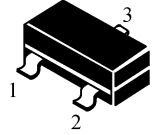


KEL[®]

S9013

SOT-23

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



■FEATURES 特點

Excellent H_{FE} Linearity H_{FE} 線性特性極好

$h_{FE}(2)=25(\text{Min.})$ at $V_{CE}=6V, I_C=400\text{mA}$.

Complementary to S9012 与S9012互补

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

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}	40	Vdc
-Collector-Emitter Voltage 集電極-發射極電壓	V_{CEO}	30	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	500	mAdc
Base-Current 基極電流	I_B	50	mAdc
Collector Power Dissipation 集電極耗散功率	P_C	300	mW
Junction Temperature 結溫	T_j	150	$^\circ\text{C}$
Storage Temperature Range 儲存溫度	T_{stg}	-55~150	$^\circ\text{C}$

■DEVICE MARKING 打標

S9013=J3

KEL S9013



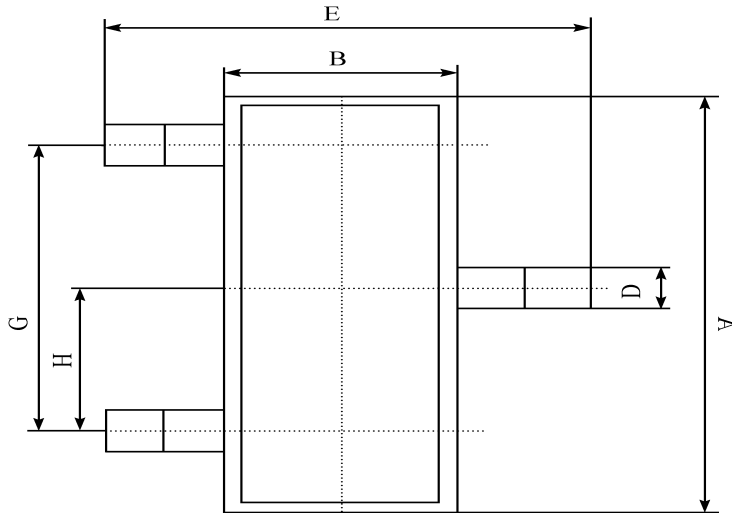
S9013

■ELECTRICAL CHARACRTERISTICS 電特性

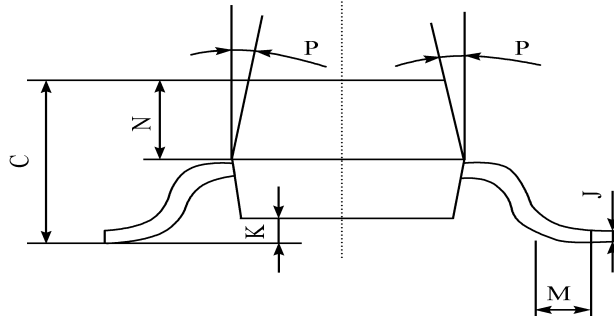
(T_A=25°C unless otherwise noted 如無特殊說明，溫度為 25°C)

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} =35V, I _E =0	—	—	0.1	μ A
Emitter Cutoff Current 發射極截止電流	I _{EBO}	V _{EB} =5V, I _C =0	—	—	0.1	μ A
Collect-Base Breakdown Voltage 集電極-基極擊穿電壓	V _{(BR)CBO}	I _C =100 μ A	40	—	—	V
Collect-Base Breakdown Voltage 集電極-基極擊穿電壓	V _{(BR)CEO}	I _C =1.0mA	30	—	—	V
Emitter-Base Breakdown Voltage 發射極-基極擊穿電壓	V _{(BR)EBO}	I _E =100 μ A	5	—	—	V
DC Current Gain 直流電流增益	h _{FE} (1)	V _{CE} =1V, I _C =100mA	70	—	400	—
	h _{FE} (2)	V _{CE} =6V, I _C =400mA	25	—	—	
Collector-Emitter Saturation Voltage 集電極-發射極飽和壓降	V _{CE(sat)}	I _C =500mA, I _B =50mA	—	—	0.6	V
Base-Emitter Saturation Voltage 基極-發射極電壓	V _{BE}	V _{CE} =1V, I _C =100mA	—	0.8	1.0	V
Transition Frequency 特徵頻率	f _T	V _{CE} =6V, I _C =20mA	150	300	—	MHz
Collector Output Capacitance 輸出電容	C _{ob}	V _{CB} =6V, I _E =0, f=1MHz	—	7.0	10	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>.

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