

二极管, 逆变器 / Diode, Inverter
最大额定值 / Maximum Rated Values

初步数据
Preliminary Data

反向重复峰值电压 Repetitive peak reverse voltage	$T_{vj} = 25^{\circ}\text{C}$	V_{RRM}	1700	V
连续正向直流电流 Continuous DC forward current		I_F	400	A
正向重复峰值电流 Repetitive peak forward current	$t_P = 1\text{ ms}$	I_{FRM}	800	A
I^2t -值 I^2t - value	$V_R = 0\text{ V}$, $t_P = 10\text{ ms}$, $T_{vj} = 125^{\circ}\text{C}$	I^2t	45,0	kA^2s

特征值 / Characteristic Values

				min.	typ.	max.	
正向电压 Forward voltage	$I_F = 400\text{ A}$, $V_{GE} = 0\text{ V}$ $I_F = 400\text{ A}$, $V_{GE} = 0\text{ V}$	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 125^{\circ}\text{C}$	V_F		2,10 2,10	2,50 2,50	V V
反向恢复峰值电流 Peak reverse recovery current	$I_F = 400\text{ A}$, $-di_F/dt = 3100\text{ A}/\mu\text{s}$ ($T_{vj}=125^{\circ}\text{C}$) $V_R = 900\text{ V}$ $V_{GE} = -15\text{ V}$	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 125^{\circ}\text{C}$	I_{RM}		300 370		A A
恢复电荷 Recovered charge	$I_F = 400\text{ A}$, $-di_F/dt = 3100\text{ A}/\mu\text{s}$ ($T_{vj}=125^{\circ}\text{C}$) $V_R = 900\text{ V}$ $V_{GE} = -15\text{ V}$	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 125^{\circ}\text{C}$	Q_r		80,0 145		μC μC
反向恢复损耗 (每脉冲) Reverse recovery energy	$I_F = 400\text{ A}$, $-di_F/dt = 3100\text{ A}/\mu\text{s}$ ($T_{vj}=125^{\circ}\text{C}$) $V_R = 900\text{ V}$ $V_{GE} = -15\text{ V}$	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 125^{\circ}\text{C}$	E_{rec}		35,0 75,0		mJ mJ
结 - 外壳热阻 Thermal resistance, junction to case	每个二极管 / per diode		R_{thJC}			68,0	K/kW
在开关状态下温度 Temperature under switching conditions			$T_{vj\text{ op}}$	-40		125	$^{\circ}\text{C}$

模块 / Module

绝缘测试电压 Isolation test voltage	RMS, $f = 50\text{ Hz}$, $t = 1\text{ min.}$	V_{ISOL}	4,0	kV
内部绝缘 Internal isolation	基本绝缘 (class 1, IEC 61140) basic insulation (class 1, IEC 61140)		AIN	
爬电距离 Creepage distance	端子- 散热片 / terminal to heatsink 端子- 端子 / terminal to terminal		15,0	mm
电气间隙 Clearance	端子- 散热片 / terminal to heatsink 端子- 端子 / terminal to terminal		10,0	mm
相对电痕指数 Comperative tracking index		CTI	> 275	
外壳 - 散热器热阻 Thermal resistance, case to heatsink	每个模块 / per module $\lambda_{\text{Paste}} = 1\text{ W}/(\text{m}\cdot\text{K})$ / $\lambda_{\text{grease}} = 1\text{ W}/(\text{m}\cdot\text{K})$	R_{thCH}	8,00	K/kW
杂散电感, 模块 Stray inductance module		L_{sCE}	20	nH
模块引线电阻, 端子- 芯片 Module lead resistance, terminals - chip	$T_c = 25^{\circ}\text{C}$, 每个开关 / per switch	$R_{CC+EE'}$	0,16	$\text{m}\Omega$
储存温度 Storage temperature		T_{stg}	-40	125 $^{\circ}\text{C}$
模块安装的安装扭矩 Mounting torque for modul mounting	螺丝 M6 根据相应的应用手册进行安装 Screw M6 - Mounting according to valid application note	M	4,25	- 5,75 Nm
端子联接扭矩 Terminal connection torque	螺丝 M4 根据相应的应用手册进行安装 Screw M4 - Mounting according to valid application note 螺丝 M8 根据相应的应用手册进行安装 Screw M8 - Mounting according to valid application note	M	1,8 8,0	- 2,1 10 Nm
重量 Weight		G	1050	g

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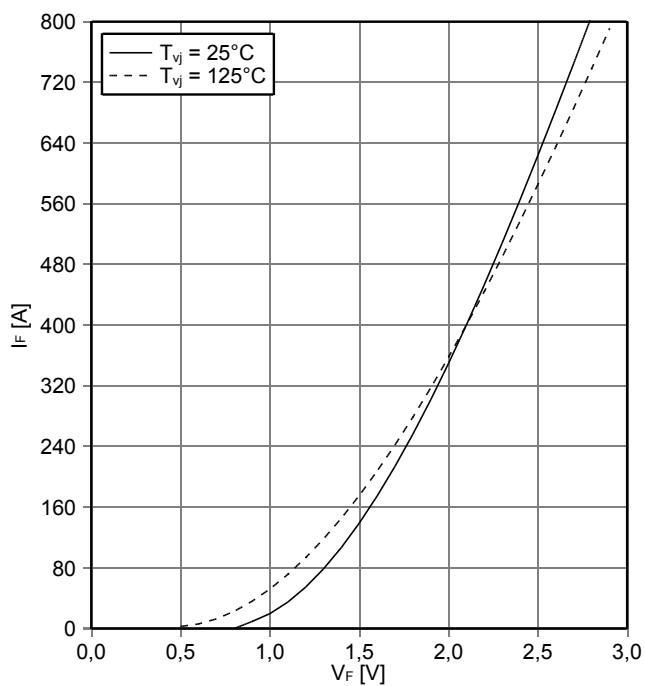
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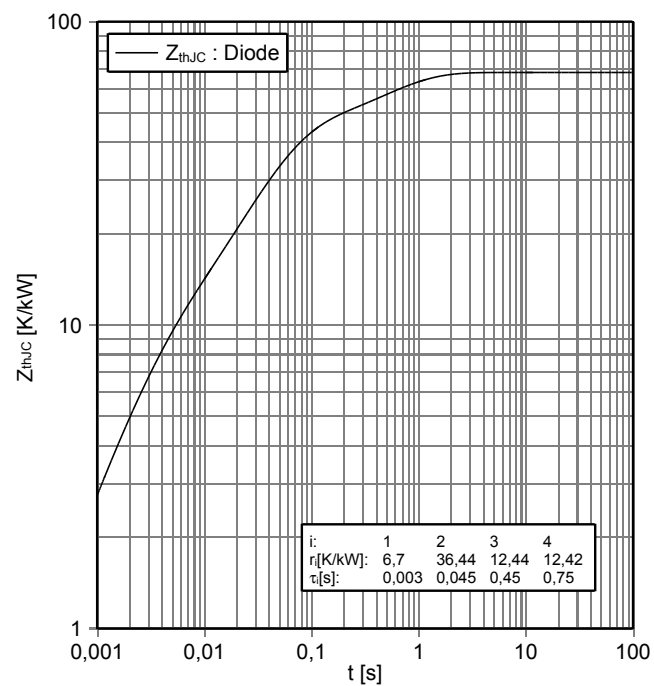
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初步数据
Preliminary Data

正向偏压特性 二极管,逆变器 (典型)
forward characteristic of Diode, Inverter (typical)
 $I_F = f(V_F)$

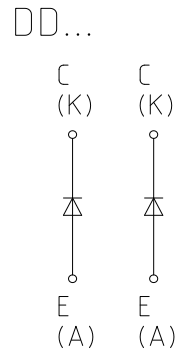


瞬态热阻抗 二极管,逆变器
transient thermal impedance Diode, Inverter
 $Z_{thJC} = f(t)$

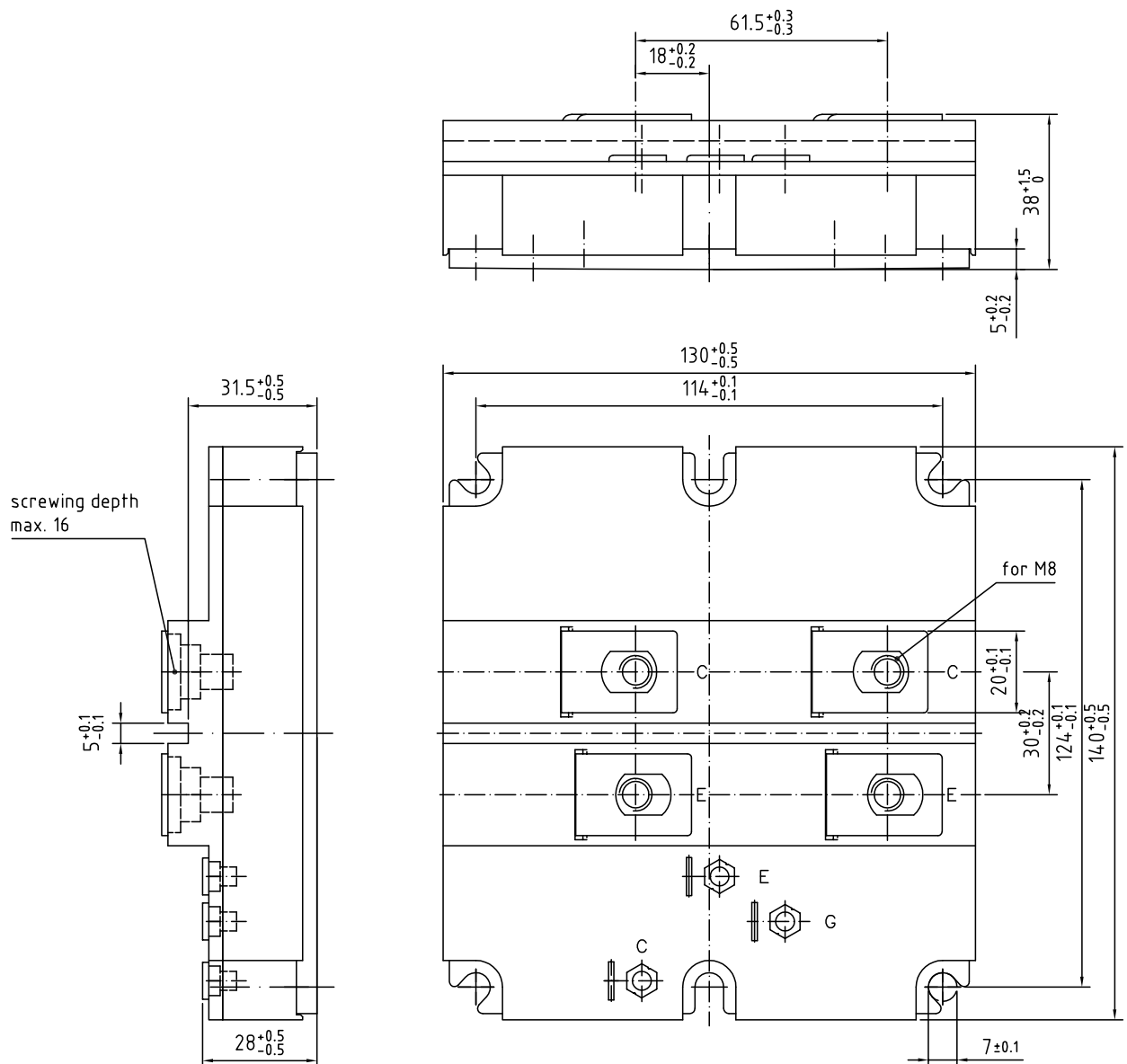


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接线图 / circuit_diagram_headline



封装尺寸 / package outlines



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初步数据 Preliminary Data

使用条件和条款

使用条件和条款

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