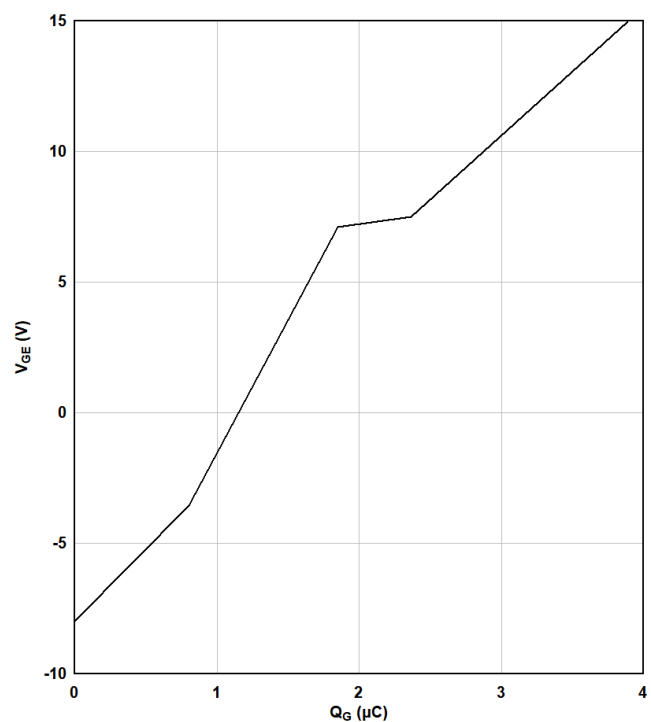
输出特性（典型），IGBT(T2/T3)
Output characteristic field (typical), IGBT(T2/T3)
 $I_C = f(V_{CE})$
 $T_{vj} = 150^\circ C$



传输特性（典型），IGBT(T2/T3)
Transfer characteristic (typical), IGBT(T2/T3)
 $I_C = f(V_{GE})$
 $V_{CE} = 20V$

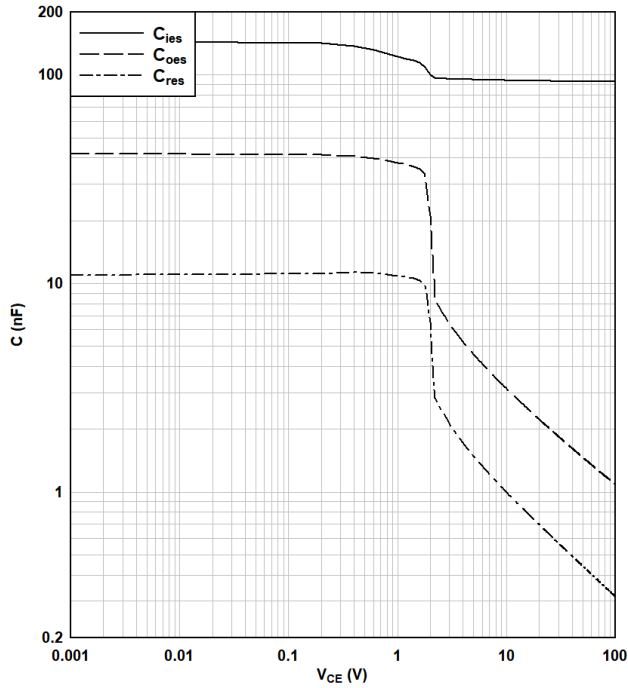


栅极电荷曲线（典型），IGBT(T2/T3)
Capacitance Characteristic (typical), IGBT(T2/T3)
 $V_{GE} = f(Q_G)$
 $V_{CE} = 600V, I_C = 800A$

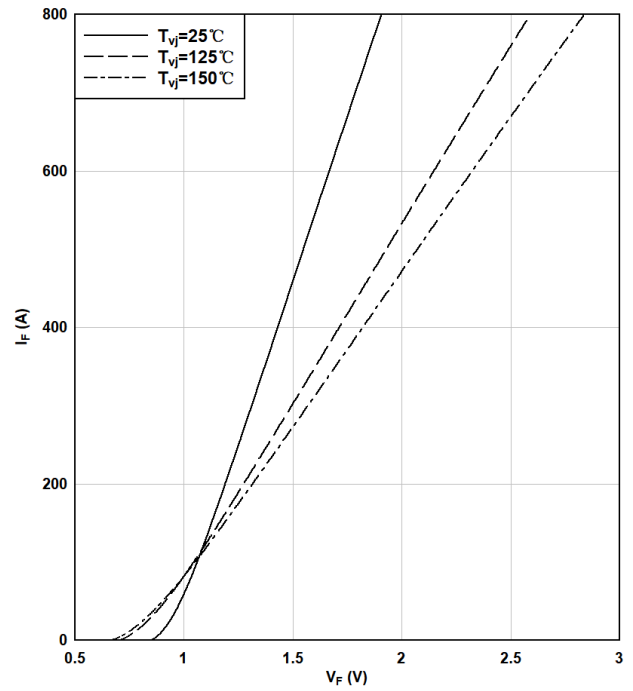


特征参数图表/Characteristics Diagrams

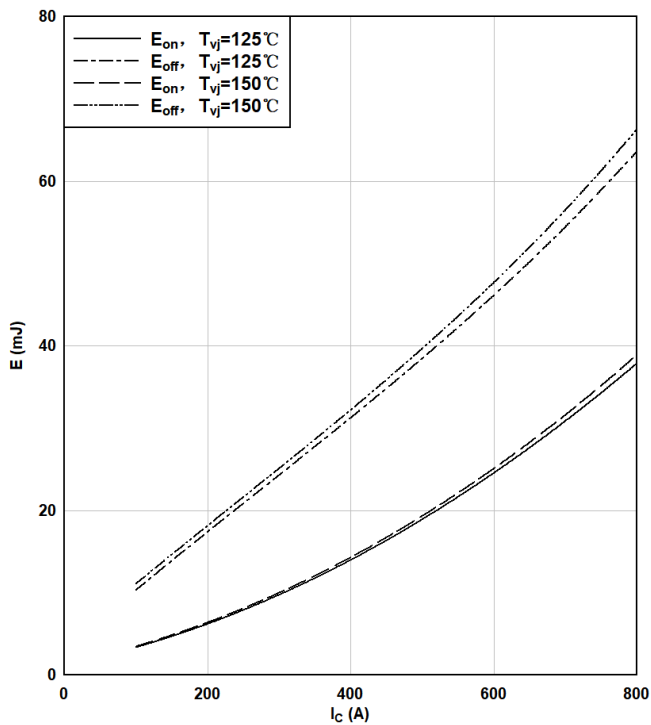
电容曲线（典型），IGBT(T2/T3)
Capacitance Characteristic（典型），IGBT(T2/T3)
 $C = f(V_{CE})$
 $V_{GE} = 0V, f = 100KHz$



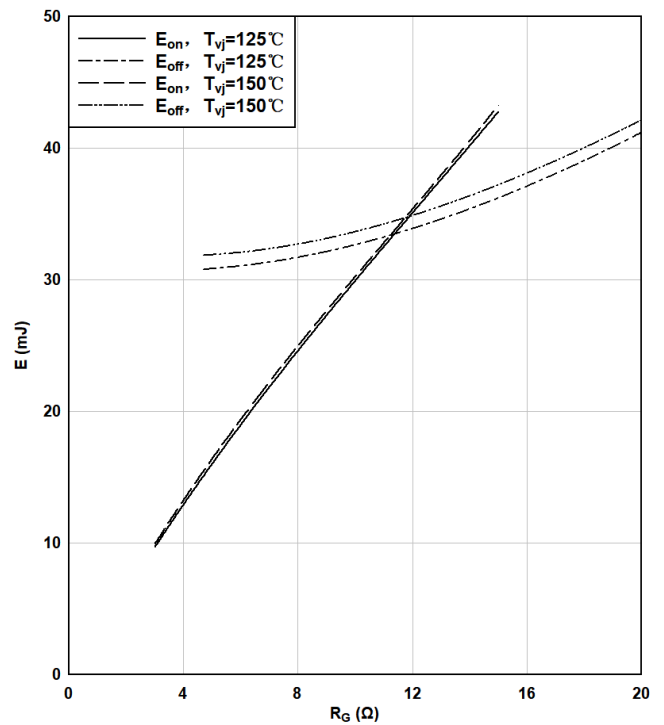
正向特性（典型），二极管(D2/D3)
Forward characteristic (typical), Diode(D2/D3)
 $I_F = f(V_F)$



开关损耗（典型），IGBT(T2/T3)
Switching losses (typical), IGBT(T2/T3)
 $E = f(I_C)$
 $V_{CE} = 650V, R_{Gon} = 4.3\Omega, R_{Goff} = 6.8\Omega, C_{GE} = 10nF$

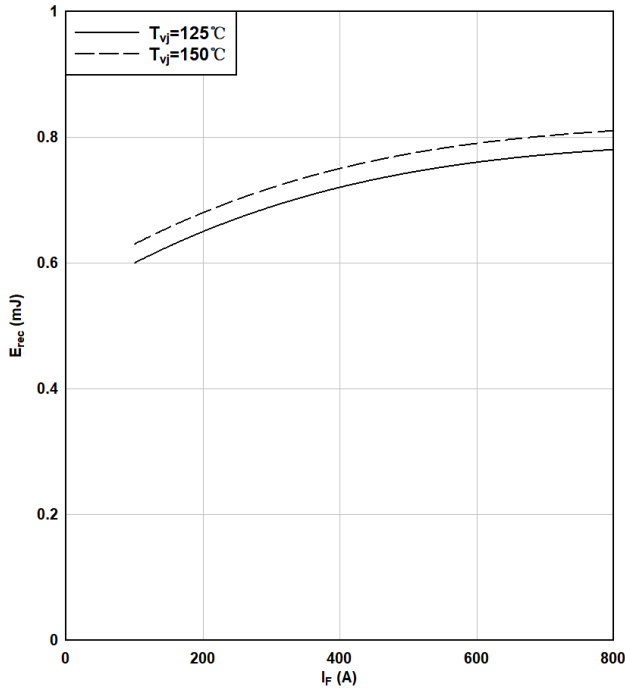


开关损耗（典型），IGBT(T2/T3)
Switching losses (typical), IGBT(T2/T3)
 $E = f(R_G)$
 $V_{CE} = 650V, I_C = 400A, C_{GE} = 10nF$

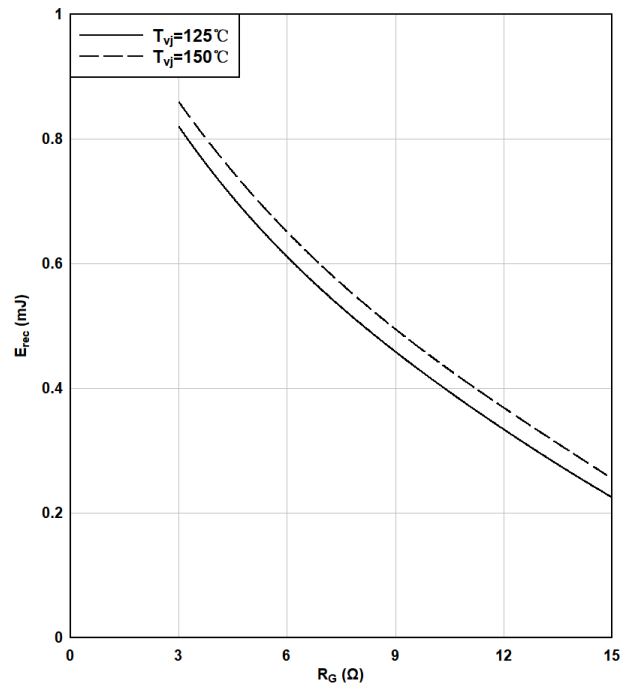


特征参数图表/Characteristics Diagrams

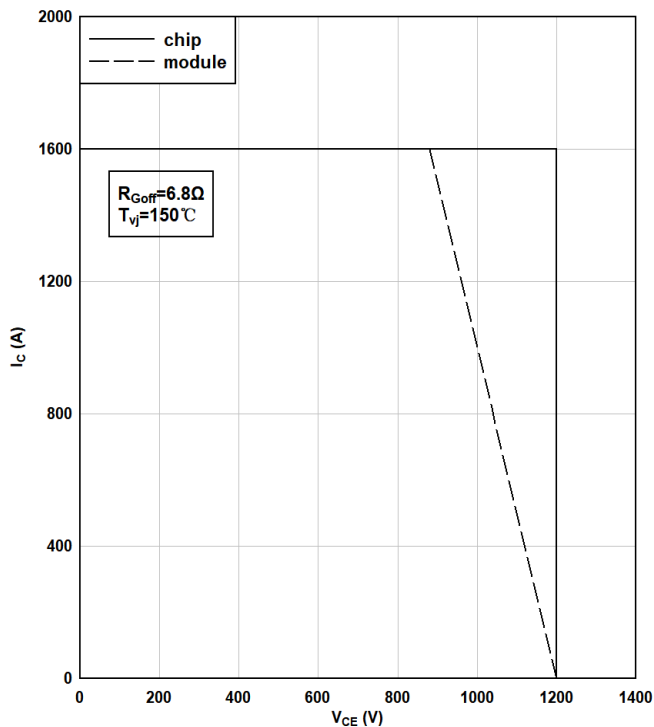
开关损耗（典型），二极管(D2/D3)
Switching losses (typical), Diode(D2/D3)
 $E_{rec} = f(I_F)$
 $V_{CE} = 650V$, $R_{Gon} = 4.3\Omega$, $C_{GE} = 10nF$



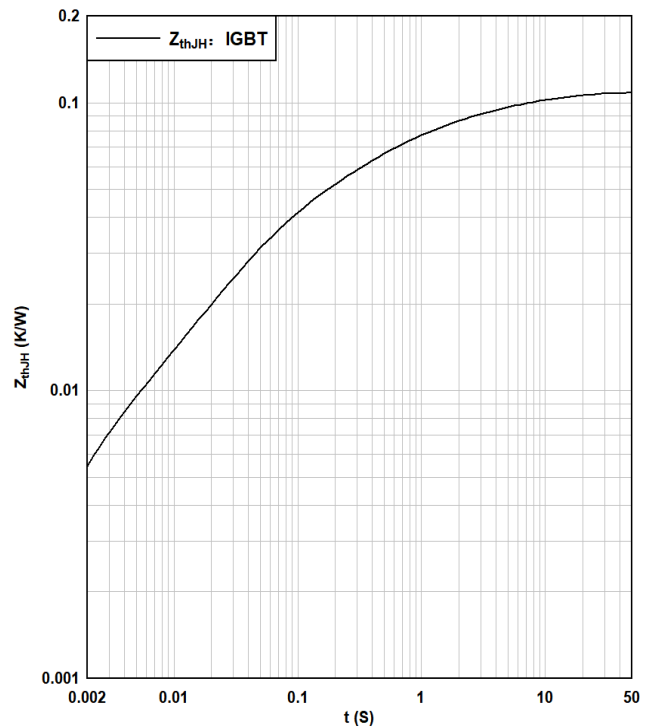
开关损耗（典型），二极管(D2/D3)
Switching losses (typical), Diode(D2/D3)
 $E_{rec} = f(R_G)$
 $V_{CE} = 650V$, $I_C = 400A$, $C_{GE} = 10nF$



反偏安全工作区 IGBT, IGBT(T2/T3)
Reverse bias safe operating area IGBT, IGBT(T2/T3)
 $I_C = f(V_{CE})$

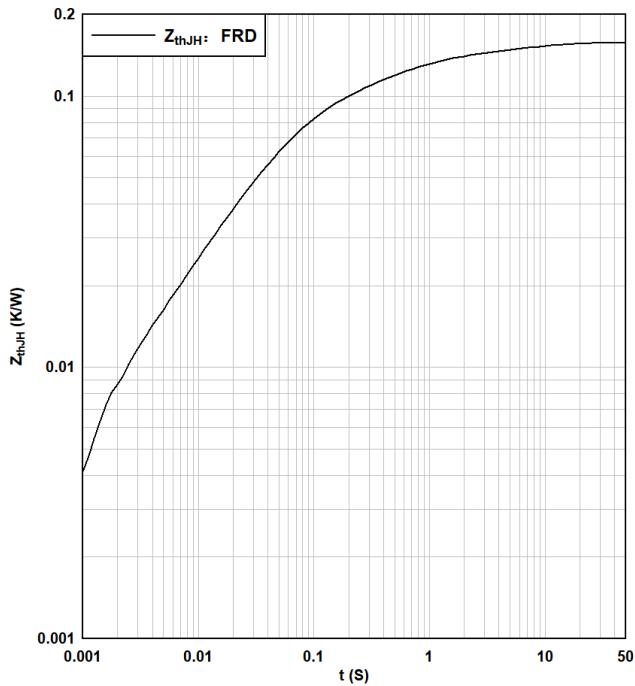


瞬态热阻抗, IGBT(T2/T3)
Transient thermal impedance, IGBT(T2/T3)
 $Z_{thJH} = f(t)$

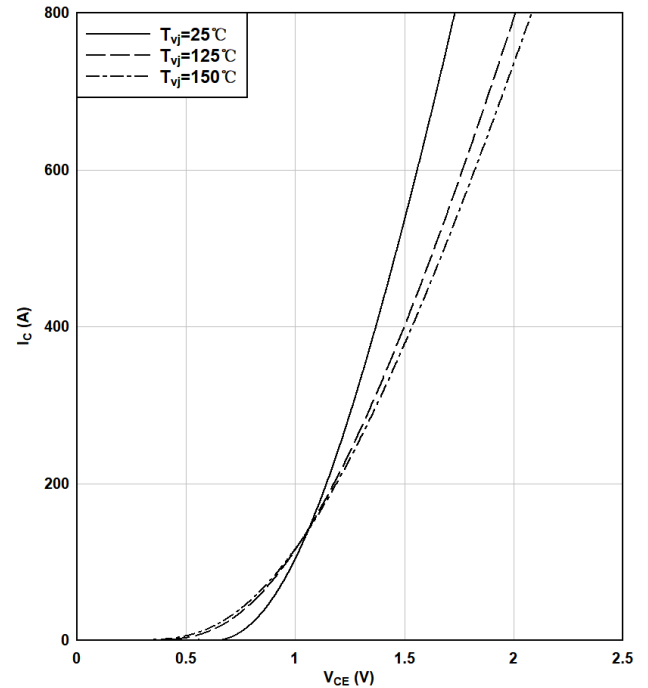


特征参数图表/Characteristics Diagrams

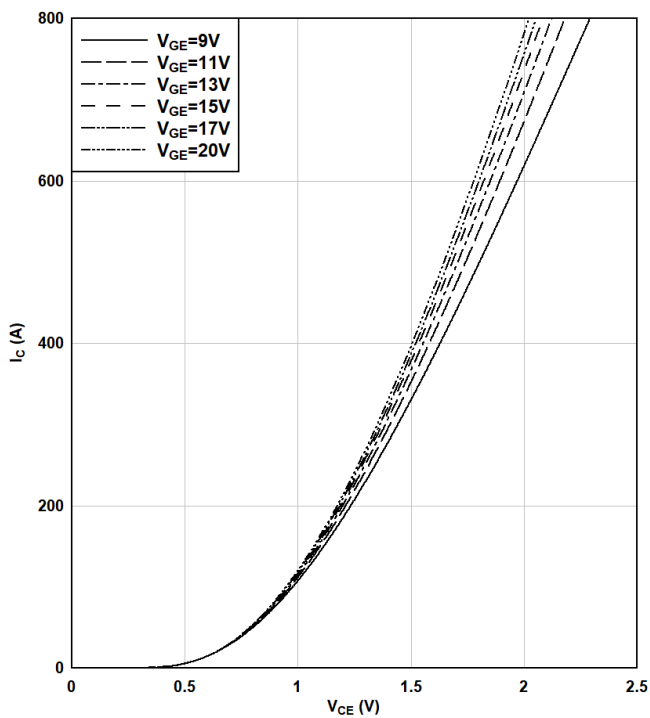
瞬态热阻抗, FRD(D2/D3)
Transient thermal impedance, FRD(D2/D3)
 $Z_{thJH} = f(t)$



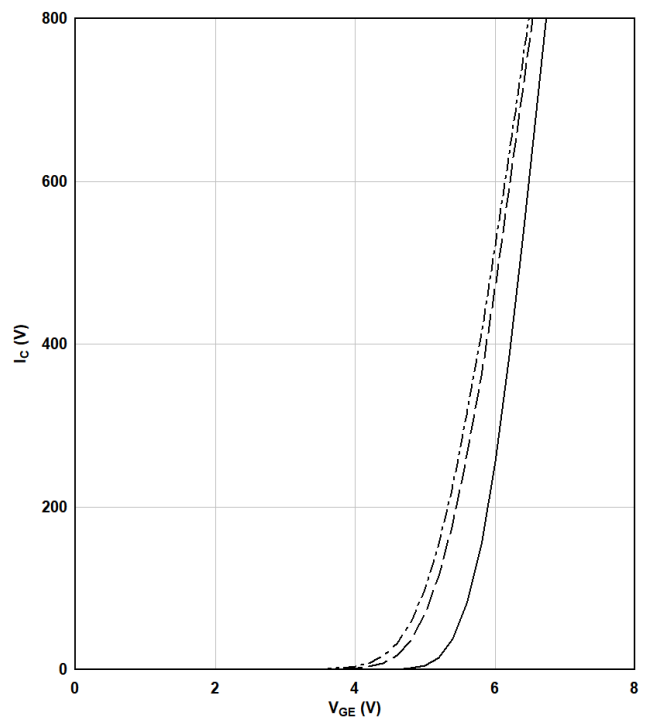
输出特性 (典型), IGBT (T1/T4/T5/T6)
Output characteristic (typical), IGBT(T1/T4/T5/T6)
 $I_C = f(V_{CE})$
 $V_{GE} = 15V$



输出特性 (典型), IGBT(T1/T4/T5/T6)
Output characteristic field (typical), IGBT(T1/T4/T5/T6)
 $I_C = f(V_{CE})$
 $T_{vj}=150^{\circ}C$

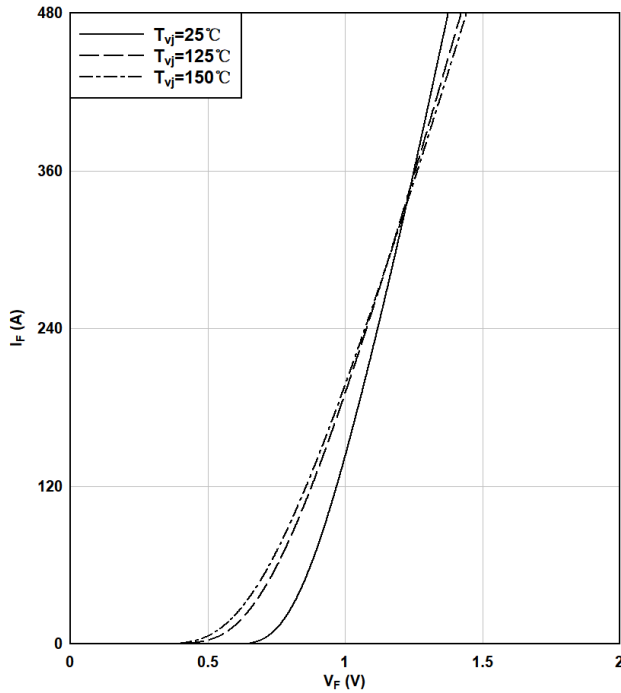


传输特性 (典型), IGBT(T1/T4/T5/T6)
Transfer characteristic (typical), IGBT(T1/T4/T5/T6)
 $I_C = f(V_{GE})$
 $V_{CE} = 20V$

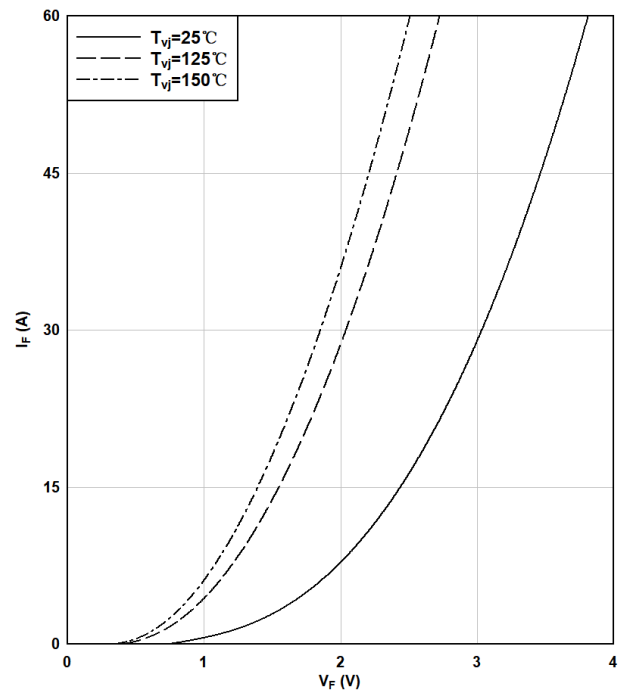


特征参数图表/Characteristics Diagrams

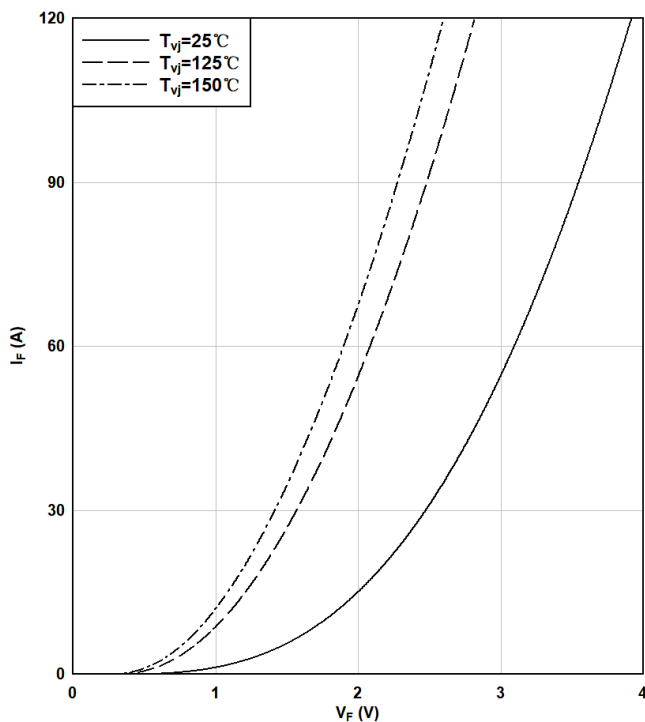
正向特性（典型），二极管(D1/D4/D5/D6)
Forward characteristic (typical), Diode(D1/D4/D5/D6)
 $I_F = f(V_F)$



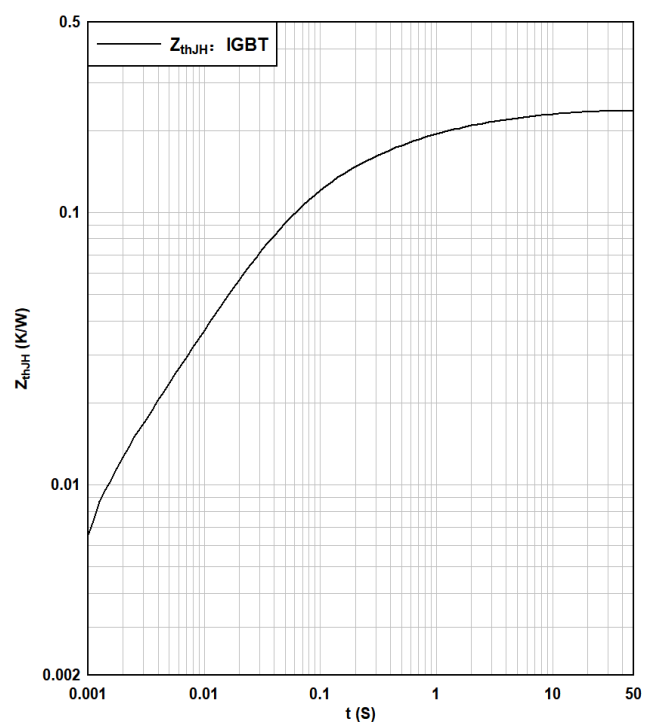
正向特性（典型），二极管(D7/D8/D9/D10)
Forward characteristic (typical), Diode(D7/D8/D9/D10)
 $I_F = f(V_F)$



正向特性（典型），二极管(D11/D12)
Forward characteristic (typical), Diode(D11/D12)
 $I_F = f(V_F)$

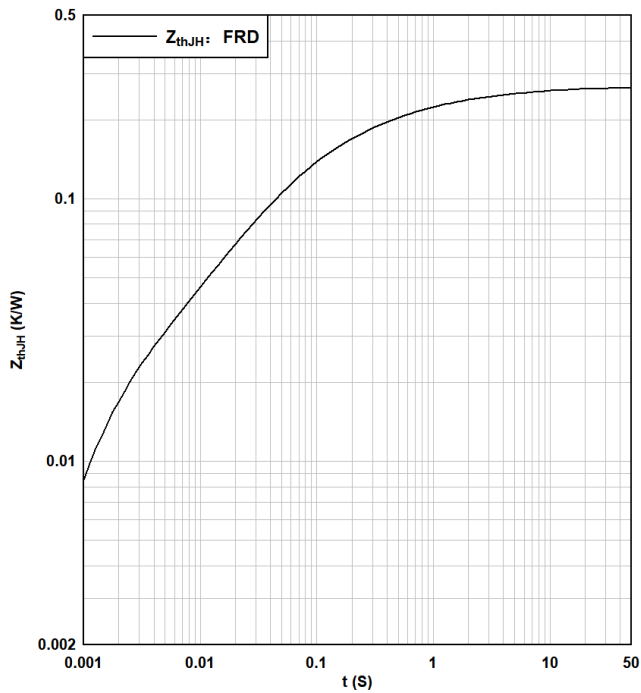


瞬态热阻抗, IGBT(T1/T4/T5/T6)
Transient thermal impedance, IGBT(T1/T4/T5/T6)
 $Z_{thJH} = f(t)$

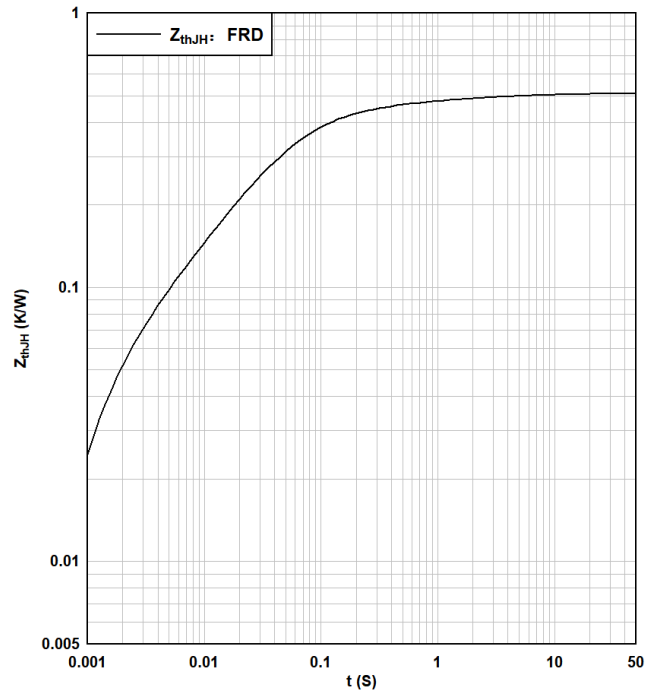


特征参数图表/Characteristics Diagrams

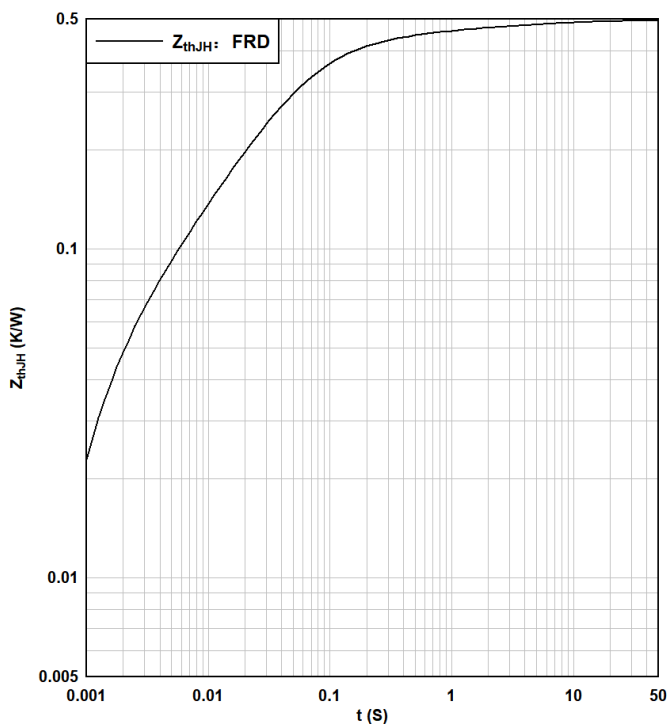
瞬态热阻抗, FRD(D1/D4/D5/D6)
Transient thermal impedance, FRD(D1/D4/D5/D6)
 $Z_{thJH} = f(t)$



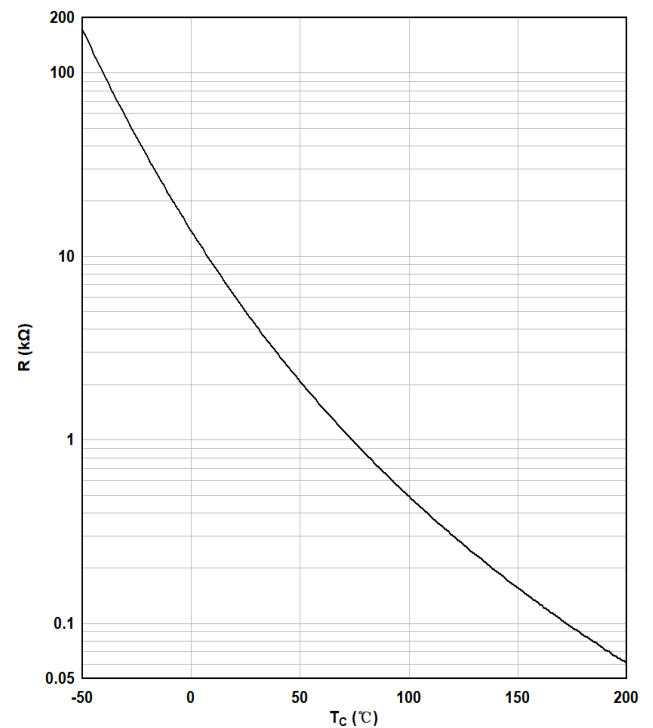
瞬态热阻抗, FRD(D7/D8/D9/D10)
Transient thermal impedance, FRD(D7/D8/D9/D10)
 $Z_{thJH} = f(t)$



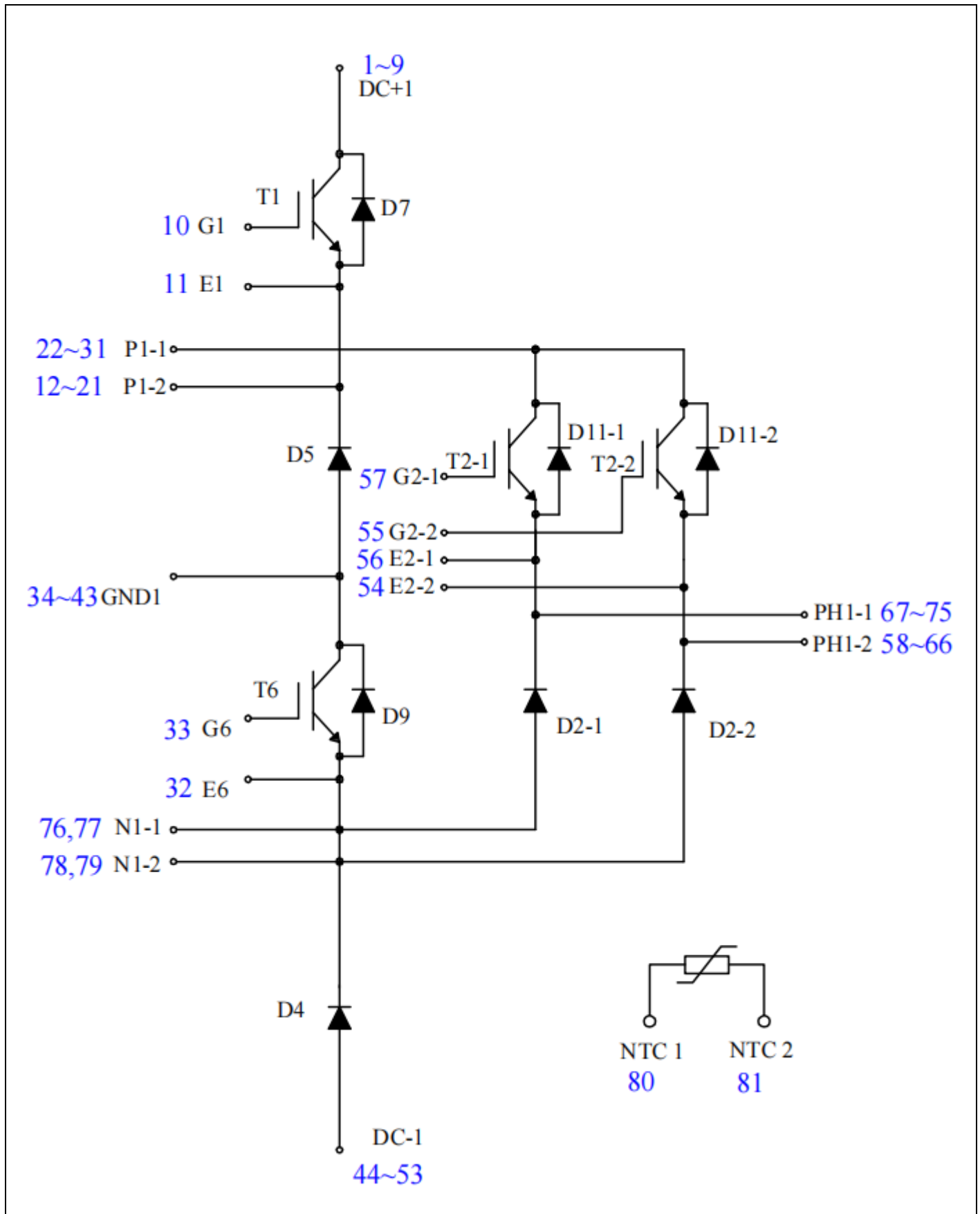
瞬态热阻抗, FRD(D11/D12)
Transient thermal impedance, FRD(D11/D12)
 $Z_{thJH} = f(t)$



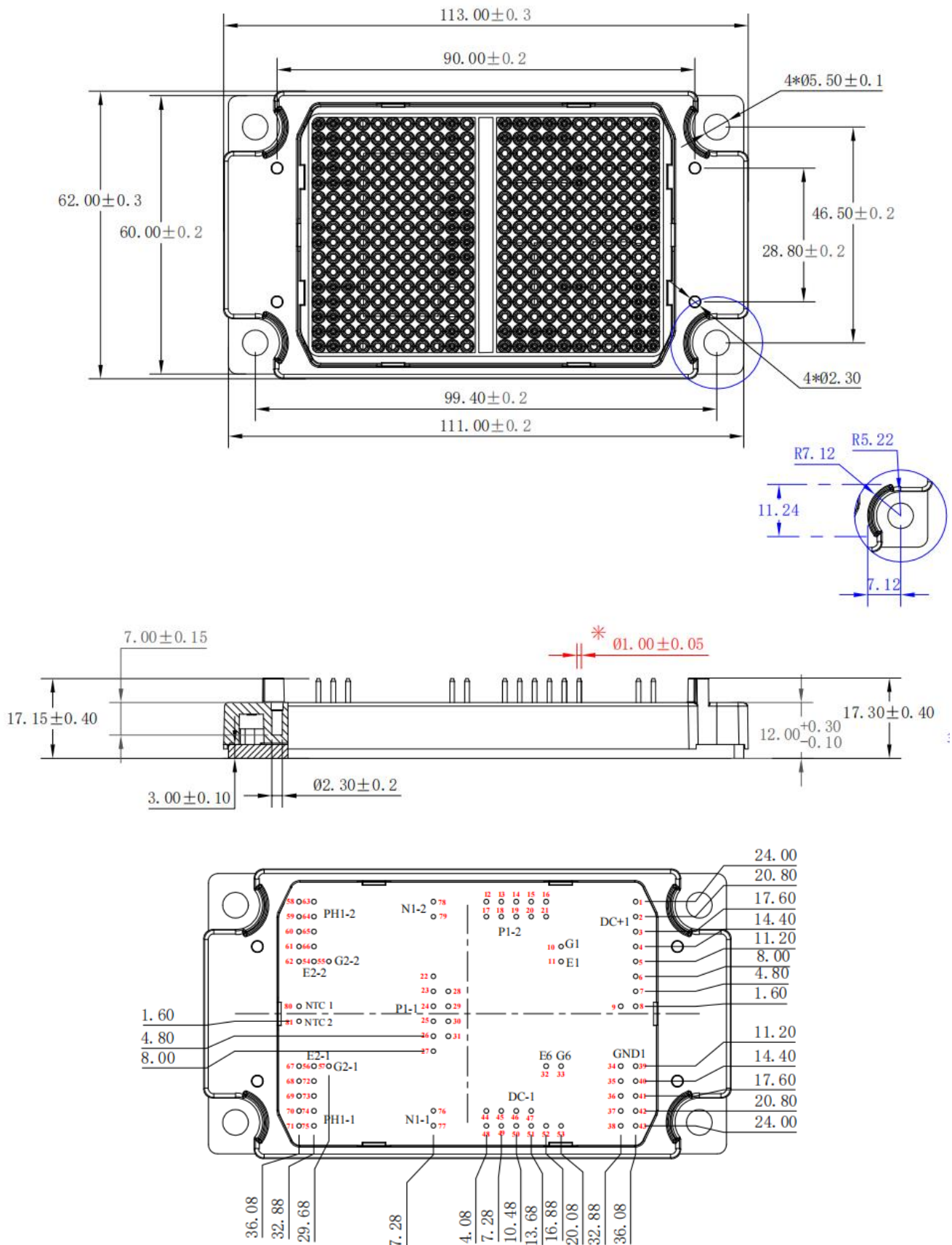
负温度系数热敏电阻温度特性
NTC-Thermistor-temperature characteristic(typical)
 $R = f(T_C)$



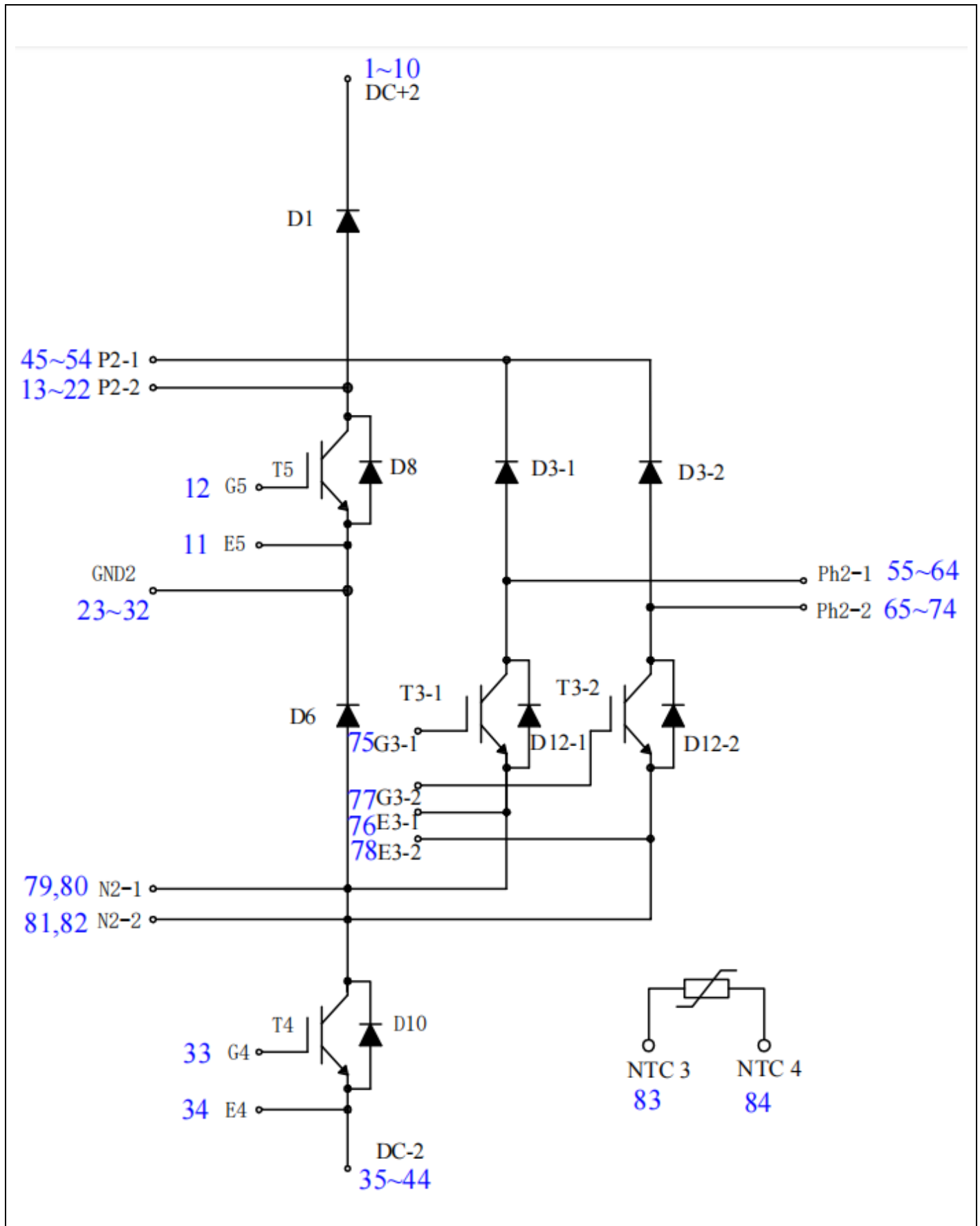
电路拓扑图 / Circuit Diagram@ AMG800L12P4H7RA



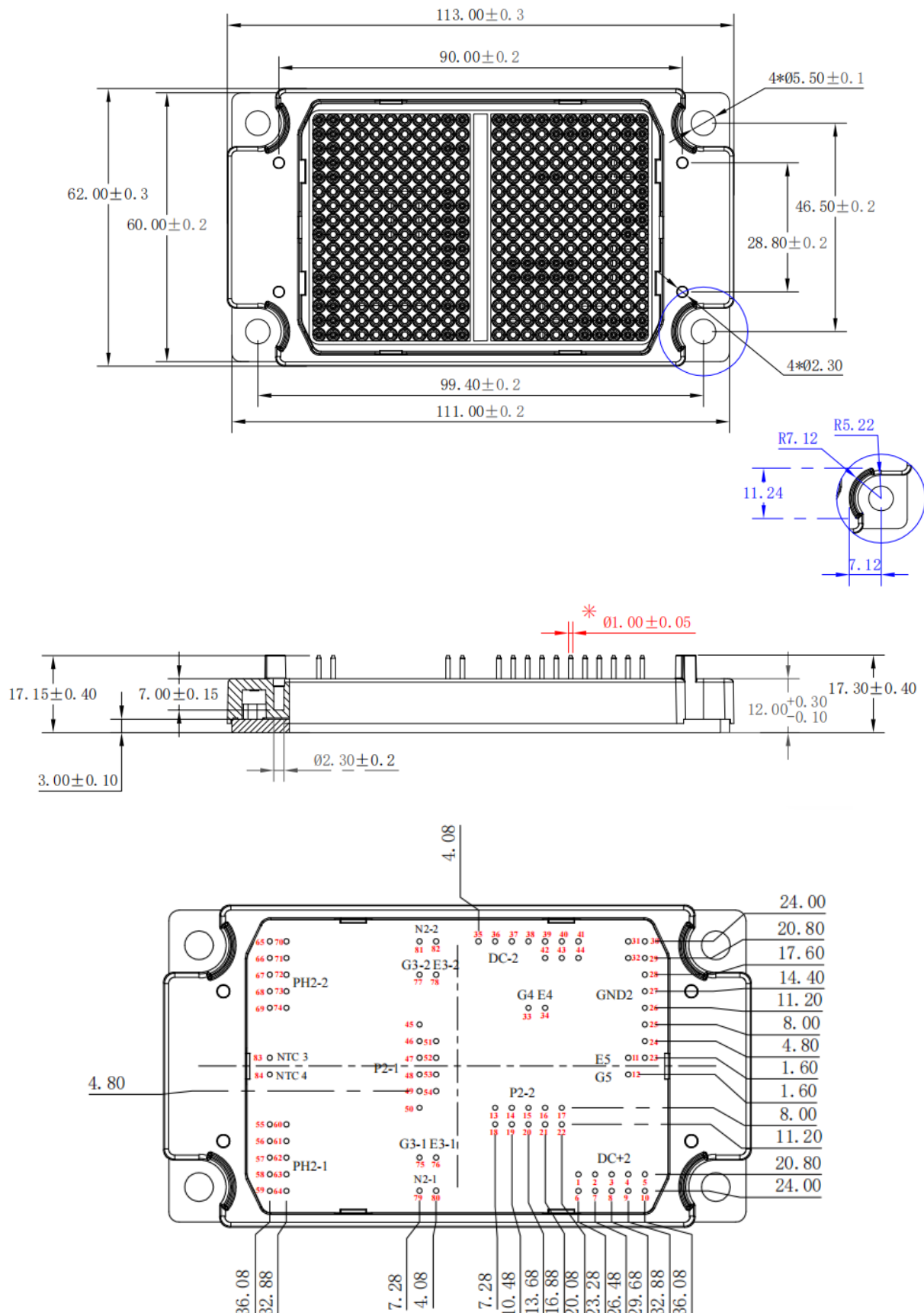
封装尺寸 / Package Outlines@ AMG800L12P4H7RA



电路拓扑图 / Circuit Diagram@ AMG800L12P4H7RB



封装尺寸 / Package Outlines@ AMG800L12P4H7RB



模块标签信息/ Module Marking Information**Marking Diagram**

AMG800L12P4H7RA/AMG800L12P4H7RB = Specific Device

P4CQ22420010001 = Lot Traceability

ACP-3S = Package Type

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4. 产品在使用时，严禁触碰，断电后确认无残余电荷且产品已完全冷却后，才可以在有静电防护措施下触碰产品；

When the product is in use, it is strictly forbidden to touch the product. After power off, it is confirmed that there is no residual charge and the product has been completely cooled, and it can only be touched under electrostatic protection measures;

5. 购买产品时请认准我司商标，如有疑问请与本司联系。

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