

**IGBT, 制动-斩波器 / IGBT, Brake-Chopper**  
**最大额定值 / Maximum Rated Values**

**初步数据**  
**Preliminary Data**

|                                                |                                                                                                                              |                             |              |        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------|--------|
| 集电极 - 发射极电压<br>Collector-emitter voltage       | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = -25^{\circ}\text{C}$                                                              | $V_{CES}$                   | 3300<br>3300 | V      |
| 连续集电极直流电流<br>Continuous DC collector current   | $T_C = 80^{\circ}\text{C}, T_{vj\max} = 150^{\circ}\text{C}$<br>$T_C = 25^{\circ}\text{C}, T_{vj\max} = 150^{\circ}\text{C}$ | $I_{C\text{ nom}}$<br>$I_C$ | 800<br>1500  | A<br>A |
| 集电极重复峰值电流<br>Repetitive peak collector current | $t_P = 1\text{ ms}$                                                                                                          | $I_{CRM}$                   | 1600         | A      |
| 总功率损耗<br>Total power dissipation               | $T_C = 25^{\circ}\text{C}, T_{vj\max} = 150$                                                                                 | $P_{\text{tot}}$            | 9,80         | kW     |
| 栅极 - 发射极峰值电压<br>Gate-emitter peak voltage      |                                                                                                                              | $V_{GES}$                   | +/-20        | V      |

**特征值 / Characteristic Values**

|                                                       |                                                                                                                                                                                            |                                                                 | min.                | typ.         | max.         |                                |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------|--------------|--------------|--------------------------------|
| 集电极 - 发射极饱和电压<br>Collector-emitter saturation voltage | $I_C = 800\text{ A}, V_{GE} = 15\text{ V}$<br>$I_C = 800\text{ A}, V_{GE} = 15\text{ V}$                                                                                                   | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $V_{CE\text{ sat}}$ | 3,00<br>3,70 | 3,65<br>4,45 | V<br>V                         |
| 栅极阈值电压<br>Gate threshold voltage                      | $I_C = 80,0\text{ mA}, V_{CE} = V_{GE}, T_{vj} = 25^{\circ}\text{C}$                                                                                                                       |                                                                 | $V_{GEth}$          | 4,2          | 5,1          | 6,0 V                          |
| 栅极电荷<br>Gate charge                                   | $V_{GE} = -15\text{ V} \dots +15\text{ V}, V_{CE} = 1800\text{ V}$                                                                                                                         |                                                                 | $Q_G$               | 15,0         |              | $\mu\text{C}$                  |
| 内部栅极电阻<br>Internal gate resistor                      | $T_{vj} = 25^{\circ}\text{C}$                                                                                                                                                              |                                                                 | $R_{Gint}$          | 0,75         |              | $\Omega$                       |
| 输入电容<br>Input capacitance                             | $f = 1\text{ MHz}, T_{vj} = 25^{\circ}\text{C}, V_{CE} = 25\text{ V}, V_{GE} = 0\text{ V}$                                                                                                 |                                                                 | $C_{ies}$           | 97,0         |              | nF                             |
| 反向传输电容<br>Reverse transfer capacitance                | $f = 1\text{ MHz}, T_{vj} = 25^{\circ}\text{C}, V_{CE} = 25\text{ V}, V_{GE} = 0\text{ V}$                                                                                                 |                                                                 | $C_{res}$           | 5,40         |              | nF                             |
| 集电极-发射极截止电流<br>Collector-emitter cut-off current      | $V_{CE} = 3300\text{ V}, V_{GE} = 0\text{ V}, T_{vj} = 25^{\circ}\text{C}$                                                                                                                 |                                                                 | $I_{CES}$           |              | 5,0          | mA                             |
| 栅极-发射极漏电流<br>Gate-emitter leakage current             | $V_{CE} = 0\text{ V}, V_{GE} = 20\text{ V}, T_{vj} = 25^{\circ}\text{C}$                                                                                                                   |                                                                 | $I_{GES}$           |              | 400          | nA                             |
| 开通延迟时间(电感负载)<br>Turn-on delay time, inductive load    | $I_C = 800\text{ A}, V_{CE} = 1800\text{ V}$<br>$V_{GE} = \pm 15\text{ V}$<br>$R_{Gon} = 6,8\text{ }\Omega, C_{GE} = 220\text{ nF}$                                                        | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $t_{don}$           | 1,00<br>1,00 |              | $\mu\text{s}$<br>$\mu\text{s}$ |
| 上升时间(电感负载)<br>Rise time, inductive load               | $I_C = 800\text{ A}, V_{CE} = 1800\text{ V}$<br>$V_{GE} = \pm 15\text{ V}$<br>$R_{Gon} = 6,8\text{ }\Omega, C_{GE} = 220\text{ nF}$                                                        | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $t_r$               | 0,40<br>0,40 |              | $\mu\text{s}$<br>$\mu\text{s}$ |
| 关断延迟时间(电感负载)<br>Turn-off delay time, inductive load   | $I_C = 800\text{ A}, V_{CE} = 1800\text{ V}$<br>$V_{GE} = \pm 15\text{ V}$<br>$R_{Goff} = 6,8\text{ }\Omega, C_{GE} = 220\text{ nF}$                                                       | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $t_{doff}$          | 3,70<br>3,90 |              | $\mu\text{s}$<br>$\mu\text{s}$ |
| 下降时间(电感负载)<br>Fall time, inductive load               | $I_C = 800\text{ A}, V_{CE} = 1800\text{ V}$<br>$V_{GE} = \pm 15\text{ V}$<br>$R_{Goff} = 6,8\text{ }\Omega, C_{GE} = 220\text{ nF}$                                                       | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $t_f$               | 0,25<br>0,35 |              | $\mu\text{s}$<br>$\mu\text{s}$ |
| 开通损耗能量(每脉冲)<br>Turn-on energy loss per pulse          | $I_C = 800\text{ A}, V_{CE} = 1800\text{ V}, L_S = 60\text{ nH}$<br>$V_{GE} = \pm 15\text{ V}, di/dt = 4200\text{ A}/\mu\text{s}$<br>$R_{Gon} = 3,0\text{ }\Omega, C_{GE} = 220\text{ nF}$ | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $E_{on}$            | 1700<br>2250 |              | mJ<br>mJ                       |
| 关断损耗能量(每脉冲)<br>Turn-off energy loss per pulse         | $I_C = 800\text{ A}, V_{CE} = 1800\text{ V}, L_S = 60\text{ nH}$<br>$V_{GE} = \pm 15\text{ V}$<br>$R_{Goff} = 6,8\text{ }\Omega, C_{GE} = 220\text{ nF}$                                   | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $E_{off}$           | 900<br>1250  |              | mJ<br>mJ                       |
| 短路数据<br>SC data                                       | $V_{GE} \leq 15\text{ V}, V_{CC} = 2500\text{ V}$<br>$V_{CEmax} = V_{CES} - L_{SCE} \cdot di/dt$<br>$t_P \leq 10\text{ }\mu\text{s}, T_{vj} = 125^{\circ}\text{C}$                         |                                                                 | $I_{SC}$            | 3500         |              | A                              |
| 结 - 外壳热阻<br>Thermal resistance, junction to case      | 每个 IGBT / per IGBT                                                                                                                                                                         |                                                                 | $R_{thJC}$          |              | 13,0         | K/kW                           |
| 外壳 - 散热器热阻<br>Thermal resistance, case to heatsink    | 每个 IGBT / per IGBT<br>$\lambda_{\text{Paste}} = 1\text{ W}/(\text{m}\cdot\text{K}) / \lambda_{\text{grease}} = 1\text{ W}/(\text{m}\cdot\text{K})$                                         |                                                                 | $R_{thCH}$          | 12,0         |              | K/kW                           |
| 在开关状态下温度<br>Temperature under switching conditions    |                                                                                                                                                                                            |                                                                 | $T_{vj\text{ op}}$  | -40          | 125          | $^{\circ}\text{C}$             |

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初步数据  
Preliminary Data

二极管，制动-斩波器 / Diode, Brake-Chopper

最大额定值 / Maximum Rated Values

|                                             |                                                                              |                      |              |                       |
|---------------------------------------------|------------------------------------------------------------------------------|----------------------|--------------|-----------------------|
| 反向重复峰值电压<br>Repetitive peak reverse voltage | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = -25^{\circ}\text{C}$              | $V_{RRM}$            | 3300<br>3300 | V                     |
| 连续正向直流电流<br>Continuous DC forward current   |                                                                              | $I_F$                | 800          | A                     |
| 正向重复峰值电流<br>Repetitive peak forward current | $t_P = 1 \text{ ms}$                                                         | $I_{FRM}$            | 1600         | A                     |
| $I_2t$ -值<br>$I_2t$ - value                 | $V_R = 0 \text{ V}$ , $t_P = 10 \text{ ms}$ , $T_{vj} = 125^{\circ}\text{C}$ | $I_2t$               | 230          | $\text{kA}^2\text{s}$ |
| 最大损耗功率<br>Maximum power dissipation         | $T_{vj} = 125^{\circ}\text{C}$                                               | $P_{RQM}$            | 1200         | kW                    |
| 最小开通时间<br>Minimum turn-on time              |                                                                              | $t_{on \text{ min}}$ | 10,0         | $\mu\text{s}$         |

特征值 / Characteristic Values

|                                                    |                                                                                                                                                        |                                                                 | min.                | typ. | max.         |                                |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------|------|--------------|--------------------------------|
| 正向电压<br>Forward voltage                            | $I_F = 800 \text{ A}$ , $V_{GE} = 0 \text{ V}$<br>$I_F = 800 \text{ A}$ , $V_{GE} = 0 \text{ V}$                                                       | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $V_F$               |      | 2,60<br>2,55 | t.b.d.<br>V<br>V               |
| 反向恢复峰值电流<br>Peak reverse recovery current          | $I_F = 800 \text{ A}$ , $-di_F/dt = 4200 \text{ A}/\mu\text{s}$ ( $T_{vj}=125^{\circ}\text{C}$ )<br>$V_R = 1800 \text{ V}$<br>$V_{GE} = -15 \text{ V}$ | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $I_{RM}$            |      | 1050<br>1200 | A<br>A                         |
| 恢复电荷<br>Recovered charge                           | $I_F = 800 \text{ A}$ , $-di_F/dt = 4200 \text{ A}/\mu\text{s}$ ( $T_{vj}=125^{\circ}\text{C}$ )<br>$V_R = 1800 \text{ V}$<br>$V_{GE} = -15 \text{ V}$ | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $Q_r$               |      | 540<br>960   | $\mu\text{C}$<br>$\mu\text{C}$ |
| 反向恢复损耗 (每脉冲)<br>Reverse recovery energy            | $I_F = 800 \text{ A}$ , $-di_F/dt = 4200 \text{ A}/\mu\text{s}$ ( $T_{vj}=125^{\circ}\text{C}$ )<br>$V_R = 1800 \text{ V}$<br>$V_{GE} = -15 \text{ V}$ | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $E_{rec}$           |      | 500<br>1000  | mJ<br>mJ                       |
| 结 - 外壳热阻<br>Thermal resistance, junction to case   | 每个二极管 / per diode                                                                                                                                      |                                                                 | $R_{thJC}$          |      |              | 25,5 K/kW                      |
| 外壳 - 散热器热阻<br>Thermal resistance, case to heatsink | 每个二极管 / per diode<br>$\lambda_{\text{Paste}} = 1 \text{ W}/(\text{m}\cdot\text{K})$ / $\lambda_{\text{grease}} = 1 \text{ W}/(\text{m}\cdot\text{K})$  |                                                                 | $R_{thCH}$          |      | 24,0         | K/kW                           |
| 在开关状态下温度<br>Temperature under switching conditions |                                                                                                                                                        |                                                                 | $T_{vj \text{ op}}$ | -40  |              | 125 $^{\circ}\text{C}$         |

|                  |                                 |
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初步数据  
Preliminary Data

反向二极管 / Diode, Reverse

最大额定值 / Maximum Rated Values

|                                             |                                                                              |                      |              |                       |
|---------------------------------------------|------------------------------------------------------------------------------|----------------------|--------------|-----------------------|
| 反向重复峰值电压<br>Repetitive peak reverse voltage | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = -25^{\circ}\text{C}$              | $V_{RRM}$            | 3300<br>3300 | V                     |
| 连续正向直流电流<br>Continuous DC forward current   |                                                                              | $I_F$                | 800          | A                     |
| 正向重复峰值电流<br>Repetitive peak forward current | $t_P = 1 \text{ ms}$                                                         | $I_{FRM}$            | 1600         | A                     |
| $I_2t$ -值<br>$I^2t$ - value                 | $V_R = 0 \text{ V}$ , $t_P = 10 \text{ ms}$ , $T_{vj} = 125^{\circ}\text{C}$ | $I^2t$               | 230          | $\text{kA}^2\text{s}$ |
| 最大损耗功率<br>Maximum power dissipation         | $T_{vj} = 125^{\circ}\text{C}$                                               | $P_{RQM}$            | 1200         | kW                    |
| 最小开通时间<br>Minimum turn-on time              |                                                                              | $t_{on \text{ min}}$ | 10,0         | $\mu\text{s}$         |

特征值 / Characteristic Values

|                                                    |                                                                                                                                                       |                                                                 | min.                | typ. | max.         |                                |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------|------|--------------|--------------------------------|
| 正向电压<br>Forward voltage                            | $I_F = 800 \text{ A}$ , $V_{GE} = 0 \text{ V}$<br>$I_F = 800 \text{ A}$ , $V_{GE} = 0 \text{ V}$                                                      | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $V_F$               |      | 2,60<br>2,55 | t.b.d.<br>V<br>V               |
| 反向恢复峰值电流<br>Peak reverse recovery current          | $I_F = 800 \text{ A}$ , $-di_F/dt = 4200 \text{ A}/\mu\text{s}$ ( $T_{vj}=125^{\circ}\text{C}$ )<br>$V_R = 1800 \text{ V}$                            | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $I_{RM}$            |      | 1050<br>1200 | A<br>A                         |
| 恢复电荷<br>Recovered charge                           | $I_F = 800 \text{ A}$ , $-di_F/dt = 4200 \text{ A}/\mu\text{s}$ ( $T_{vj}=125^{\circ}\text{C}$ )<br>$V_R = 1800 \text{ V}$                            | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $Q_r$               |      | 540<br>960   | $\mu\text{C}$<br>$\mu\text{C}$ |
| 反向恢复损耗 (每脉冲)<br>Reverse recovery energy            | $I_F = 800 \text{ A}$ , $-di_F/dt = 4200 \text{ A}/\mu\text{s}$ ( $T_{vj}=125^{\circ}\text{C}$ )<br>$V_R = 1800 \text{ V}$                            | $T_{vj} = 25^{\circ}\text{C}$<br>$T_{vj} = 125^{\circ}\text{C}$ | $E_{rec}$           |      | 500<br>1000  | mJ<br>mJ                       |
| 结 - 外壳热阻<br>Thermal resistance, junction to case   | 每个二极管 / per diode                                                                                                                                     |                                                                 | $R_{thJC}$          |      |              | 25,5 K/kW                      |
| 外壳 - 散热器热阻<br>Thermal resistance, case to heatsink | 每个二极管 / per diode<br>$\lambda_{\text{Paste}} = 1 \text{ W}/(\text{m}\cdot\text{K})$ / $\lambda_{\text{grease}} = 1 \text{ W}/(\text{m}\cdot\text{K})$ |                                                                 | $R_{thCH}$          |      | 24,0         | K/kW                           |
| 在开关状态下温度<br>Temperature under switching conditions |                                                                                                                                                       |                                                                 | $T_{vj \text{ op}}$ | -40  |              | 125 $^{\circ}\text{C}$         |

初步数据  
Preliminary Data

模块 / Module

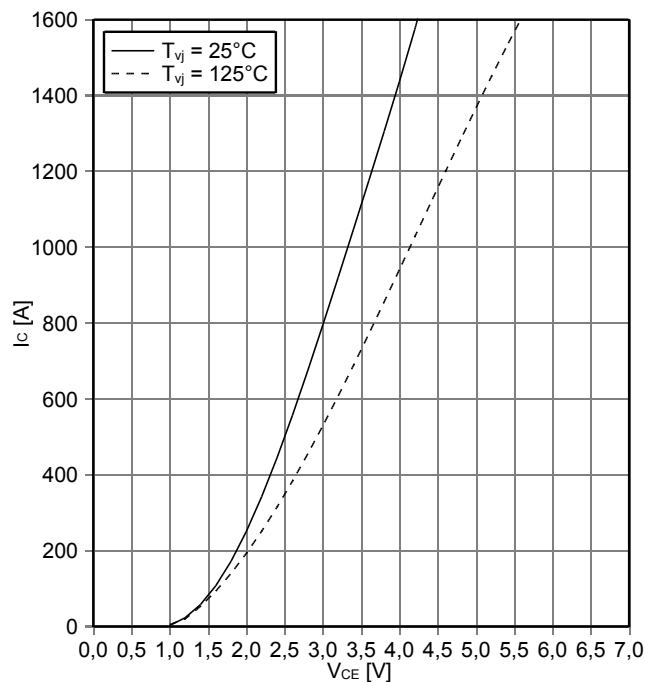
|                                                          |                                                                                                                                                                  |                                              |              |                |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------|----------------|
| 绝缘测试电压<br>Isolation test voltage                         | RMS, f = 50 Hz, t = 1 min.                                                                                                                                       | V <sub>ISOL</sub>                            | 10,2         | kV             |
| 局部放电停止电压<br>Partial discharge extinction voltage         | RMS, f = 50 Hz, Q <sub>PD</sub> typ 10 pC (acc. to IEC 1287)                                                                                                     | V <sub>ISOL</sub>                            | 5,1          | kV             |
| DC 稳定性<br>DC stability                                   | T <sub>vj</sub> = 25°C, 100 fit                                                                                                                                  | V <sub>CE D</sub>                            | 2150         | V              |
| 模块基板材料<br>Material of module baseplate                   |                                                                                                                                                                  |                                              | AlSiC        |                |
| 内部绝缘<br>Internal isolation                               | 基本绝缘 (class 1, IEC 61140)<br>basic insulation (class 1, IEC 61140)                                                                                               |                                              | AlN          |                |
| 爬电距离<br>Creepage distance                                | 端子- 散热片 / terminal to heatsink<br>端子- 端子 / terminal to terminal                                                                                                  |                                              | 64,0<br>56,0 | mm             |
| 电气间隙<br>Clearance                                        | 端子- 散热片 / terminal to heatsink<br>端子- 端子 / terminal to terminal                                                                                                  |                                              | 40,0<br>26,0 | mm             |
| 相对电痕指数<br>Comperative tracking index                     |                                                                                                                                                                  | CTI                                          | > 600        |                |
| min. typ. max.                                           |                                                                                                                                                                  |                                              |              |                |
| 杂散电感,模块<br>Stray inductance module                       |                                                                                                                                                                  | L <sub>sCE</sub>                             | 20           | nH             |
| 模块引线电阻,端子-芯片<br>Module lead resistance, terminals - chip | T <sub>c</sub> = 25°C, 每个开关 / per switch                                                                                                                         | R <sub>CC'+EE'</sub><br>R <sub>AA'+CC'</sub> | 0,18<br>0,37 | mΩ             |
| 储存温度<br>Storage temperature                              |                                                                                                                                                                  | T <sub>stg</sub>                             | -40          | 125 °C         |
| 模块安装的安装扭矩<br>Mounting torque for modul mounting          | 螺丝 M6 根据相应的应用手册进行安装<br>Screw M6 - Mounting according to valid application note                                                                                   | M                                            | 4,25         | - 5,75 Nm      |
| 端子联接扭矩<br>Terminal connection torque                     | 螺丝 M4 根据相应的应用手册进行安装<br>Screw M4 - Mounting according to valid application note<br>螺丝 M8 根据相应的应用手册进行安装<br>Screw M8 - Mounting according to valid application note | M                                            | 1,8<br>8,0   | - 2,1<br>10 Nm |
| 重量<br>Weight                                             |                                                                                                                                                                  | G                                            | 1400         | g              |

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Preliminary Data

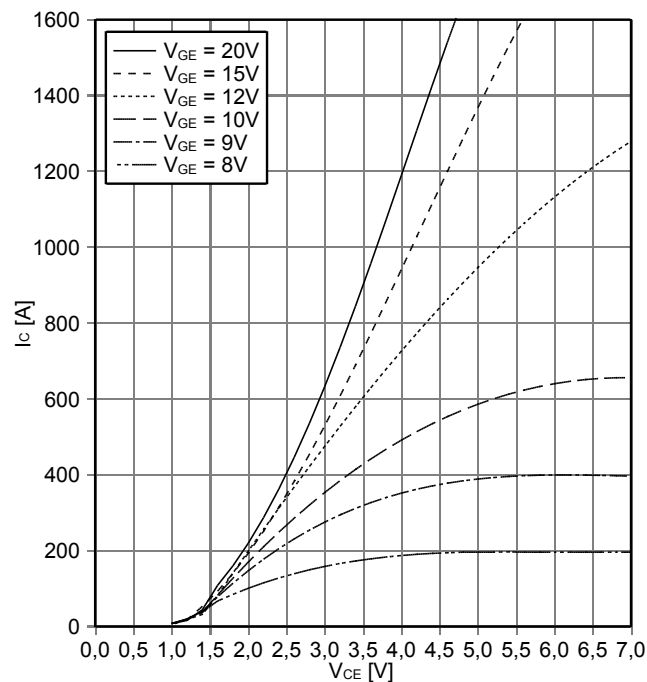
输出特性 IGBT, 制动-斩波器 (典型)  
output characteristic IGBT, Brake-Chopper (typical)

$I_C = f(V_{CE})$   
 $V_{GE} = 15\text{ V}$



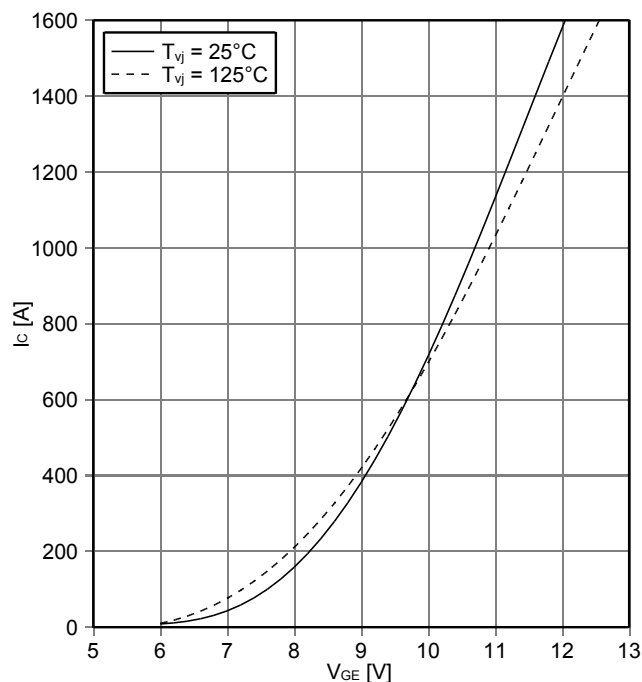
输出特性 IGBT, 制动-斩波器 (典型)  
output characteristic IGBT, Brake-Chopper (typical)

$I_C = f(V_{CE})$   
 $T_{vj} = 125^\circ\text{C}$



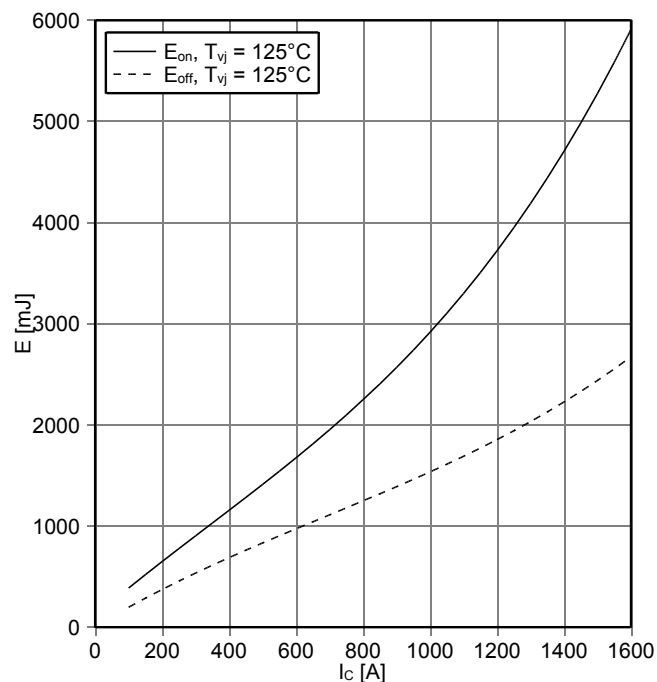
传输特性 IGBT, 制动-斩波器 (典型)  
transfer characteristic IGBT, Brake-Chopper (typical)

$I_C = f(V_{GE})$   
 $V_{CE} = 20\text{ V}$



开关损耗 IGBT, 制动-斩波器 (典型)  
switching losses IGBT, Brake-Chopper (typical)

$E_{on} = f(I_C)$ ,  $E_{off} = f(I_C)$   
 $V_{GE} = \pm 15\text{ V}$ ,  $R_{Gon} = 3\ \Omega$ ,  $R_{Goff} = 6.8\ \Omega$ ,  $V_{CE} = 1800\text{ V}$ ,  $C_{GE} = 220\text{ nF}$



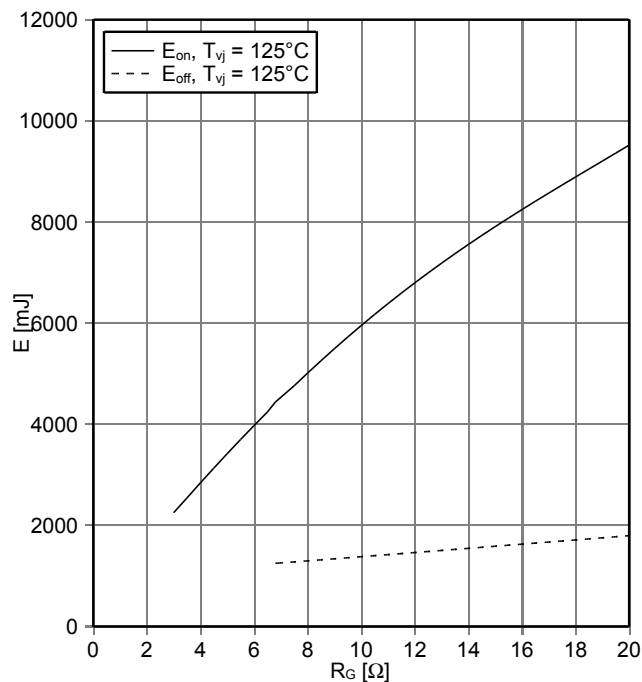
初步数据  
Preliminary Data

开关损耗 IGBT, 制动-斩波器 (典型)

switching losses IGBT, Brake-Chopper (typical)

$E_{on} = f(R_G)$ ,  $E_{off} = f(R_G)$

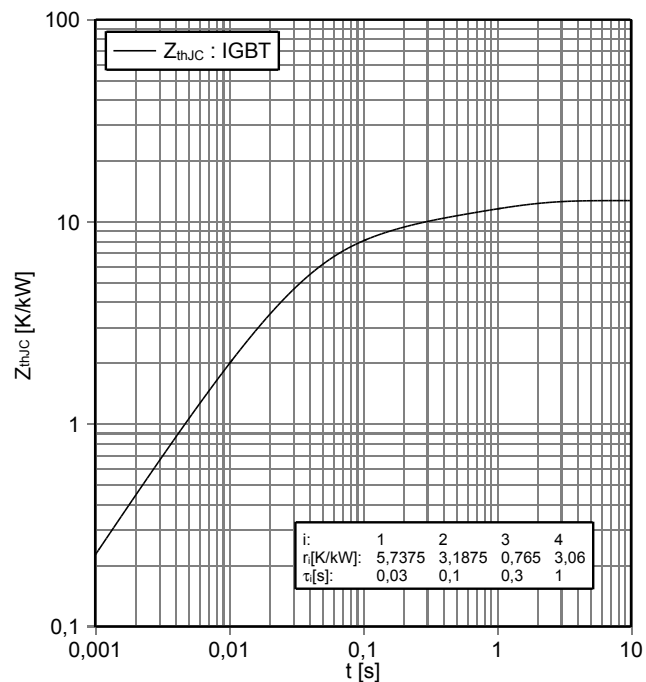
$V_{GE} = \pm 15 \text{ V}$ ,  $I_C = 800 \text{ A}$ ,  $V_{CE} = 1800 \text{ V}$ ,  $C_{GE} = 220 \text{ nF}$



瞬态热阻抗 IGBT, 制动-斩波器

transient thermal impedance IGBT, Brake-Chopper

$Z_{thJC} = f(t)$

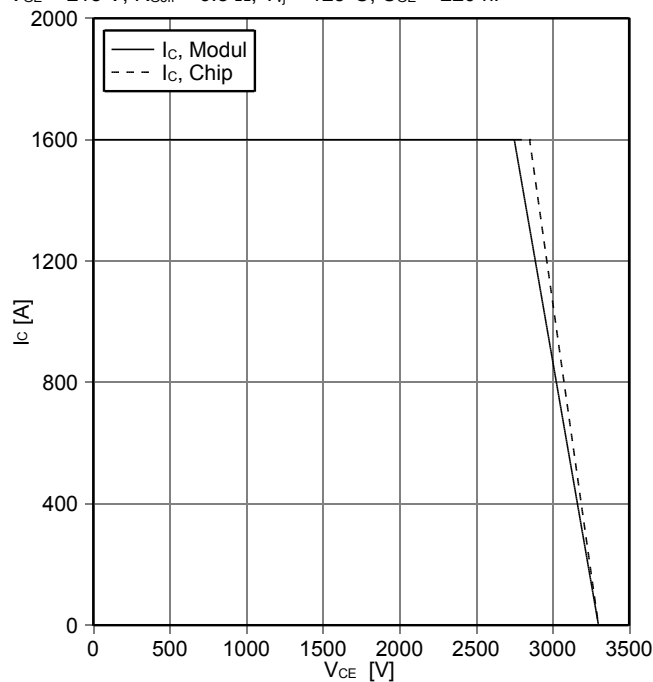


反偏安全工作区 IGBT, 制动-斩波器 (RBSOA)

reverse bias safe operating area IGBT, Brake-Chopper (RBSOA)

$I_C = f(V_{CE})$

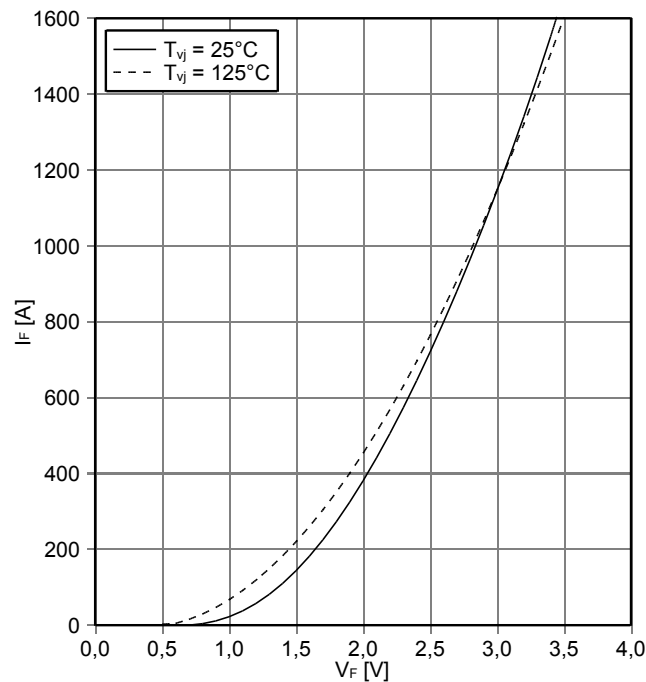
$V_{GE} = \pm 15 \text{ V}$ ,  $R_{Goff} = 6.8 \Omega$ ,  $T_{vj} = 125^\circ\text{C}$ ,  $C_{GE} = 220 \text{ nF}$



正向偏压特性 二极管, 制动-斩波器 (典型)

forward characteristic of Diode, Brake-Chopper (typical)

$I_F = f(V_F)$



prepared by: KHH

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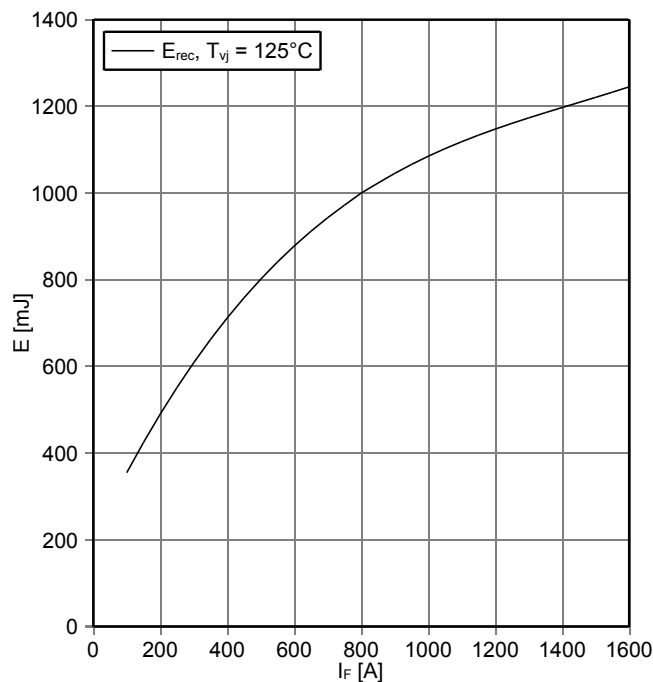
approved by: TS

revision: 2.1

初步数据  
Preliminary Data

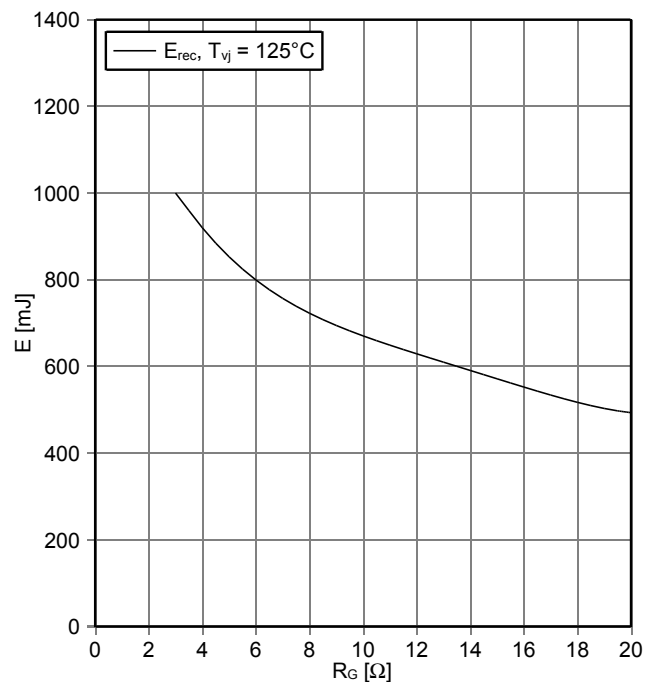
开关损耗 二极管，制动-斩波器（典型）  
switching losses Diode, Brake-Chopper (typical)

$E_{rec} = f(I_F)$   
 $R_{Gon} = 3 \Omega$ ,  $V_{CE} = 1800 V$



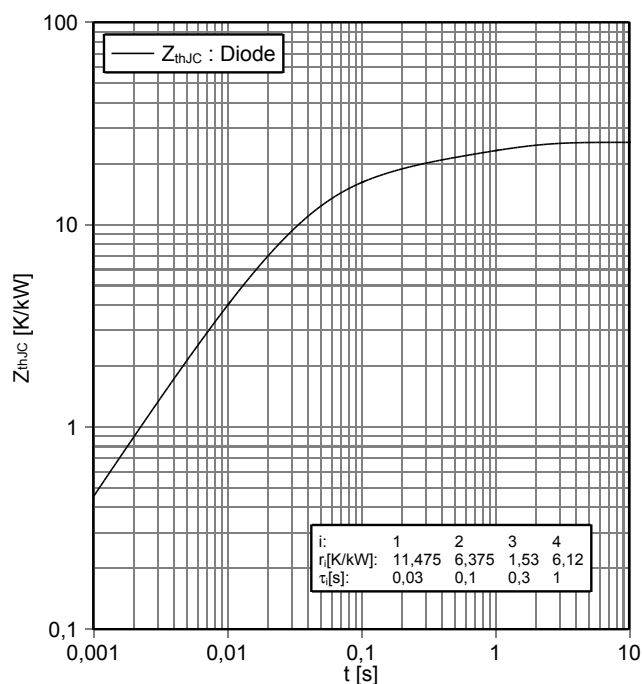
开关损耗 二极管，制动-斩波器（典型）  
switching losses Diode, Brake-Chopper (typical)

$E_{rec} = f(R_G)$   
 $I_F = 800 A$ ,  $V_{CE} = 1800 V$



瞬态热阻抗 二极管，制动-斩波器  
transient thermal impedance Diode, Brake-Chopper

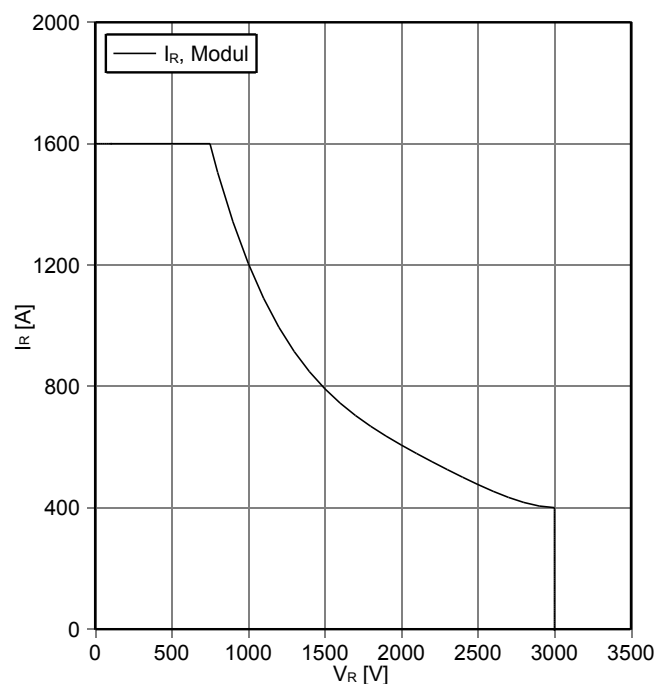
$Z_{thJC} = f(t)$



|                        |        |       |      |      |
|------------------------|--------|-------|------|------|
| i:                     | 1      | 2     | 3    | 4    |
| r <sub>i</sub> [K/kW]: | 11,475 | 6,375 | 1,53 | 6,12 |
| τ <sub>i</sub> [s]:    | 0,03   | 0,1   | 0,3  | 1    |

安全工作区 二极管，制动-斩波器 (SOA)  
safe operation area Diode, Brake-Chopper (SOA)

$I_R = f(V_R)$   
 $T_{vj} = 125^\circ C$



prepared by: KHH

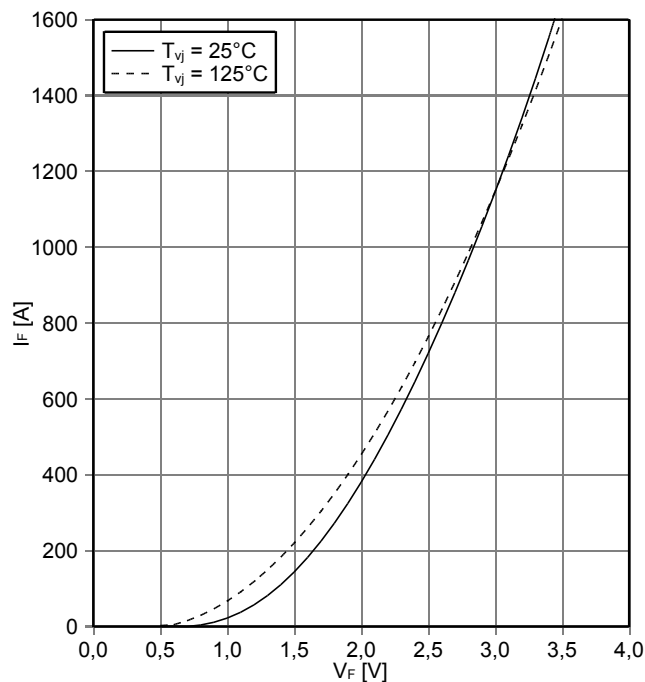
date of publication: 2013-10-03

approved by: TS

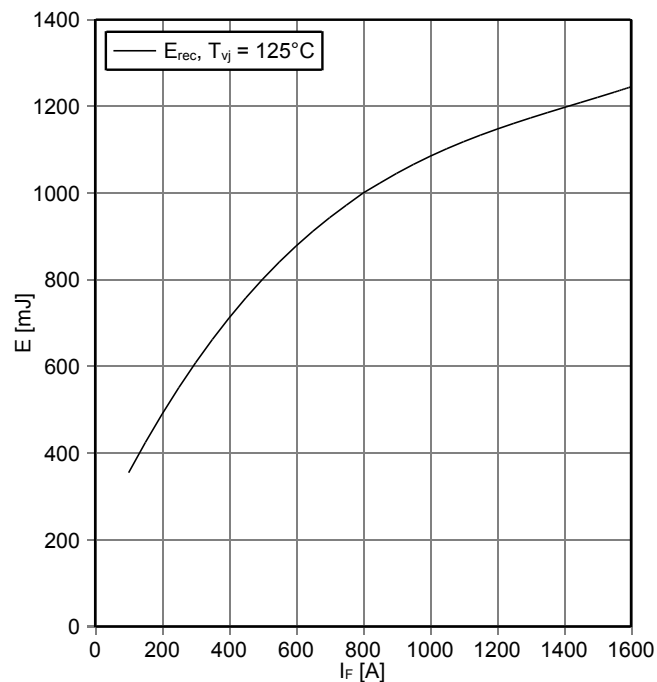
revision: 2.1

初步数据  
Preliminary Data

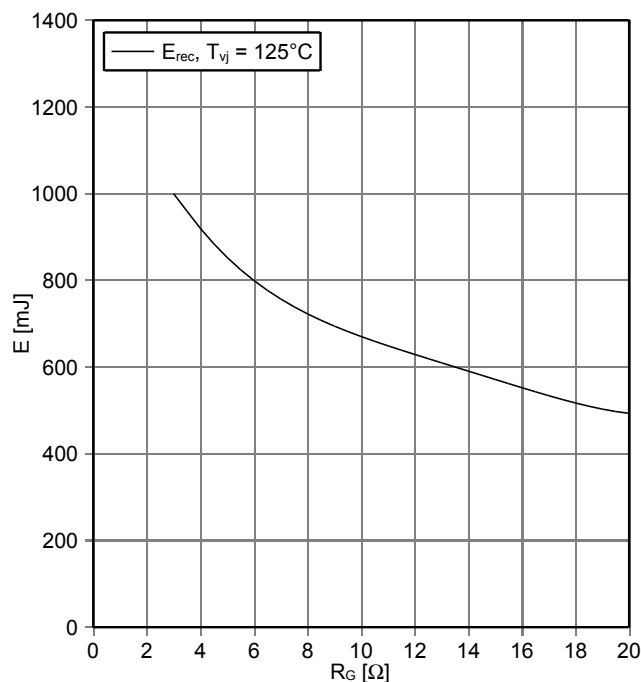
正向偏压特性 反向二极管 (典型)  
forward characteristic of Diode, Reverse (typical)  
 $I_F = f(V_F)$



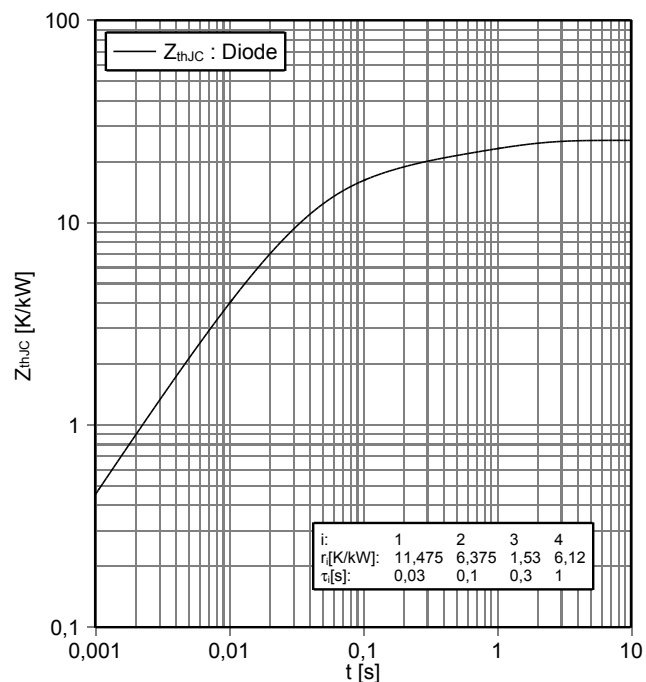
开关损耗 反向二极管 (典型)  
switching losses Diode, Reverse (typical)  
 $E_{rec} = f(I_F)$   
 $R_{Gon} = 3 \Omega$ ,  $V_{CE} = 1800 V$



开关损耗 反向二极管 (典型)  
switching losses Diode, Reverse (typical)  
 $E_{rec} = f(R_G)$   
 $I_F = 800 A$ ,  $V_{CE} = 1800 V$



瞬态热阻抗 反向二极管  
transient thermal impedance Diode, Reverse  
 $Z_{thJC} = f(t)$



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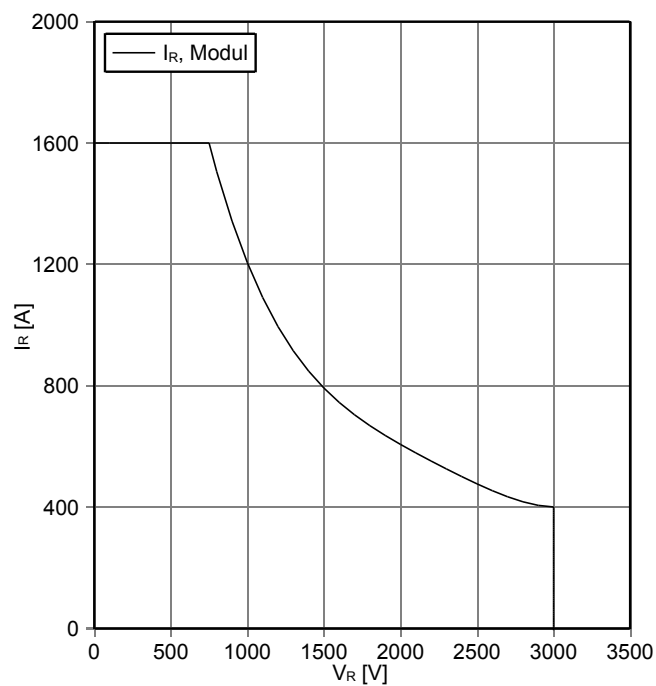
revision: 2.1



初步数据  
Preliminary Data

安全工作区 反向二极管 (SOA)  
safe operation area Diode, Reverse (SOA)

$I_R = f(V_R)$   
 $T_{vj} = 125^\circ\text{C}$

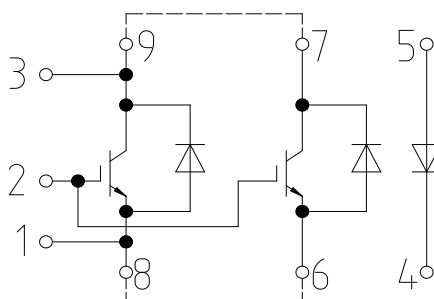


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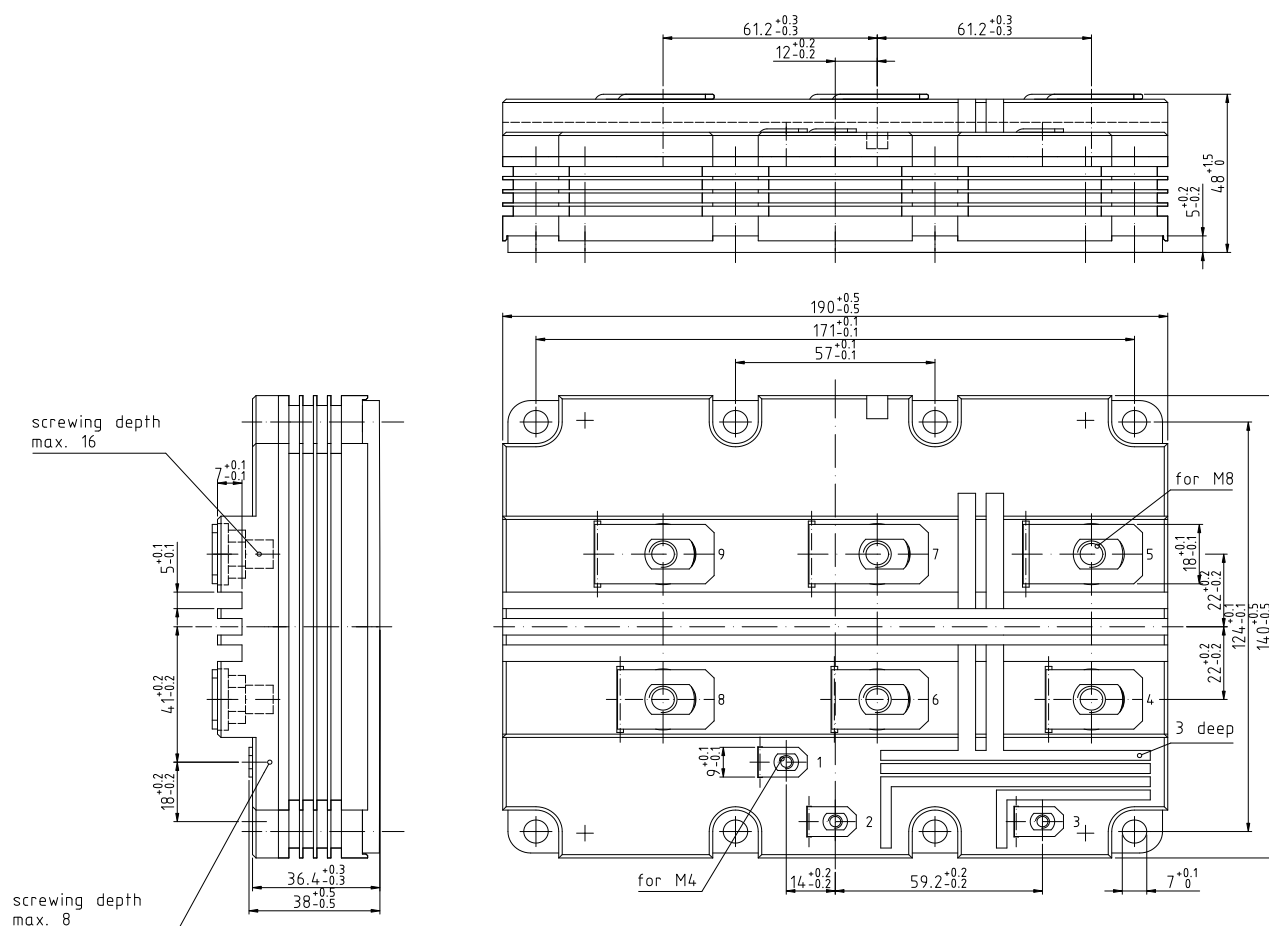
## 初步数据 Preliminary Data

### 接线图 / circuit\_diagram\_headline

FD...-K



## 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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-得到质量协议的结论

-建立联合的测试和出厂产品检查，我们可以根据测试的实际情况供货

如果有必要，请根据实际需要将类似的说明给你的客户

保留产品规格书的修改权

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- to perform joint Risk and Quality Assessments;

- the conclusion of Quality Agreements;

- to establish joint measures of an ongoing product survey, and that we may make delivery depended on the realization of any such measures.

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| prepared by: KHH | date of publication: 2013-10-03 |
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