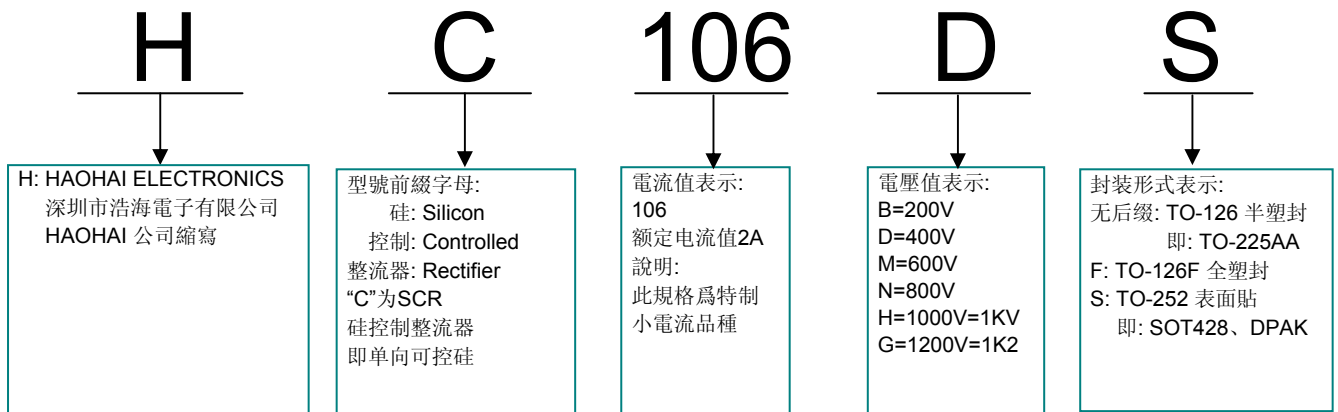


■ Product Model Reference & Naming 【產品型號參考及型號命名】

2A (Amperes)	產品型號列表、種類區分、型號對應電壓值						觸發電流 單位:微安
	200V	400V	600V	800V	1000V	1200V	
TO-126 or TO-225AA 直插TO-126半封裝	C106B	C106D	C106M	C106N	C106H	C106G	I <sub>GT</sub> ≤200uA 即 ≤0.2 mA
TO-126F 直插TO-126全封裝	C106BF	C106DF	C106MF	C106NF	C106HF	C106GF	
TO-252 or SOT428 貼片TO-252(DPAK)封裝	C106BS	C106DS	C106MS	C106NS	C106HS	C106GS	
说明 Explain	已停产	标准品种	需定制	暫無量產	暫無量產	暫無量產	
可代替的其它 工业型号产品	MCR22-4D, MCR22-6D, MCR22-8D, MCR22-10D, MCR106-4, MCR106-6, MCR106-8, MCR106-10 MCR708, MCR708A, MCR708AT, MCR708AT4, MCR714, MCR714A, MCR714AT, MCR714AT4 MCR716, MCR716A, MCR716AT, MCR716AT4, MCR718, MCR718A, MCR718AT, MCR718AT4 3P4J-Z, 5P4J-Z, 5P6J-Z, CR5AS-8, CR5AS-12, SMG2D60D, S2D60D, SMG3D60C, S3D6C SMG5C60D, S5C6D, S2004DS1, S2004DS2, S4004DS1, S4004DS2, S2006DS2, S2006DS3 S6004DS1, S6004DS2, T106B, T106M, T107B, T107M						



■ PINNING: TO-126 (TO-225AA, CASE077) ; TO-252 (SOT428, DPAK)

【TO-126直插半塑封】、【SMD 貼片封裝】

Pin 管腳排列	Symbol 對應極性	Description 極性名詞	Description 極性含義	SOT428 TO-252 SMD	TO-126 TO-225AA	Marking 元件標識	Pin Polarity Circuit Diagram 腳位與極性 電路符號表示
1	K	Cathode	陰極				
2	A	Anode	陽極				
3	G	Gate	門-控制極				
4	mb	mounting base	散熱片				
◇TO-252表面貼, 元件標識可按客戶指定要求 ◇2500Pcs/Reel, 2.5Kpcs/Box, 10Kpcs/Box ◇TO-126袋裝, 每袋250只, 每盒5K, 每箱50Kpcs ◇TO-252: 1.10g/Pcs, 每枚元件淨重1.10克 ◇TO-126: 0.75g/Pcs, 每枚元件淨重0.75克							

■ ABSOLUTE RATINGS (Limiting Values) 【額定值參數極限值】 ■ THERMAL RESISTANCES 【熱阻】 ■ 絕緣電阻特徵

SYMBOL 符號表示	Signification in Symbol 器件參數字母符號含義	Test Conditions 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°C) 180° Conduction Angles		2	A
$I_{T(AV)}$	通態平均電流: Average On-State Current (180° Conduction Angles, TC=80°C)		2.5	
$I_{TSM}$	通態浪湧電流(通態不重複峰值電流): ½周期, 正弦波, 不重複, 結溫110度 Non-Repetitive Peak on-state Current (½ Cycle, Sine Wave, 60Hz, Tj=110°C)		10	
$I_{GM}$	門極峰值電流: Forward Peak Gate Current ((Pulse Width 1.0 sec, TC=80°C)		0.2	
$I^2t$	週期電流平方時間積: Circuit Fusing Consideration (t=8.3ms)		1.65	A <sup>2</sup> ses
$dI_T / dt$	通態臨界電流上升率: Repetitive rate of rise of on-state current after triggering ( $I_{GT1} \sim I_{GT3}$ )		50	A/μs
$V_{DRM} / V_{RRM}$	斷態重複峰值電壓: Repetitive peak off-state voltages	參考型號對照列表	200~1200	V
$V_{GM}$	門極峰值電壓: Peak gate voltage		5	
$V_{isol}$	引腳到外殼最大絕緣電壓: R.M.S. isolation voltage from all three terminals to external heatsink		---	
$P_{G(AV)}$	門極平均散耗功率: Average gate power dissipation (Pulse Width 1.0 sec, TC=80°C)		0.1	W
$P_{GM}$	門極最大峰值功率: Peak gate power (Pulse Width 1.0 sec, TC=80°C)		5.0	
$T_j$	工作結溫: Operating Junction Temperature Range (Rate VRRM & VDRM)		-40 ~ +125	°C
$T_{stg}$	貯存溫度: Storage Temperature Range (In Free Air)		-40 ~ +150	
$T_L$	引腳承受受錫極限溫度: Max. Lead Temperature for Soldering Purposes 1/8" (From Case for 10 Seconds)		260	
$R_{th(j-mb)}$	熱阻-結到外殼: Thermal Resistance Junction to mounting base	Full Cycle: 全波 Half Cycle: 半波	3 3.7	°C/W
$R_{th(j-a)}$	熱阻-結到環境: Thermal Resistance-Junction-to-Ambient	In Free Air	75	

■ 说明/Explain: 电压600V以上规格品种需订制

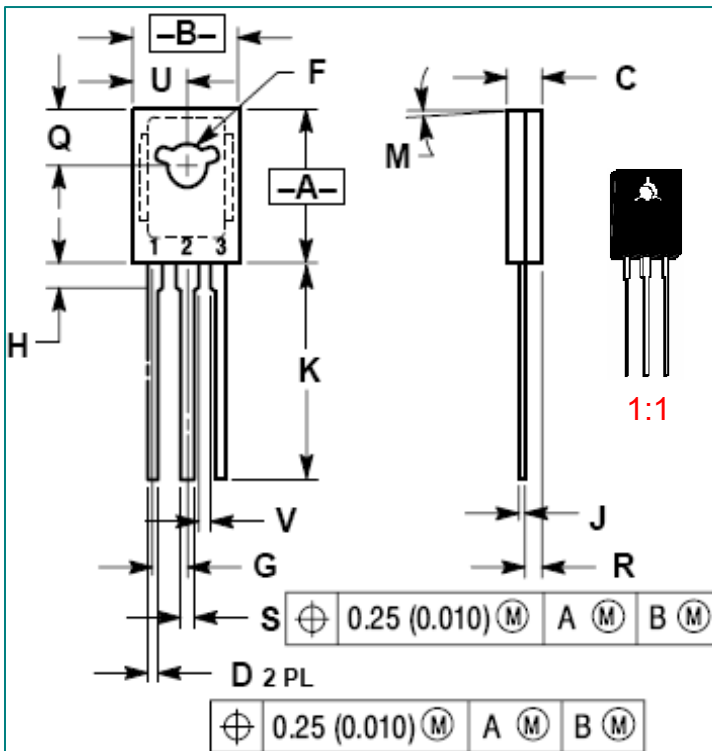
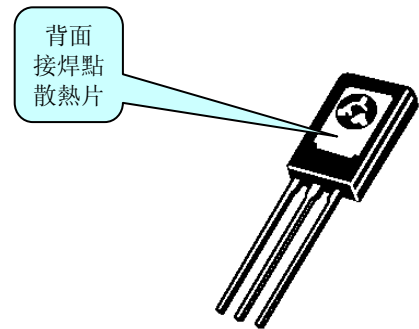
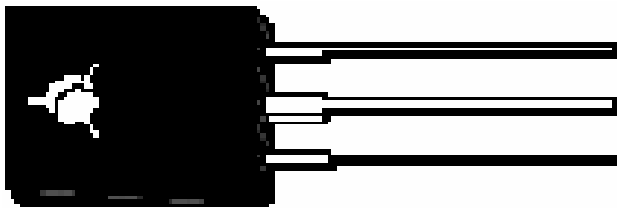
■ STATIC CHARACTERISTICS 【静态特性】 ■ DYNAMIC CHARACTERISTICS 【動態特性】

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	
		Min. 最小值	Typ. 典型值	Max. 最大值		
$I_{GT}$	門極觸發電流 ( $V_{AK}=6V_{dc}, R_L=100\Omega$ )	$T_j=+25^\circ C$	→	15	200	μA
		$T_j=-40^\circ C$	→	35	500	
$I_{DRM}$ $I_{RRM}$	反向阻斷重複峰值電流: Peak Repetitive Forward or Reverse Blocking Current $V_{AK}=\text{Rated } V_{DRM} \text{ or } V_{RRM}, R_{GK}=1K\Omega$	$T_j=+25^\circ C$	→	→	10	μA
		$T_j=+110^\circ C$	→	→	100	
$I_H$	維持電流: Holding Current $V_D=12V_{dc}, I_{GT}=20mA, \text{ Gate Open}$	$T_j=+25^\circ C$	→	0.19	3.0	mA
		$T_j=-40^\circ C$	→	0.33	6.0	
		$T_j=+110^\circ C$	→	0.07	2.0	
$I_L$	最大接入電流(閉鎖/阻塞電流): Latching Current $V_{AK}=12V, I_{GT}=20mA$	$T_j=+25^\circ C$	→	0.20	5.0	mA
		$T_j=-40^\circ C$	→	0.35	7.0	
$V_{GT}$	門極觸發電壓: Gate trigger voltage Continuous dc, ( $V_{AK}=6V_{dc}, R_L=100\Omega$ )	$T_j=+25^\circ C$	0.40	0.60	0.80	V
		$T_j=-40^\circ C$	0.50	0.75	1.00	
$V_{TM}$	通態峰值電壓: Peak Forward On-State Voltage	$I_{TM}=4A$	→	→	2.2	V
$V_{GRM}$	門極最高反向電壓: Peak Reverse Gate Voltage	$I_{GR}=10A$	→	→	6.0	V
$V_{GD}$	門極不觸發電壓: Gate Non-Trigger Voltage(Continuous dc, $V_{AK}=12V, R_L=100\Omega, T_j=110^\circ C$ )		0.2	←	←	V
$dV_D / dt$	斷態臨界電壓上升率: Critical Rate of Rise of Off-State Voltage $V_{AK}=\text{Rated } V_{DRM}, \text{ Exponential Waveform}, R_{GK}=1K\Omega, T_j=110^\circ C$		→	8.0	←	V/μs

支持綠色環保!  
該產品已實行無鉛制程封裝  
符合RoHS環保指令標準!

RoHS  

PACKAGE MECHANICAL DATA (mm)  
TO-126 (TO-225AA) 直插半塑 封裝尺寸 (單位:毫米)

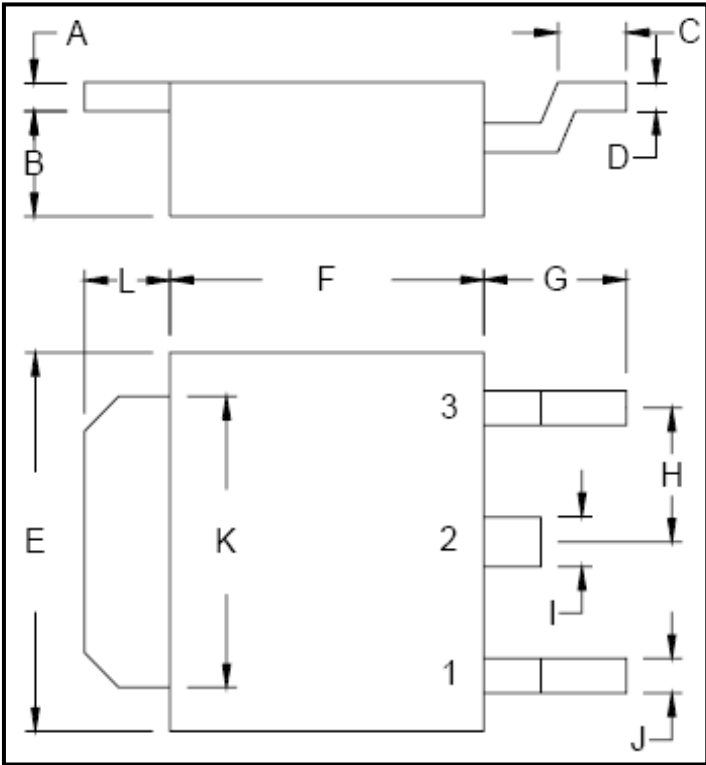
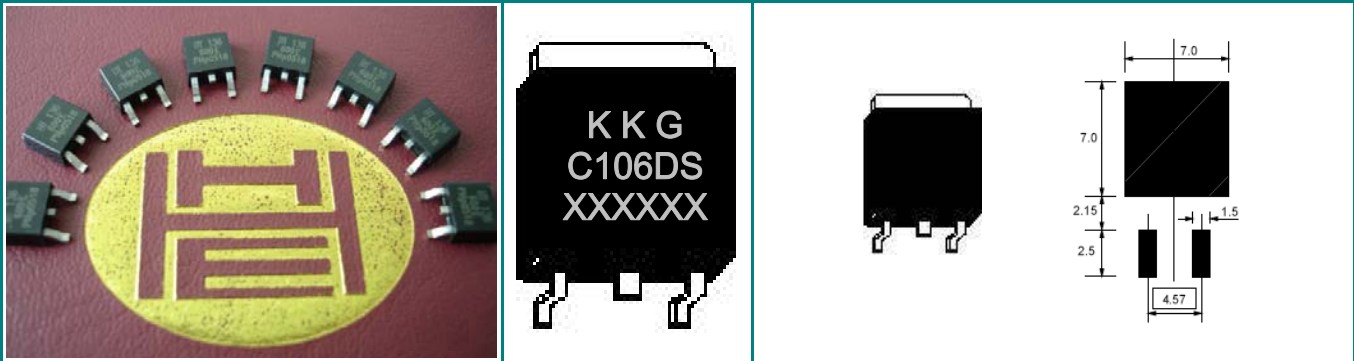


DIM.	英寸單位 INCHES		毫米單位 MILLIMETERS	
	Min.	Max.	Min.	Max.
A	0.425	0.435	10.80	11.04
B	0.295	0.305	7.500	7.740
C	0.095	0.105	2.420	2.660
D	0.020	0.026	0.510	0.660
F	0.115	0.130	2.930	3.300
G	0.094 Bcs		2.93 Bsc	
H	0.050	0.095	1.270	2.410
J	0.015	0.025	0.390	0.630
K	0.575	0.655	14.61	16.63
M	5° TYP.		5° TYP.	
Q	0.148	0.158	3.760	4.010
R	0.045	0.065	1.150	1.650
S	0.025	0.035	0.640	0.880
U	0.145	0.155	3.690	3.930
V	0.040	----	1.020	----

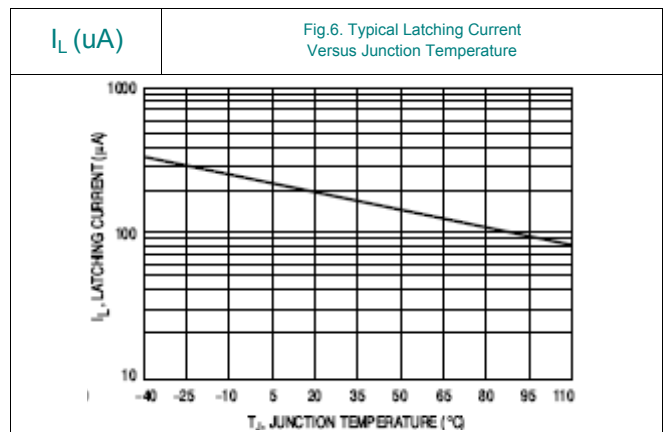
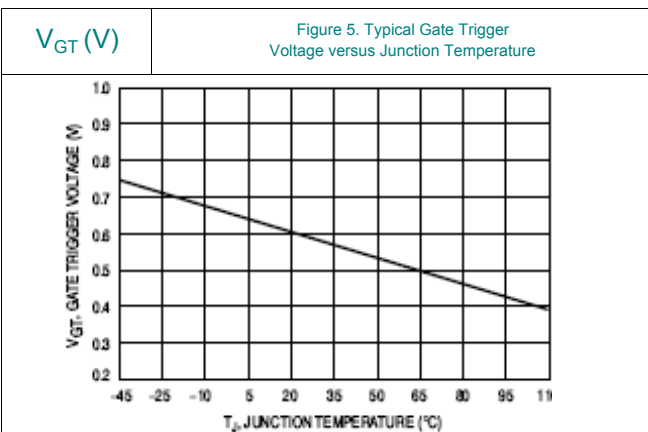
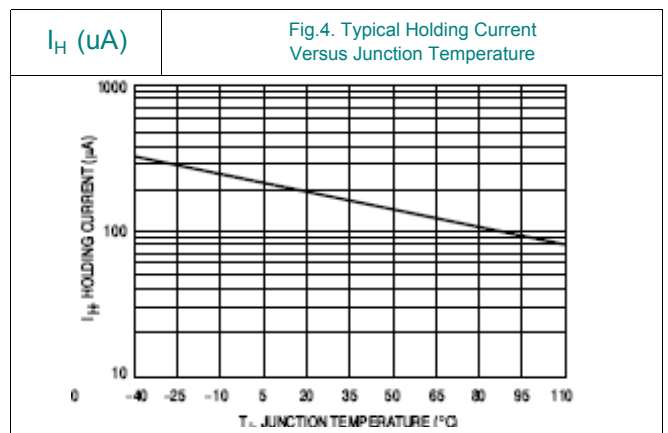
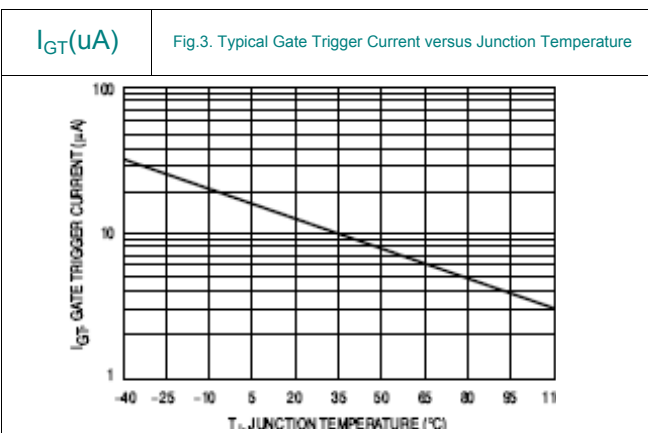
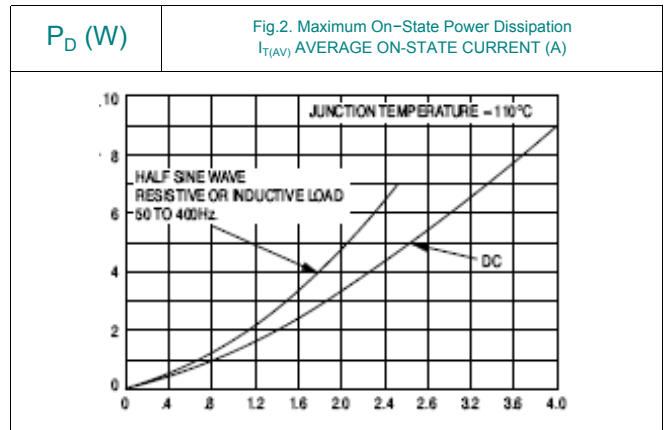
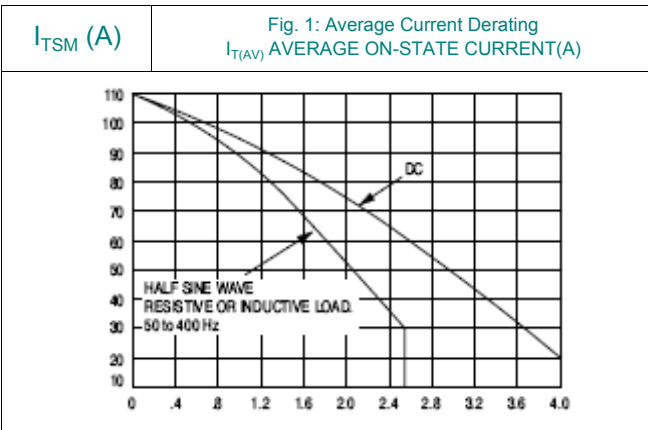
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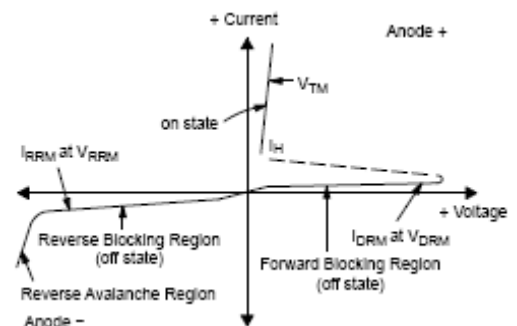
PACKAGE MECHANICAL DATA (mm)  
TO-252 (SOT428、DPAK) 片式表面貼 封裝尺寸 (單位:毫米)



單位 Dim	最小值 Min.	最大值 Max.
A	0.45	0.55
B	1.70	1.90
C	0.90	1.50
D	0.45	0.60
E	6.40	6.80
F	5.40	5.80
G	2.20	2.80
H	--	2.30
I	0.70	0.90
J	--	0.90
K	5.20	5.50
L	1.40	1.60
尺寸單位: 毫米 mm		



Symbol	Parameter
$V_{DRM}$	Peak Repetitive Off State Forward Voltage
$I_{DRM}$	Peak Forward Blocking Current
$V_{RRM}$	Peak Repetitive Off State Reverse Voltage
$I_{RRM}$	Peak Reverse Blocking Current
$V_{TM}$	Peak On State Voltage
$I_H$	Holding Current



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