



CD4080E1A

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	55A
V_{DRM}/V_{RRM}	1800V
I_{GT}	20-70mA

用途

- 半交流开关
- 相位控制

APPLICATIONS

- Half AC switching
- Phase control

产品特性

- 玻璃钝化芯片，高可靠性和一致性
- 低通态电流和高浪涌电流能力
- 环保 RoHS 产品

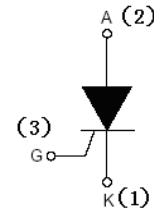
FEATURES

- Glass-passivated mesa chip for reliability and uniform
- Low on-state voltage and High I_{TSM}
- RoHS products

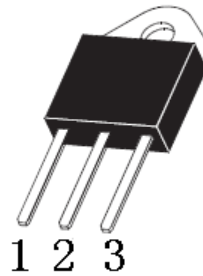
订货信息 ORDER MESSAGE

订货型号 Order codes				印 记 Marking	封 装 Package
有卤-条管	无卤-条管	有卤-袋装	无卤-袋装		
Halogen-Tube	halogen-Free-Tube	Halogen-Reel	Halogen-Free-Reel		
CD4080E1A-GF-B	CD4080E1A -GF-BR	N/A	N/A	CD4080E1A	TOP3

封装 Package



序号 Pin	引线名称 Description
1	阴极 K
2	阳极 A
3	门极 G



TOP3
1: K
2: A
3: G

Insulated



绝对最大额定值 ABSOLUTE RATINGS (Tc=25°C)

项 目 Parameter	符 号 Symbol	数 值 Value	单 位 Unit
断态重复峰值电压 Repetitive peak off-state voltage	V _{DRM}	1800	V
反向重复峰值电压 Repetitive peak reverse voltage	V _{RRM}	1800	V
通态平均电流 Average on-state current	I _{T(AV)}	35	A
通态方均根电流 On-state RMS current (all conduction angles)	I _{T(RMS)}	55	A
非重复浪涌峰值通态电流 Non- repetitive surge peak on-state current (half sine wave ,t=10ms)	I _{TSM}	550	A
I ² t for fusing (t=10ms)	I ² t	1500	A ² s
门极峰值电流 Peak gate current	I _{GM}	5	A
门极峰值电压 Peak gate voltage	V _{GM}	5	V
反向门极峰值电压 Peak reverses gate voltage	V _{RGM}	5	V
门极平均功率 Average gate power (over any 20ms period)	P _{G(AV)}	1	W
存储温度 Storage temperature	T _{stg}	-40~150	°C
操作结温 Operation junction temperature	T _J	125	°C

静态特性 STATIC CHARACTERISTICS (Tc=25°C unless otherwise stated)

项 目 Parameter	符号 Symbol	测试条件 Tests conditions	最小 min	典型 typ	最大 max	单位 Unit
断态峰值重复电流 Peak Repetitive Blocking Current	I _{DRM}	V _{DM} = V _{DRM(MAX)} , T _J =125°C	-	-	8.0	mA
反向峰值重复电流 Peak Repetitive Reverse Current	I _{RRM}	V _{RM} = V _{RRM(MAX)} , T _J =125°C	-	-	8.0	mA
峰值通态电压 Peak on-state voltage	V _{TM}	I _{TM} =80A	-	-	1.80	V
门极触发电流 Gate trigger current	I _{GT}	V _{DM} =12V, I _T =0.1A	20	-	70	mA
门极触发电压 Gate trigger voltage	V _{GT}	V _{DM} =12V, I _T =0.1A	-	-	1.5	V
维持电流 Holding current	I _H	V _{DM} =12V, I _{GT} =0.5A	-	-	200	mA
擎住电流 Latching current	I _L	V _{DM} =12V, I _{GT} =0.1A	-	-	250	mA

动态特性 DYNAMIC CHARACTERISTICS (Tc=25°C unless otherwise stated)

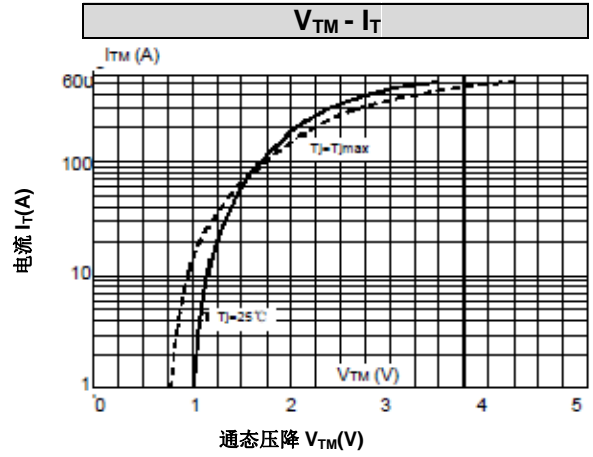
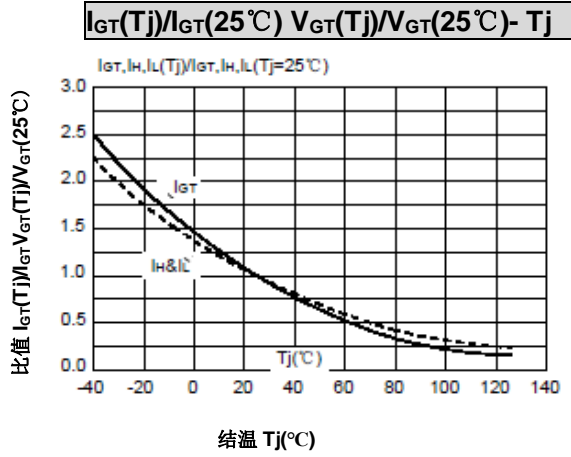
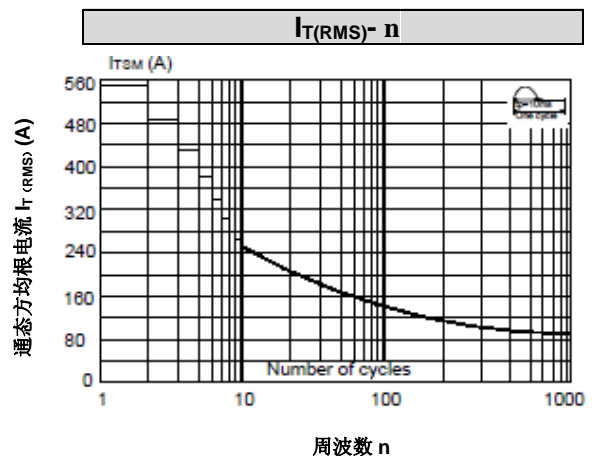
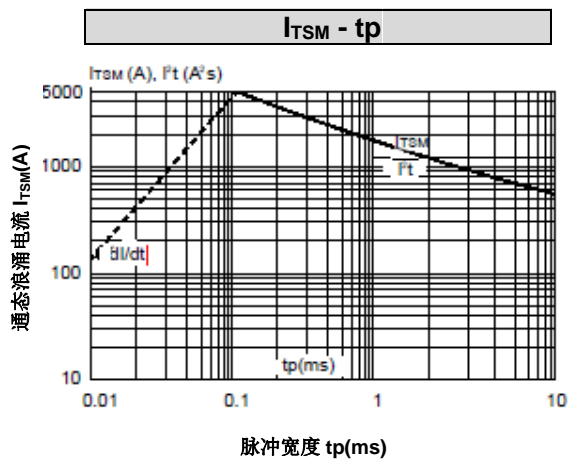
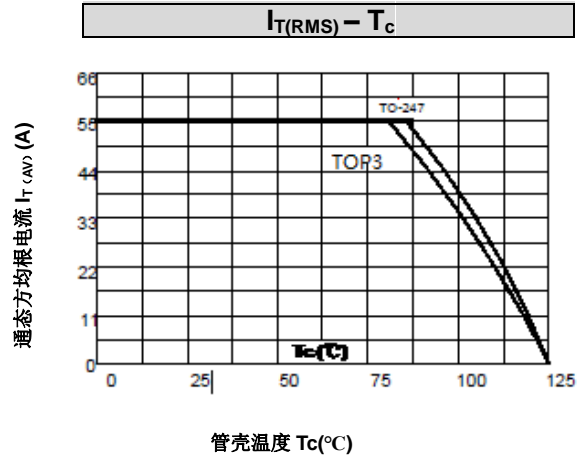
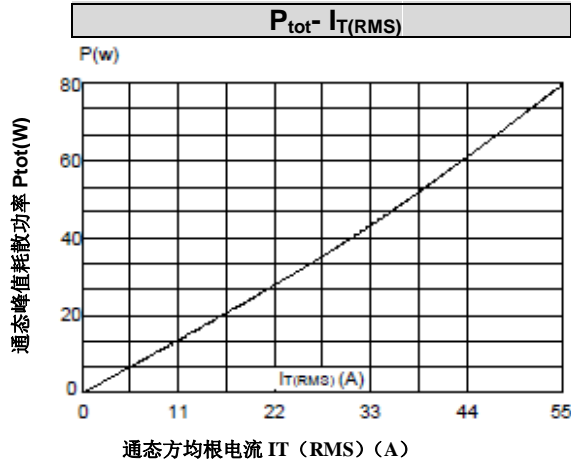
项 目 Parameter	符号 Symbol	测试条件 Tests conditions	最小 min	典型 typ	最大 max	单位 Unit
断态临界电压上升率 Critical rate of rise of off- state voltage	dV/dt	V _{DM} =67% V _{DRM(MAX)} , T _J =125°C	1000	-	-	V/μs

热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	值 value	单位 Unit
结到管壳的热阻 Thermal resistance junction to case	R _{th(j-c)}	0.65	°C/W



特征曲线 ELECTRICAL CHARACTERISTICS (curves)

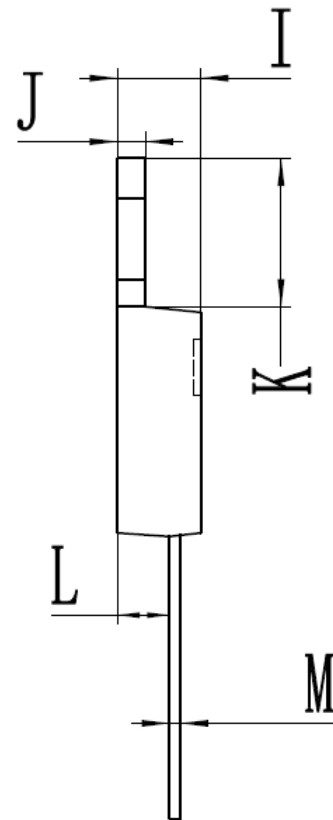
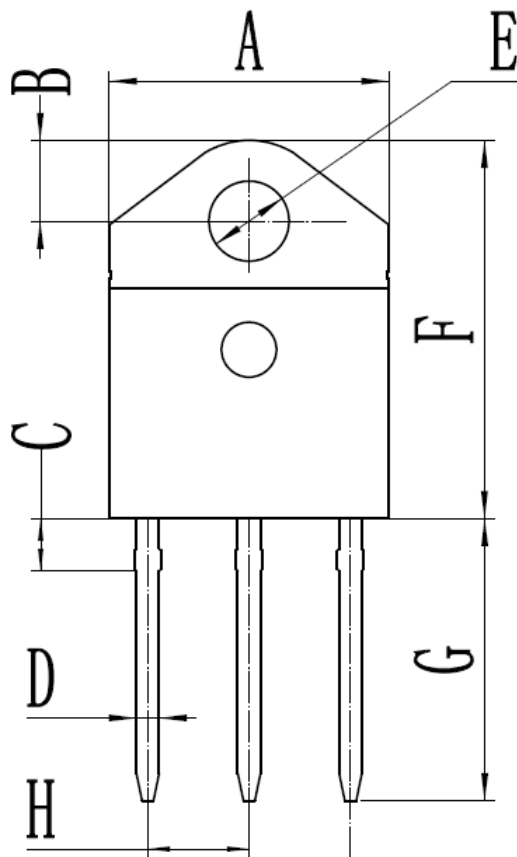




外形尺寸 PACKAGE MECHANICAL DATA

TOP3

单位 Unit : mm



SYMBOL	MM	
	MIN	MAX
A	14.80	15.45
B	4.00	4.70
C	2.45	3.25
D	1.10	1.35
E	4.10	4.35
F	20.15	20.80
G	14.95	15.60
H	5.30	5.65
I	4.35	4.70
J	1.38	1.65
K	7.80	8.25
L	2.68	3.00
M	0.50	0.75



注意事项

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