HAOHAI ELECTRONICS CO.,LTD.

PCR-06 SCRs

PRODUCT SPECIFCATION 英文與中文繁體版本

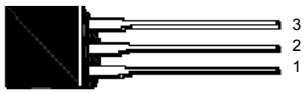
0.6A SCR :高靈敏度 - 微觸發單向可控硅【器件參數】

無鉛產品提供SGS環保認證, 符合歐美RoHS環保指令標準

■QUICK REFERENCE【參考特性】

產品型號 Part Number	工業型號 Industry Part №	通態電流均方值 $I_{T(RMS)}$ (A)	斷態重復峰值電壓 V_{DRM} / V_{RRM} (V)	門極觸發電流 I_{GT}(μA/mA)	封裝外形 Package	包裝方式 Packing	元件標識 Marking
PCR206	PCR206	0.6A	200V	≤200μA	TO-92	1Kpcs/Bulk 10Kpcs/Box 100Kpcs/Box TO-92 Tape: 2000pcs/Box 每包1Kpcs 每盒10Kpcs	 元件標識可按 客戶指定要求
PCR406	PCR406		400V				
PCR506	PCR506		500V				
PCR606	PCR606		600V				
PCR806	PCR806		800V				
說明 Explain	①此規格型號為高靈敏度-微觸發、單向可控硅 ②以常規電壓規格出貨, 高壓規格機種(特殊品種), 批量交期6~8周 ③門極觸發電流IGT值可根據客戶要求細分至多個規格, 單位μA (微安)						

■PINNING: TO-92 (TO-226) or TO-92 Tape & Reel 【TO-92直插封裝 或 TO-92直插編帶封裝】

Pin 管腳排列	Symbol 對應極性	Description 極性名詞	Description 極性含義	Practicality in Pin Arrange 元件實物與管腳排列	Pin Polarity Circuit diagram 腳位與極性 電路符號表示
1	K	Cathode	陰極		1=K 2=G 3=A 
2	G	Gate	門極		
3	A	Anode	陽極		

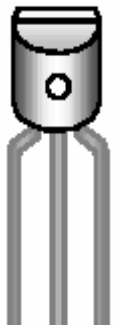
■ABSOLUTE RATINGs (Limiting Values)【額定值參數】

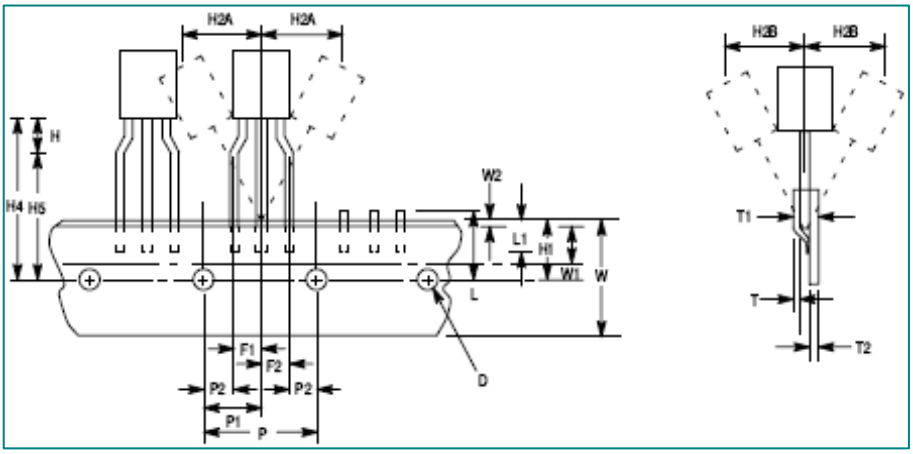
SYMBOL 符號表示	Paramenter & Test Conditions 符號含義 及 參數測試條件說明	Value 數值	Unit 單位
$I_{T(RMS)}$	通態電流均方值: On-State RMS Current (Tc=80℃) 180℃ Conduction Angles	0.6	A
I_{TSM}	通態浪湧電流: ½周期, 60Hz, 正弦波, 不重復 Peak Non-Repetitive Surge Current (½ Cycle, Sine Wave, 60Hz,Tj=25°C)	6	
I_{GM}	正向門極最大電流: Forward Peak Gate Current (Pulse Width ≤1μS, T_C=25°C)	0.6	
I^2t	週期電流平方時間積: Circuit Fusing Consideration (t=8.3mS)	0.35	A^2ses
P_{GM}	門極平均峰值功率: Forward Peak Gate Power (Pulse Width ≤1μS, T_C=25°C)	0.5	W
$P_{G(AV)}$	門極平均散耗功率: Forward Average Gate Power(t=8.3mS, T_C=80°C)	0.05	
V_{DRM} or V_{RRM}	斷態重復峰值電壓: Peak Repetitive Off-State Voltage (Tj=-40~110℃, Sine Wave, 50~60Hz; Gate Open) (見參考特性對應說明)	200~800	V
T j	工作結溫: Operating Junction Temperature Range @ Rate V_{RRM} and V_{DRM}	-40 ~ +110	℃
Tstg	貯存溫度: Storage Temperature Range	-40 ~ +150	
T_L	引腳承受焊錫極限溫度: Lead Solder Temperature (1/16, from case, 10 secs max)	260	

■ELECTRICAL CHARACTERISTICs (Tj=25℃ Unless Otherwise Noted)【電參數】

SYMBOL 符號表示	Paramenter & Test Conditions 參數符號含義 及 測試條件說明	Min 最小值	Typ 典型值	Max 最大值	Unit 單位
I_{GT}	門極 觸發電流: V_D=12V_{DC}, R_L=140Ω (T_C=25°C)	5	50	200	μA
I_H	維持電流: Holding Current (I_T=50mA, V_D=12V_{DC}, R_{GK}=1KΩ, Tc=25°C)	→	0.5	6	mA
I_L	最大接入電流: Latching Current (V_D=12V, I_{GT}=1mA, R_{GK}=1KΩ, Tc=25°C)	→	0.6	7	
V_{GT}	門極 觸發電壓: V_D=12V, R_L=140Ω (Tj=25°C)	→	0.5	0.8	V
V_{TM}	峰值通態電壓: Peak Forward On-State Voltage (I_{TM}=0.4A, tp=380μs)	→	→	1.7	
dv / dt	斷態臨界電壓上升率: Critical Rate of Rise of Off-State Voltage (Tj=125°C)	→	200	→	V/μs
di / dt	通態臨界電流上升率: Critical Rate of Rise of On-State Current	→	→	50	A/μs
R_D	通態輸出阻抗: Dynamic resistance slops Resistance	→	→	1000	mΩ
Rth(j-c)	熱阻-結到外殼: Thermal Resistance-Junction-to-Case	→	→	50	℃/W
Rth(j-a)	熱阻-結到環境: Thermal Resistance-Junction-to-Ambient	→	→	400	

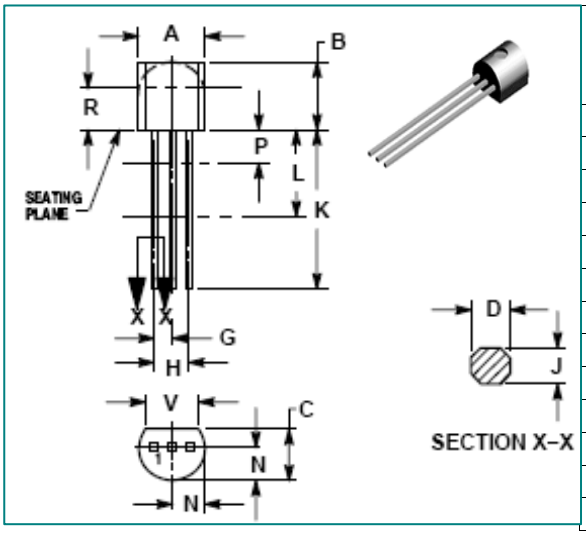
TO-92
Tape & Reel
TO-92
成型腳位
編帶封装
器件尺寸





SYMBOL 符號表示	Ltem 項目詳述	Specification (規格尺寸說明)			
		Inches (英寸單位)		Millimeter (毫米單位)	
		Min (最小)	Max (最大)	Min (最小)	Max (最大)
D	Tape Feedhole Diameter	0.1496	0.1653	3.8	4.2
D2	Component Lead Thickness Dimension	0.015	0.020	0.380	0.510
F1, F2	Component Lead Pitch	0.945	0.11	2.4	2.8
H	Bottom of Component to Seating Plane	0.059	0.156	1.5	4
H1	Feedhole Location	0.3346	0.3741	8.5	9.5
H2A	Deflection Left or Right	0	0.039	0	1
H2B	Deflection Front or Rear	0	0.051	0	1
H4	Feedhole to Bottom of Component	0.7086	0.768	18	19.5
H5	Feedhole to Seating Plane	0.61	0.649	15.5	16.5
L	Defective Unit Clipped Dimension	0.3346	0.433	8.5	11
L1	Lead Wire Enclosure	0.09842	---	2.5	----
P	Feedhole Pitch	0.4921	0.5079	12.5	12.9
P1	Feedhole Center to Center Lead	0.2342	0.2658	5.95	6.75
P2	First Lead Spacing Dimension	0.1397	0.1556	3.55	3.95
T	Adhesive Tape Thickness	0.06	0.08	0.15	0.200
T1	Overall Taped Package Thickness	---	0.0567	---	1.440
T2	Carrier Strip Thickness	0.014	0.027	0.350	0.650
W	Carrier Strip Width	0.6889	0.7481	17.50	19.00
W1	Adhesive Tape Width	0.2165	0.2841	5.50	6.30
W2	Adhesive Tape Position	0.0059	0.01968	0.15	0.50

TO-92
or
TO-226
器件尺寸



DIM	Specification (規格尺寸說明)			
	Inches (英寸單位)		Millimeter (毫米單位)	
	Min (最小)	Max (最大)	Min (最小)	Max (最大)
A	0.175	0.205	4.450	5.200
B	0.170	0.210	4.320	5.330
C	0.125	0.165	3.180	4.190
D	0.016	0.021	0.407	0.533
G	0.045	0.055	1.150	1.390
H	0.095	0.105	2.420	2.660
J	0.015	0.020	0.390	0.500
K	0.500	-----	12.70	----
L	0.250	-----	6.350	----
N	0.080	0.105	2.040	2.660
P	-----	0.100	----	2.540
R	0.115	----	2.930	----
V	0.135	----	3.430	----

Fig. 1: Maximum average power dissipation versus average on-state current.

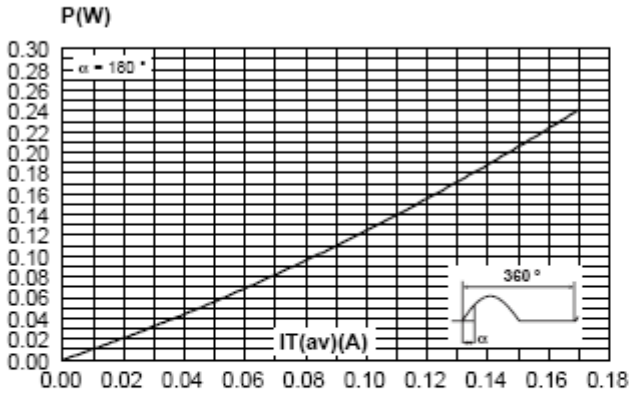


Fig. 2: Average and D.C. on-state current versus ambient temperature.

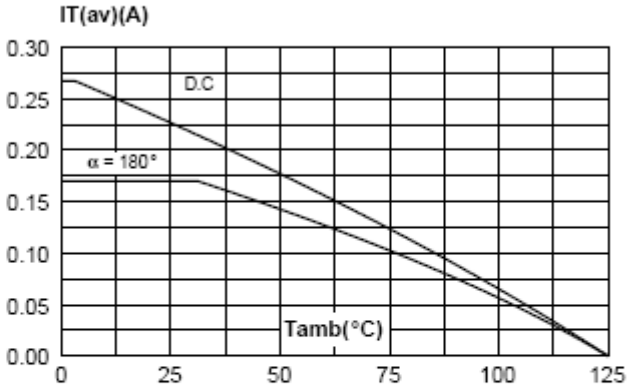


Fig. 3: Relative variation of thermal impedance junction to ambient versus pulse duration.

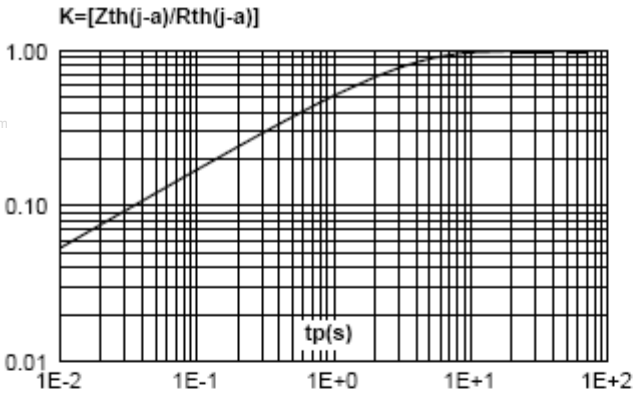


Fig. 4: Relative variation of gate trigger current, holding current and latching current versus junction temperature (typical values).

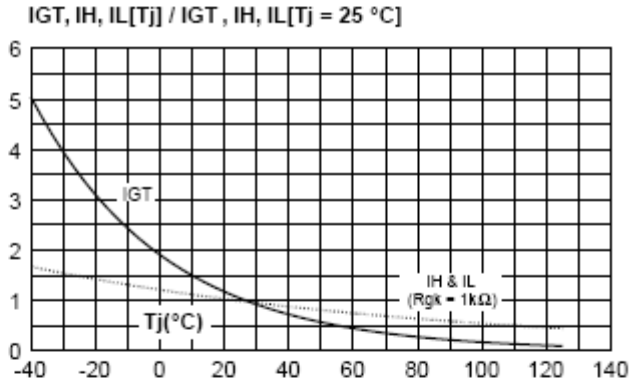


Fig. 5: Relative variation of holding current versus gate-cathode resistance (typical values).

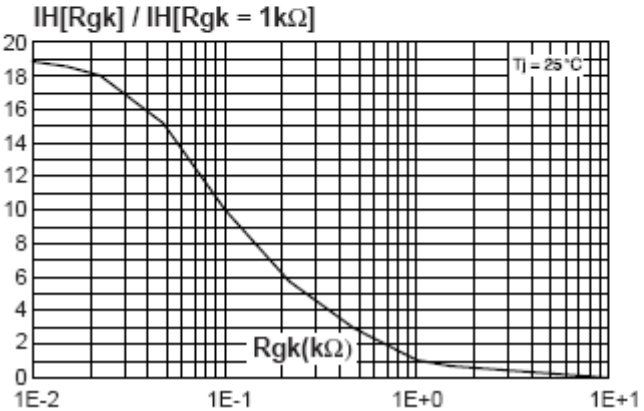


Fig. 6: Relative variation of dV/dt immunity versus gate-cathode resistance (typical values).