

0.8A SCR : 0.8A 高靈敏度貼片單向可控硅 【器件參數】

RoHS 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 No	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 $I_{GT}(\mu A/mA)$	封裝外形 Package	包裝方式 Packing	元件標識 Marking
MMCR100-3	MMCR100-3	0.8A	100V	$\leq 200\mu A$	SMD SOT-23	3Kpcs/Reel 30Kpcs/Box 每卷3000只 每盒30000只 0.01g / Pcs 每枚重量0.01克	 or
MMCR100-4	MMCR100-4		200V				
MMCR100-6	MMCR100-6		400V				
MMCR100-8	MMCR100-8		600V				
MMCR100-10	MMCR100-10		800V				
說明 Explain	①此規格為貼片高靈敏度-微觸發、SOT-23表面貼裝單向可控硅 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: SOT-23 (SC-59) Tape & Reel 【片狀-表面貼SOT-23封裝, 載帶卷盤包裝】 "MMBT/MMCR" 表示 SOT-23

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	G	Gate	門極		
2	A	Anode	陽極		
3	K	Cathode	陰極		

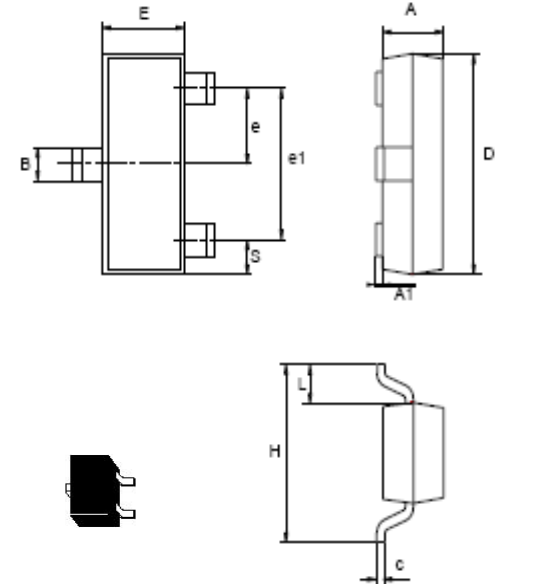
■ ABSOLUTE RATINGS (Limiting Values) 【額定值參數】

SYMBOL 符號表示	Parameter & 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 ($T_c=80^\circ C$) 180° Conduction Angles	0.8	A
I_{TSM}	通態浪湧電流: 1/2周期, 60Hz, 正弦波, 不重複 Peak Non-Repetitive Surge Current (1/2 Cycle, Sine Wave, 60Hz, $T_j=25^\circ C$)	10	
I_{GM}	正向門極最大電流: Forward Peak Gate Current (Pulse Width $\leq 1\mu s$, $T_c=25^\circ C$)	1	
I^2t	週期電流平方時間積: Circuit Fusing Consideration ($t=8.3mS$)	0.35	A ² ses
P_{GM}	門極平均峰值功率: Forward Peak Gate Power (Pulse Width $\leq 1\mu s$, $T_c=25^\circ C$)	0.5	W
$P_{G(AV)}$	門極平均散耗功率: Forward Average Gate Power($t=8.3mS$, $T_c=80^\circ C$)	0.05	
V_{DRM} or V_{RRM}	斷態重復峰值電壓: Peak Repetitive Off-State Voltage ($T_j=-40\sim 110^\circ C$, Sine Wave, 50~60Hz; Gate Open) (見參考特性對應說明)	100~800	V
T_j	工作結溫: Operating Junction Temperature Range @ Rate V_{RRM} and V_{DRM}	-40 ~ +125	°C
T_{stg}	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°C Unless Otherwise Noted) 【電參數】

SYMBOL 符號表示	Parameter & 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: $V_D=12V_{DC}$, $R_L=140\Omega$ ($T_c=25^\circ C$)	5	50	200	μA
I_H	維持電流: Holding Current ($I_T=50mA$, $V_D=12V_{DC}$, $R_{GK}=1K\Omega$, $T_c=25^\circ C$)	→	0.5	6	mA
I_L	最大接入電流: Latching Current ($V_D=12V$, $I_{GT}=1mA$, $R_{GK}=1K\Omega$, $T_c=25^\circ C$)	→	0.6	7	
V_{GT}	門極觸發電壓: $V_D=12V$, $R_L=140\Omega$ ($T_j=25^\circ C$)	→	0.5	0.8	V
V_{TM}	峰值通態電壓: Peak Forward On-State Voltage ($I_{TM}=0.4A$, $t_p=380\mu s$)	→	→	1.7	
dv/dt	斷態臨界電壓上升率: Critical Rate of Rise of Off-State Voltage ($T_j=125^\circ C$)	→	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 slopes Resistance	→	→	1000	m Ω
$R_{th(j-c)}$	熱阻-結到外殼: Thermal Resistance-Junction-to-Case	→	→	50	°C/W
$R_{th(j-a)}$	熱阻-結到環境: Thermal Resistance-Junction-to-Ambient	→	→	400	

PACKAGE MECHANICAL DATA SOT-23



REF.	DIMENSIONS			
	毫米單位 mm		英寸單位 Inch	
	Min.	Max.	Min.	Max.
A	0.89	1.4	0.035	0.055
A1	0	0.1	0	0.004
B	0.3	0.51	0.012	0.02
c	0.085	0.18	0.003	0.007
D	2.75	3.04	0.108	0.12
e	0.85	1.05	0.033	0.041
e1	1.7	2.1	0.067	0.083
E	1.2	1.6	0.047	0.063
H	2.1	2.75	0.083	0.108
L	0.6 typ.		0.024 typ.	
S	0.35	0.65	0.014	0.026

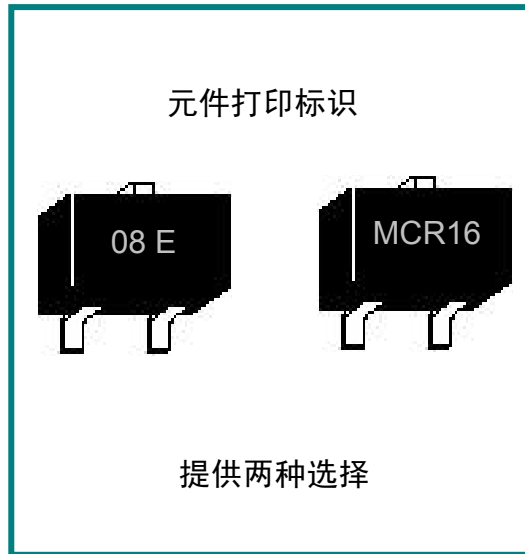
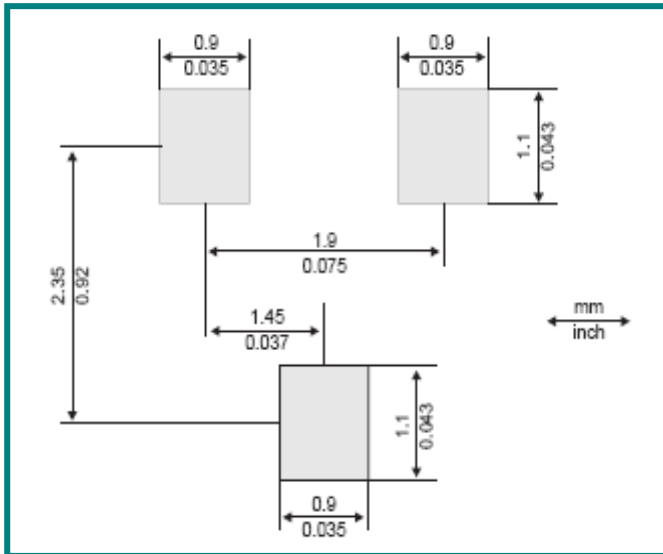


Fig. 1: Maximum average power dissipation versus average on-state current.

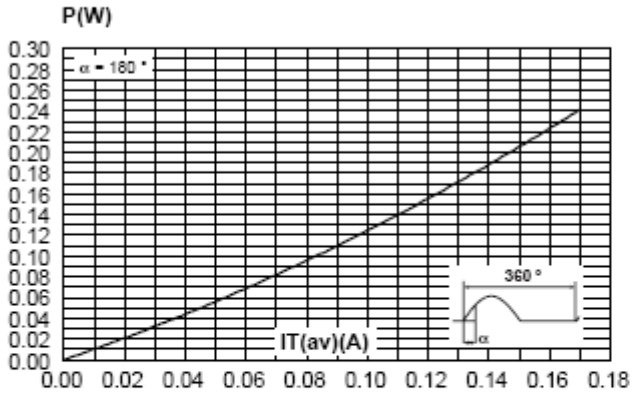


Fig. 3: Relative variation of thermal impedance junction to ambient versus pulse duration.

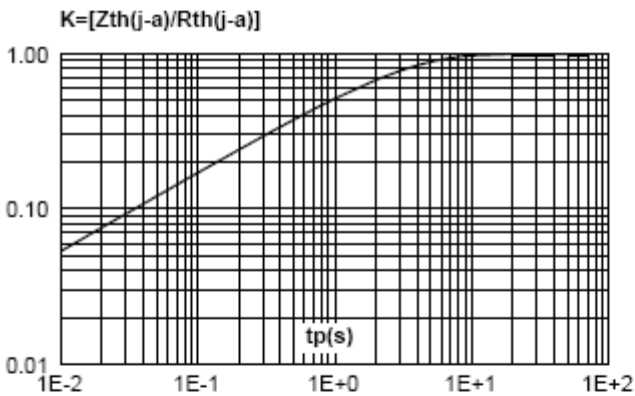


Fig. 5: Relative variation of holding current versus gate-cathode resistance (typical values).

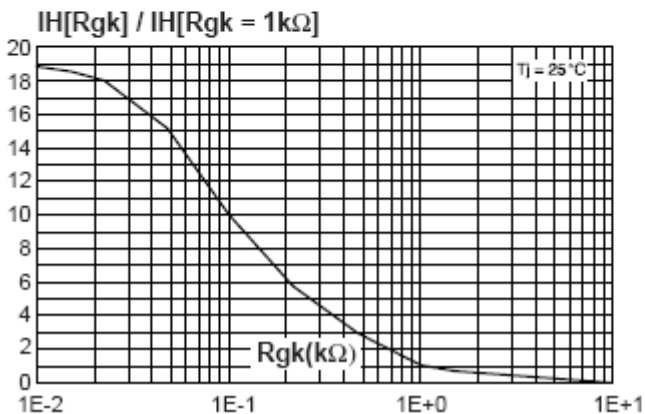


Fig. 2: Average and D.C. on-state current versus ambient temperature.

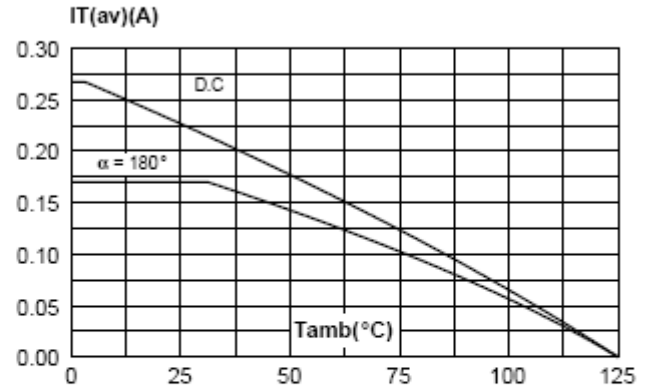


Fig. 4: Relative variation of gate trigger current, holding current and latching current versus junction temperature (typical values).

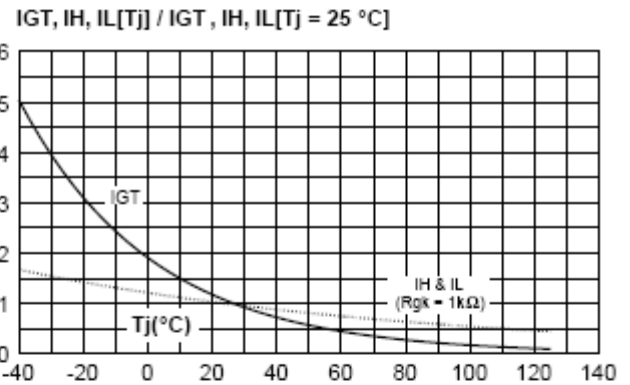
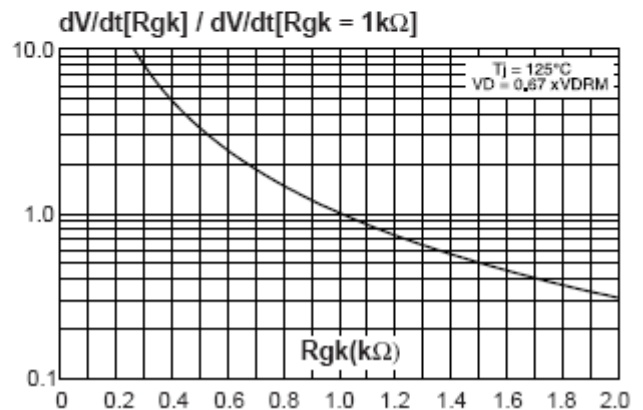


Fig. 6: Relative variation of dV/dt immunity versus gate-cathode resistance (typical values).





註冊商標 仿冒必究!

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