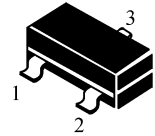


# KEL<sup>®</sup>

S9014

SOT-23

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



## ■FEATURES 特點

Excellent  $H_{FE}$  Linearity  $H_{FE}$  線性特性極好： $H_{FE}(0.1mA)/h_{FE}(2mA)=0.95$ (Typ.)

High  $H_{FE}$  高  $H_{FE}$ :  $H_{FE}=200\sim700$

Low Noise 低雜訊： $NF=1dB$ (Typ.),  $10dB$ (Max.).

Complementary to S9015 与 S9015 互补

## ■MAXIMUM RATINGS ( $T_a=25^{\circ}C$ ) 最大額定值

CHARACTERISTIC 特性參數	Symbol 符號	Rating 額定值	Unit 單位
Collector-Base Voltage 集電極-基極電壓	$V_{CBO}$	50	Vdc
Collector-Emitter Voltage 集電極-發射極電壓	$V_{CEO}$	45	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
Base Current 基極電流	$I_B$	30	mAdc
Collector Power Dissipation 集電極耗散功率	$P_C$	225	mW
Junction Temperature 結溫	$T_j$	150	$^{\circ}C$
Storage Temperature Range 儲存溫度	$T_{stg}$	-55~150	$^{\circ}C$

## ■DEVICE MARKING 打標

S9014=J6

KEL S9014

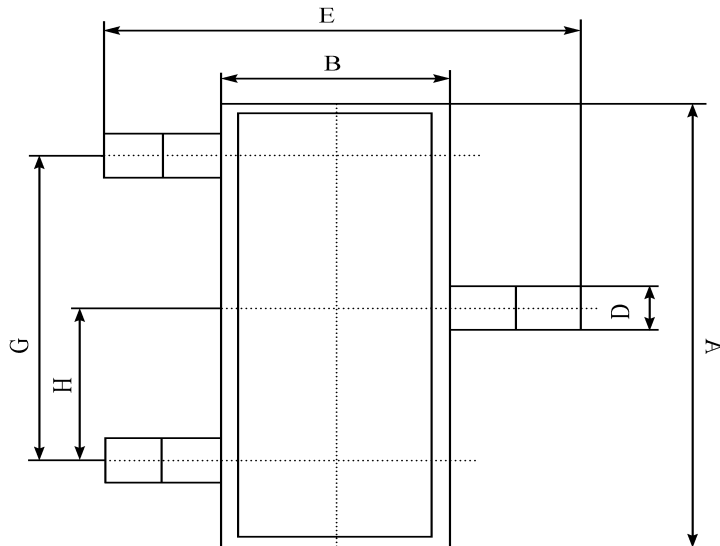


S9014

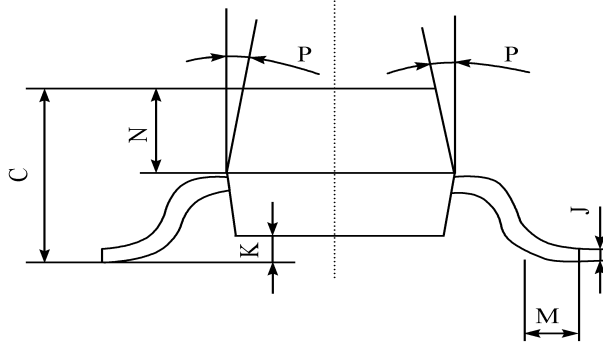
**■ELECTRICAL CHARACTERISTICS 電特性****( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如無特殊說明，溫度為  $25^{\circ}\text{C}$ )**

Characteristic 特性參數	Symbol 符號	Test Condition 測試條件	Min 最小值	Typ 典型值	Max 最大值	Unit 單位
Collector Cutoff Current 集電極截止電流	$I_{CBO}$	$V_{CB}=50\text{V}, I_E=0$	—	—	0.1	$\mu\text{A}$
Emitter Cutoff Current 發射極截止電流	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$	—	—	0.1	$\mu\text{A}$
Collector-Base Breakdown Voltage 集電極-基極擊穿電壓	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$	50	—	—	V
Collector-Emitter Breakdown Voltage 集電極-發射極擊穿電壓	$V_{(BR)CEO}$	$I_C=1.0\text{mA}$	45	—	—	V
Emitter-Base Breakdown Voltage 發射極-基極擊穿電壓	$V_{(BR)EBO}$	$I_E=100\mu\text{A}$	5	—	—	V
DC Current Gain 直流電流增益	$h_{FE}$	$V_{CE}=6\text{V}, I_C=2\text{mA}$	200	—	700	—
Collector-Emitter Saturation Voltage 集電極-發射極飽和壓降	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=5\text{mA}$	—	—	0.3	V
Base-Emitter Voltage 基極-發射極電壓	$V_{BE}$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	—	—	0.82	V
Transition Frequency 特徵頻率	$f_T$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	100	180	—	MHz
Collector Output Capacitance 輸出電容	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0,$ $f=1\text{MHz}$	—	4.0	7.0	pF

## ■ 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>.

Although information in this datasheet has been carefully checked, no responsibility for the inaccuracies can be assumed by Tak Cheong. Please consult your nearest Tak Cheong's sales office for further assistance.

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