CS2010H1A

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	20A
V_{DRM}	800V
I_{GT}	10mA

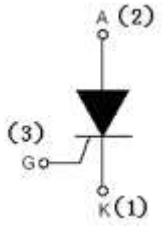
用途 APPLICATIONS

- 交流开关 AC switching
- 相位控制 Phase control

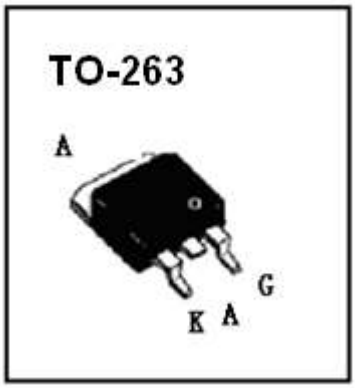
产品特性 FEATURES

- 玻璃钝化芯片高可靠性、一致性 Glass-passivated mesa chip for reliability and uniform
- 低通态电压和高浪涌电流能力 Low on-state voltage and High I_{TSM}
- 环保 RoHS 产品 RoHS products

封装 Package



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



订货信息 ORDER MESSAGES

订 货 型 号 Order codes				印 记 Marking	封 装 Package
有卤-条管	无卤-条管	有卤-编带	无卤-编带		
Halogen-Tube	Halogen-Free-Tube	Halogen-Reel	Halogen-Free-Reel		
CS2010H1A-S-B	CS2010H1A-S-BR	CS2010H1A-A-A	CS2010H1A-S-AR	CS2010H1A	TO-263

绝对最大额定值 ABSOLUTE RATINGS (T_C=25℃)

项 目 Parameter	符 号 Symbol	试 验 条 件 Condition	数 值 Value	单位 Unit
重复峰值断态电压 Repetitive peak off-state voltage	V_{DRM}		±960	V
通态方均根电流 On-state RMS current	$I_{T(RMS)}$	full sine wave	20	A
非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current	I_{TSM}	full sine wave ,t=20ms	180	A
		full sine wave ,t=16.7ms	197	A
	I^2t	t=10ms	162	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	dI/dt	I_{TM}=20A, I_G=0.2A, dI_G/dt=0.2A/μs	100	A/μs
峰值门极电流 Peak gate current	I_{GM}		4	A
峰值门极电压 Peak gate voltage	V_{GM}		5	V
峰值门极功率 Peak gate power	P_{GM}		5	W
平均门极功率 Average gate power	$P_{G(AV)}$	over any 20ms period	1	W
存储温度 Storage temperature	T_{stg}		-40~150	℃
操作结温 Operation junction temperature	T_{VJ}		150	℃

电特性 ELECTRICAL CHARACTERISTIC (T_C=25℃)

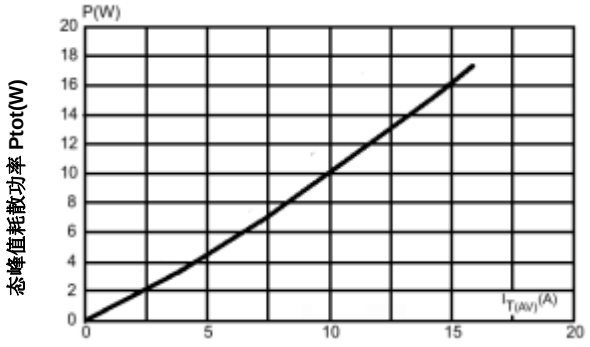
项　　目 Parameter	符　号 Symbol	测 试 条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
峰值重复断态电流 Peak Repetitive Blocking Current	I_{DRM}	$V_{DM}=V_{DRM}$, Tj=150℃, gate open	-	-	2	mA
峰值通态电压 Peak on-state voltage	V_{TM}	I_{TM}=16A	-		1.45	V
门极触发电流 Gate trigger current	I_{GT}	V_{DM}=12V,R_L=100Ω	-	5	10	mA
门极触发电压 Gate trigger voltage	V_{GT}	V_{DM}=12V,R_L=100Ω	-	-	1.5	V
维持电流 Holding current	I_H	V_{DM}=12V, I_{GT}=0.1A	-	-	50	mA
擎住电流 Latching current	I_L	V_{DM}=12V,I_{GT}=0.1A	-	-	60	mA
断态临界电压上升率 Rise of off- state voltage	dV/dt	V_{DM}=67% $V_{DRM(MAX)}$, Tj=150℃, gate open	-	750	-	V/μs

热特性 THERMAL CHARACTERISTIC

项　　目 Parameter	符　号 Symbol	条　　件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
结到管壳的热阻 Thermal resistance junction to case	$R_{th(j-c)}$	full cycle(TO-263)			4.0	℃/W

特征曲线 ELECTRICAL CHARACTERISTICS (curves)

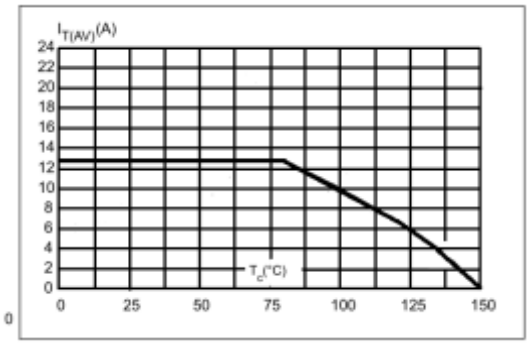
P_{tot}- $I_{T(AV)}$



态峰值耗散功率 Ptot(W)

均值电流 $I_{T(AV)}$（A）

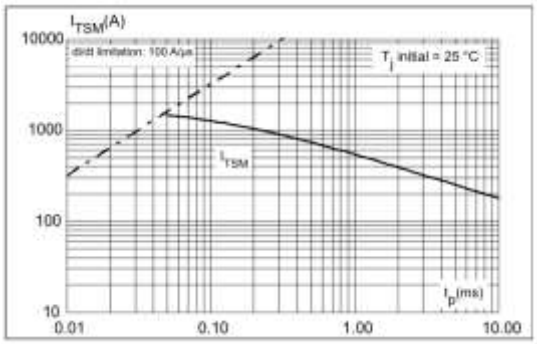
$I_{T(AV)}$ - T_C



均值电流 $I_{T(AV)}$ (A)

管壳温度 T_C (℃)

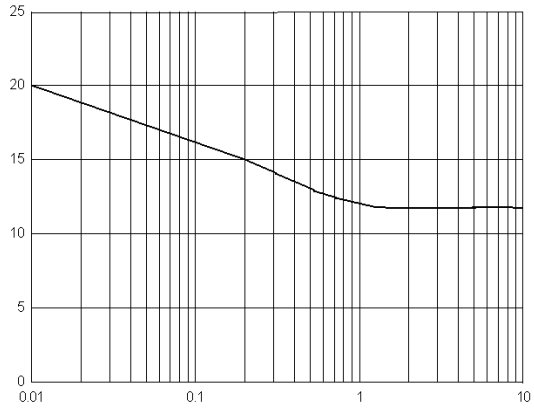
I_{TSM} - tp



通态浪涌电流 I_{TSM}(A)

脉冲宽度 tp(ms)

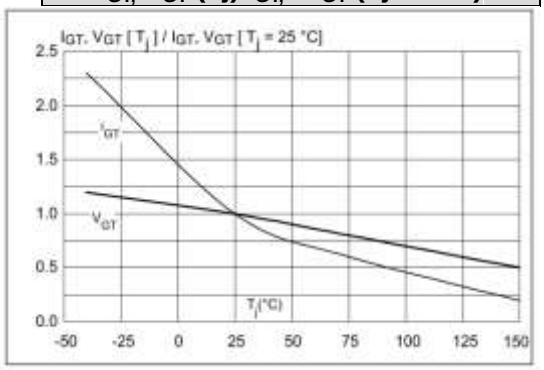
$I_{T(RMS)}$- ts



通态方均根电流 $I_{T(RMS)}$ (A)

冲击持续时间 ts(s)

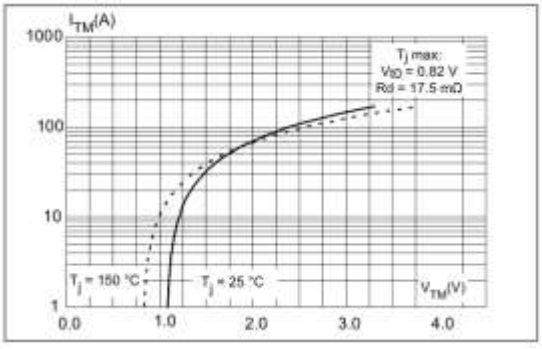
I_{GT}, V_{GT} (Tj)/I_{GT}, V_{GT} (Tj =25℃)



比值 I_{GT}(Tj)/I_{GT}(25℃)

结温 Tj(℃)

V_{TM} - I_T



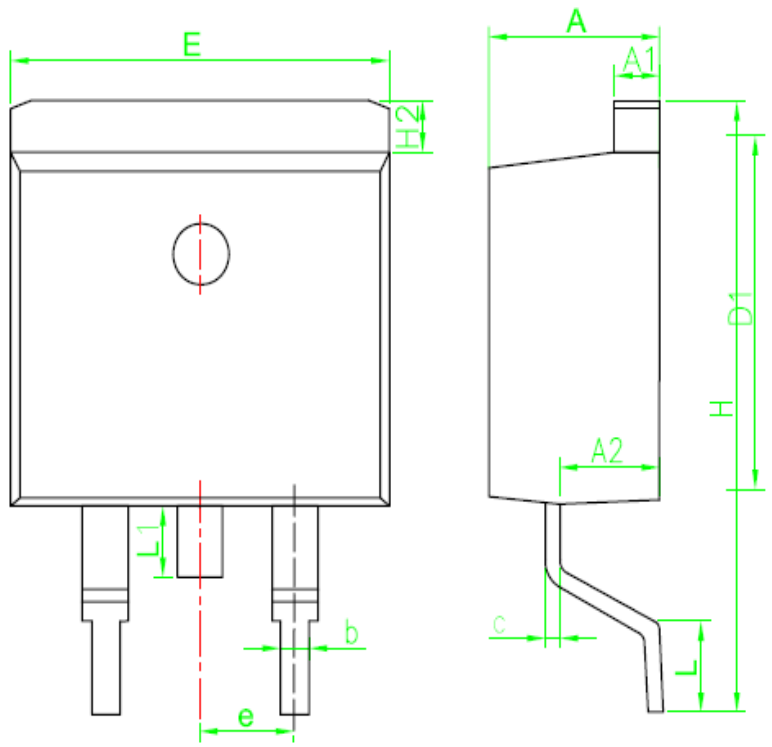
电流 I_T(A)

通态压降 V_{TM}(V)

外形尺寸 PACKAGE MECHANICAL DATA

TO-263

单位 Unit ： mm



SYMBOL	MM	
	MIN	MAX
A	4.30	4.80
A1	1.12	1.42
A2	2.54	2.84
b	0.67	1.00
c	0.29	0.52
D1	8.40	9.00
E	9.80	10.46
e	2.54BSC	
H	14.00	16.00
H2	1.12	1.45
L	1.50	3.10
L1	1.45	1.70

注意事项

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
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