



CD1635S1A

主要参数 MAIN CHARACTERISTICS

$I_{T(AV)}$	16A
V_{DRM}/V_{RRM}	1600V
I_{GT}	35mA

用途

- 半交流开关
- 相位控制

APPLICATIONS

- Half AC switching
- Phase control

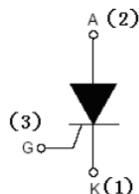
产品特性

- 玻璃钝化芯片, 高可靠性和一致性
- 环保 RoHS 产品

FEATURES

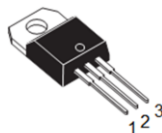
- Glass-passivated mesa chip for reliability and uniform
- RoHS products

封装 Package

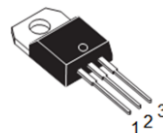


序号 Pin	引线名称 Description
1	阴极 K
2	阳极 A
3	门极 G

T0-220S
Insulated



T0-220S-B
Non-Insulated



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		
CD1635S1A-CB-B	CD1635S1A-CB-BR	N/A	N/A	CD1635S1A	TO-220S
CD1635S1A-CD-B	CD1635S1A-CD-BR	N/A	N/A	CD1635S1A	TO-220S-B



绝对最大额定值ABSOLUTE RATINGS($T_C=25^{\circ}\text{C}$)

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	$V_{\text{DRM}}/$ V_{RRM}		1600	V
通态方均根电流 Average on-state current	$I_{\text{T(AV)}}$	half sine wave	16	A
均方均根电流 RMS On-state current	$I_{\text{T(RMS)}}$	all conduction angles	25	A
非重复浪涌峰值通态电流 Non- repetitive surge peak on-state current	I_{TSM}	full sine wave, $t=10\text{ms}$	200	A
	I^2t	$t=10\text{ms}$	200	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	di/dt	$I_G=2\times I_{\text{GT}}$	50	$\text{A}/\mu\text{s}$
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	$P_{\text{G(AV)}}$		2.0	W
存储温度 Storage temperature	T_{stg}		-40~150	$^{\circ}\text{C}$
操作结温 Operation junction temperature	T_{VJ}		125	$^{\circ}\text{C}$

**电特性 ELECTRICAL CHARACTERISTIC ($T_c=25^\circ\text{C}$)**

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	$I_{\text{DRM}}/$ I_{RRM}	$V_{\text{DM}}=V_{\text{DRM}}, V_{\text{RM}}=V_{\text{RRM}}, T_j=125^\circ\text{C}$, gate open	-	-	4	mA
峰值通态电压 Peak on-state voltage	V_{TM}	$I_{\text{TM}}=40\text{A}$	-	-	1.6	V
门极触发电流 Gate trigger current	I_{GT}	$V_{\text{DM}}=12\text{V}, R_L=100\ \Omega$	-	-	35	mA
门极触发电压 Gate trigger voltage	V_{GT}	$V_{\text{DM}}=12\text{V}, R_L=100\ \Omega$	-	0.8	1.5	V
维持电流 Holding current	I_{H}	$I_{\text{T}}=0.1\text{A}$	-	-	90	mA
擎住电流 Latching current	I_{L}	$V_{\text{DM}}=12\text{V}, I_{\text{GT}}=0.1\text{A}$	-	-	160	mA
断态临界电压上升率 Rise of off- state voltage	d_v/d_t	$V_{\text{DM}}=67\% V_{\text{DRM(MAX)}}$, $T_j=125^\circ\text{C}$, gate open	1000	-	-	V/ μs

热特性 THERMAL CHARACTERISTIC

项目 Parameter	封装 Package	最小 Min	典型 Typ	最大 Max	单位 Unit
结到管壳的热阻 Thermal resistance junction to case	TO-220S(INS)			2.2	$^\circ\text{C}/\text{W}$
	TO-220S-B(Non-Ins)			1.1	$^\circ\text{C}/\text{W}$

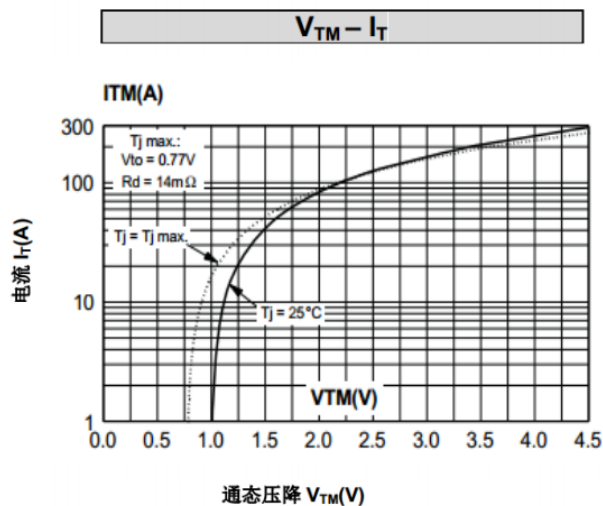
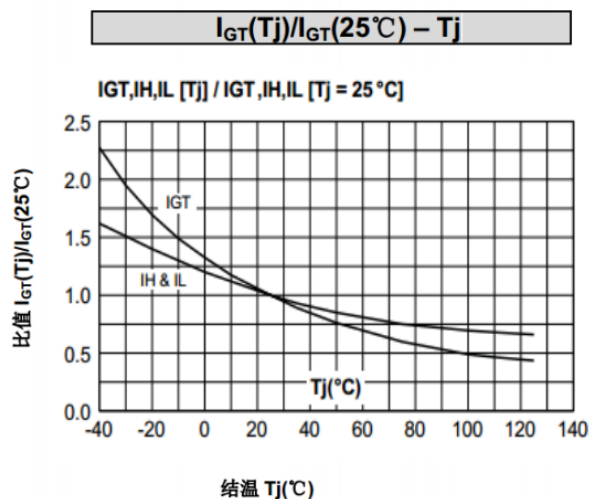
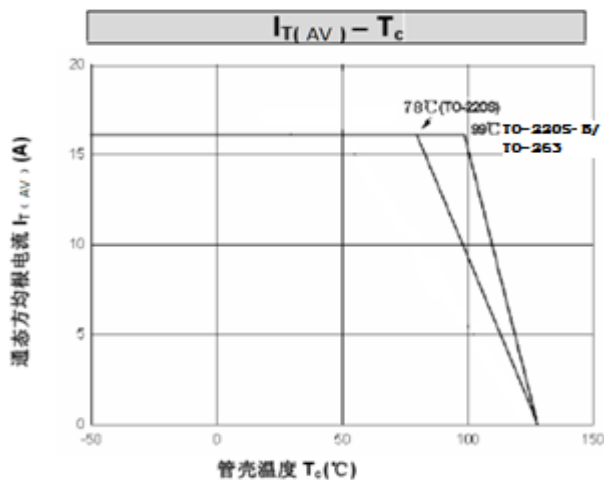
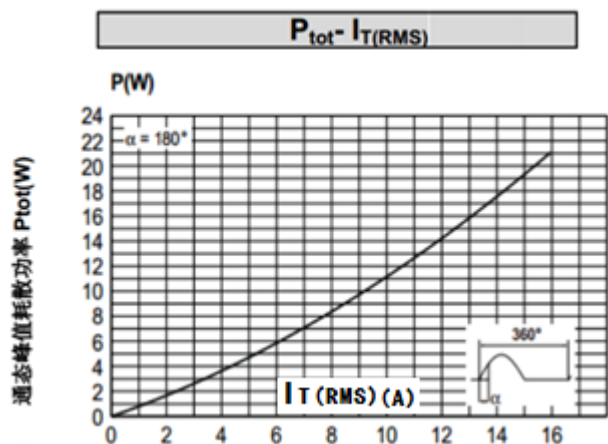
电绝缘特性 ELECTRICAL ISOLATION

项目 Parameter	符号 Symbol	条件 Condition	数值 Value	单位 Unit
绝缘电压 Isolation voltage	VISOL	1 minute, leads to mounting tab TO-220S	2000	V





特征曲线ELECTRICAL CHARACTERISTICS (curves)

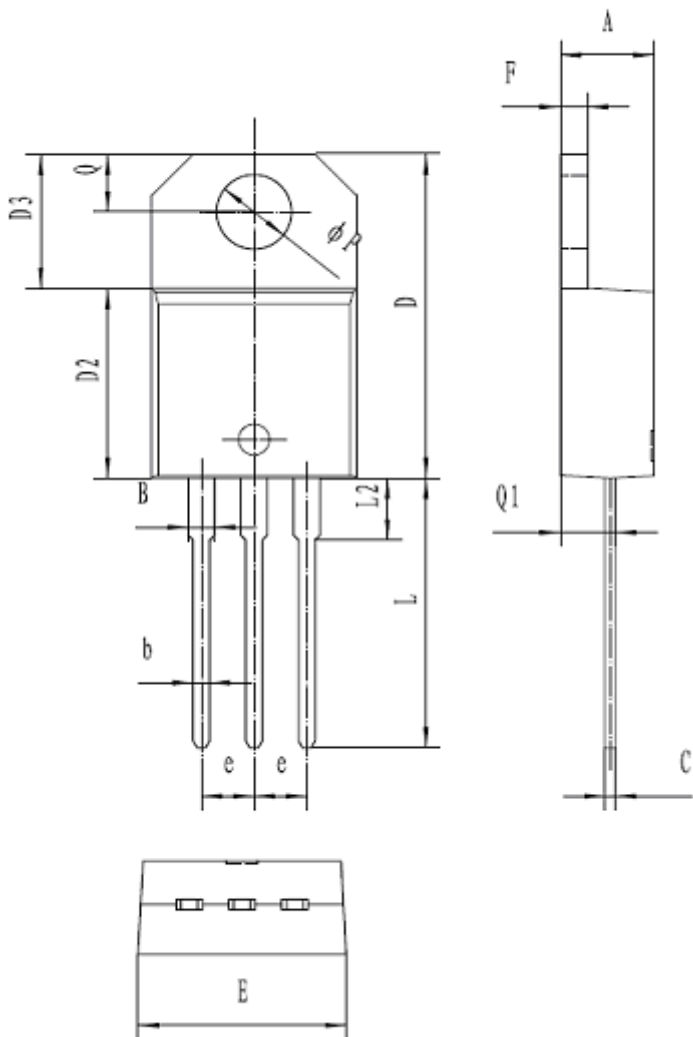




外形尺寸PACKAGE MECHANICAL DATA

TO-220S(TO-220S-B)

单位 Unit : mm



符号 symbol	MIN	MAX
A	4.40	4.60
B	1.14	1.70
b	0.61	0.88
C	0.47	0.70
D	15.20	15.90
D2	8.60	9.70
D3	6.20	6.60
E	10.00	10.40
e	2.40	2.70
F	1.23	1.32
L	13.00	14.00
L2	typ. 3.75	
Q	2.65	2.95
Q1	2.89	3.42
P	3.72	3.85



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