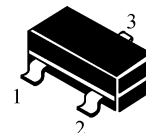


KEL[®]

2SA1162

SOT-23

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



■MAXIMUM RATINGS 最大額定值

| Characteristic 特性參數 | Symbol 符號 | Rating 額定值 | Unit 單位 |
|--|-----------|------------|---------|
| Collector-Emitter Voltage 集電極-發射極電壓 | V_{CEO} | -50 | Vdc |
| Collector-Base Voltage 集電極-基極電壓 | V_{CBO} | -50 | Vdc |
| Emitter-Base Voltage 發射極-基極電壓 | V_{EBO} | -5.0 | Vdc |
| Collector Current-Continuous 集電極電流-連續 | I_c | -150 | mAdc |

■THERMAL CHARACTERISTICS 熱特性

| Characteristic 特性參數 | Symbol 符號 | Max 最大值 | Unit 單位 |
|--|-----------------|------------------------------|------------------------------|
| Total Device Dissipation 總耗散功率 FR-5 Board(1) $T_A=25^{\circ}\text{C}$ 環境溫度為 25°C Derate above 25°C 超過 25°C 遞減 | P_D | 225 1.8 | mW mW/ $^{\circ}\text{C}$ |
| Total Device Dissipation 總耗散功率 Alumina Substrate 氧化鋁襯底,(2) $T_A=25^{\circ}\text{C}$ Derate above 25°C 超過 25°C 遞減 | P_D | 300 2.4 | mW mW/ $^{\circ}\text{C}$ |
| Thermal Resistance Junction to Ambient 熱阻 | $R_{\theta JA}$ | 417 | $^{\circ}\text{C}/\text{W}$ |
| Junction and Storage Temperature 結溫和儲存溫度 | T_J, T_{stg} | -55to+150 $^{\circ}\text{C}$ | |

■DEVICE MARKING 打標

2SA1162

H_{FE}:70-140=SO; 120-240=SY; 200-400=SG

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■ELECTRICAL CHARACTERISTICS 電特性

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如無特殊說明，溫度為 25°C)

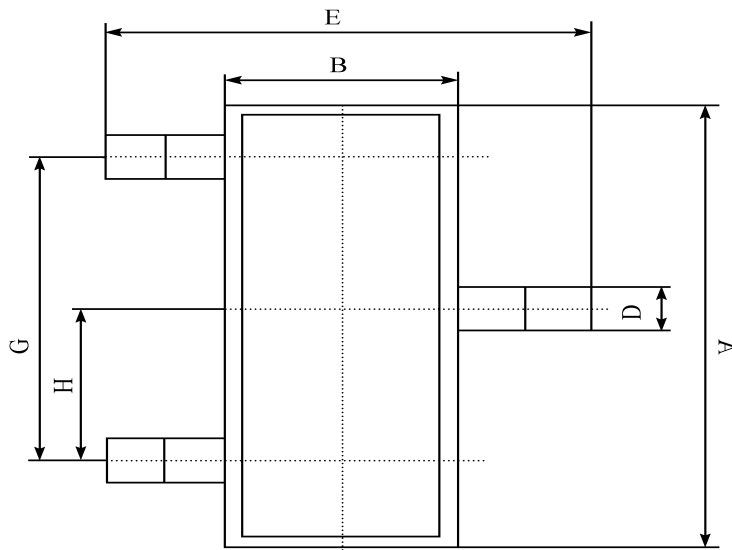
| Characteristic 特性參數 | Symbol 符號 | Min 最小值 | Type 典型值 | Max 最大值 | Unit 單位 |
|------------------------|--------------|------------|-------------|------------|------------|
|------------------------|--------------|------------|-------------|------------|------------|

■OFF CHARACTERISTICS 截止電特性

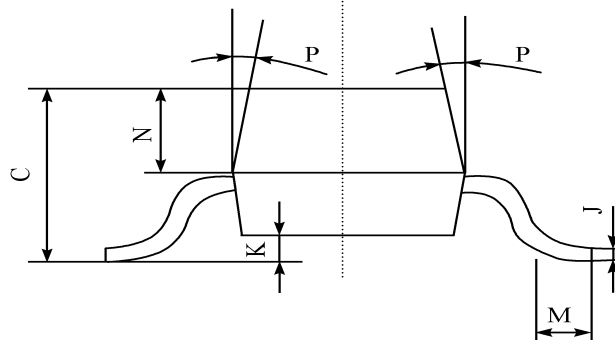
| | | | | | |
|--|----------------------|----|------|------|---------------|
| Emitter Cutoff Current 發射極截止電流($V_{EB}=-5.0\text{v}, I_C=0$) | I_{EBO} | — | — | -0.1 | μA |
| Collector Cutoff Current 集電極截止電流($V_{CB}=-50\text{v}, I_E=0$) | I_{CBO} | — | — | -0.1 | μA |
| Collector Saturation Voltage 集電極飽和壓降($I_C=-100\text{mAdc}, I_B=-10\text{mA}$) | $V_{CE(\text{sat})}$ | — | -0.1 | -0.3 | Vdc |
| DC Current Gain 直流電流增益($V_{CE}=-6.0\text{v}, I_C=-2.0\text{mA}$) | H_{FE} | 70 | — | 400 | |
| Gain Bandwidth Product 增益帶寬乘積($V_{CE}=-10\text{v}, I_C=-1.0\text{mA}$) | f_T | 80 | — | — | MHz |
| Noise Figure 噪声係數 ($V_{CE}=-6\text{V}, I_C=-0.1\text{mA}, f=1\text{kHz}, R_g=10\text{k}\Omega$) | NF | — | 1.0 | 10 | dB |
| Output Capacitance 輸出電容 ($V_{CB}=-10\text{v}, I_E=0, f=1.0\text{MHz}$) | C_{ob} | — | 4.0 | 7.0 | pF |

1. FR-5=1.0×0.75×0.062in.
2. Alumina=0.4×0.3×0.024in.99.5%alumina.

■ DIMENSION 外形封裝尺寸



| 序號 | 數值及公差 |
|----|-------------|
| A | 2.90 ± 0.10 |
| B | 1.30 ± 0.10 |
| C | 1.00 ± 0.10 |
| D | 0.40 ± 0.10 |
| E | 2.40 ± 0.20 |
| G | 1.90 ± 0.10 |
| H | 0.95 ± 0.05 |
| J | 0.13 ± 0.05 |
| K | 0.00-0.10 |
| M | ≥ 0.2 |
| N | 0.60 ± 0.10 |
| P | 7 ± 2° |



This datasheet presents technical data of Tak Cheong's Silicon Rectifier Diodes. Complete specifications for the individual devices are provided in the form of datasheets. A comprehensive Selector Guide is included to simplify the task of choosing the best set of components required for a specific application. For additional information, please visit our website <http://www.takcheong.com>.

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