



CD2535H1-长城

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	40A
V_{DRM}/V_{RRM}	1000V
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
- 低通态电流和高浪涌电流能力
- 环保 RoHS 产品

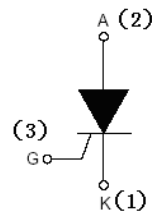
FEATURES

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

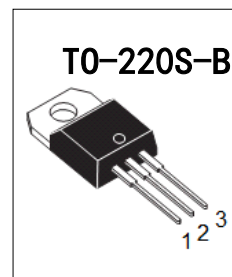
订货信息 ORDER MESSAGE

订 货 型 号 Order codes				印 记 Marking	封 装 Package
有卤-条管	无卤-条管	有卤-编带	无卤-编带		
Halogen-Tube	halogen-Free-Tube	Halogen-Reel	Halogen-Free-Reel		
CD2535H1-CD-B	CD2535H1 -CD-BR	N/A	N/A	CD2535H1	TO-220S-B

封装 Package



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



Non-insulated

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

PARAMETER	SYMBOL	TEST CONDITIONS		VALUES	UNITS
Maximum average on-state current	I _{T(AV)}	T _C = 93 °C, 180° conduction half sine wave		25	A
Maximum RMS on-state current	I _{RMS}			40	
Maximum peak, one-cycle non-repetitive surge current	I _{TSM}	10 ms sine pulse, rated V _{RRM} applied		300	
		10 ms sine pulse, no voltage reapplied		350	
Maximum I ² t for fusing	I ² t	10 ms sine pulse, rated V _{RRM} applied		450	A ² s
		10 ms sine pulse, no voltage reapplied		630	
Maximum I ² √t for fusing	I ² √t	t = 0.1 to 10 ms, no voltage reapplied		6300	A ² /√s
Maximum on-state voltage	V _{TM}	80 A, T _J = 25 °C		1.6	V
Low level value of on-state slope resistance	r _t	T _J = 140 °C		11.4	mΩ
Low level value of threshold voltage	V _{T(TO)}			0.96	V
Maximum reverse and direct leakage current	I _{RRM} /I _{DRM}	T _J = 25 °C	V _R = Rated V _{RRM} /V _{DRM}	0.5	mA
		T _J = 140 °C		12	
Holding current	I _H	Anode supply = 6 V, resistive load, initial I _T = 1 A, T _J = 25 °C		100	
Maximum latching current	I _L	Anode supply = 6 V, resistive load, T _J = 25 °C		200	
Maximum rate of rise of off-state voltage	dV/dt	T _J = T _J max., linear to 80 °C, V _{DRM} = R _g - k = Open		500	V/μs
Maximum rate of rise of turned-on current	dI/dt			150	A/μs
Storage temperature	T _{stg}			-40~150	°C
Operation junction temperature	T _J			-40~150	°C
Electro static discharge	ESD	人体模式		3000	V
Moisture sensitivity level	MSL	MSL=3			



**触发特性 TRIFFERING CHARACTERISTICS ($T_C=25^{\circ}\text{C}$ unless otherwise stated)**

PARAMETER	SYMBOL	TEST CONDITIONS	VALUES	UNIT
Maximum peak gate power	P_{GM}		8.0	W
Maximum average gate power	$P_{G(AV)}$		2.0	
Maximum peak positive gate current	$+I_{GM}$		1.5	A
Maximum peak negative gate voltage	$-V_{GM}$		10	V
Maximum required DC gate current to trigger	I_{GT}	Anode supply = 6 V, resistive load, $T_J = 25^{\circ}\text{C}$	35	mA
Maximum required DC gate voltage to trigger	V_{GT}	Anode supply = 6 V, resistive load, $T_J = 25^{\circ}\text{C}$	1.3	V
Maximum DC gate voltage not to trigger	V_{GD}	$T_J = 140^{\circ}\text{C}$, $V_{DRM} = \text{Rated value}$	0.2	
Maximum DC gate current not to trigger	I_{GD}		1.5	mA

热特性 THERMAL CHARACTERISTIC

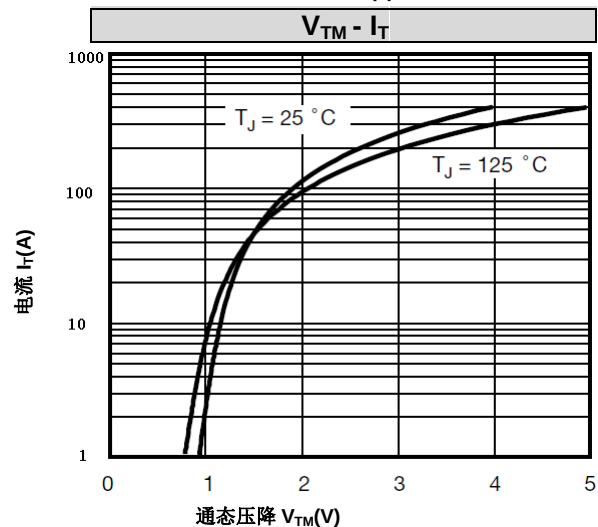
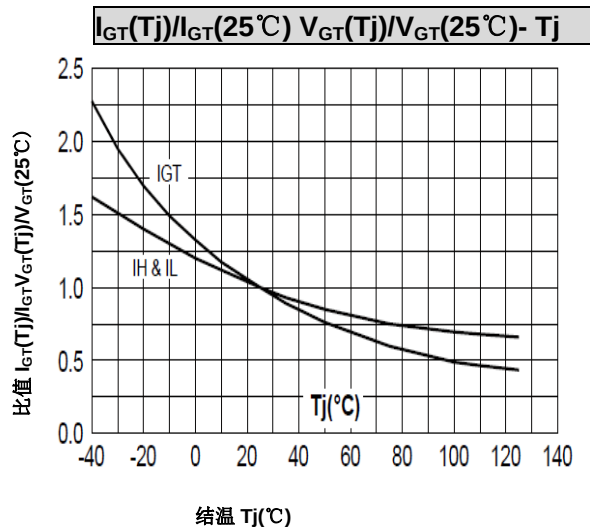
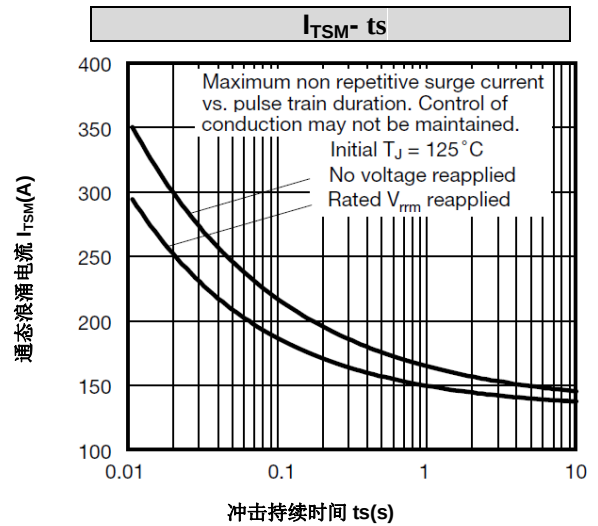
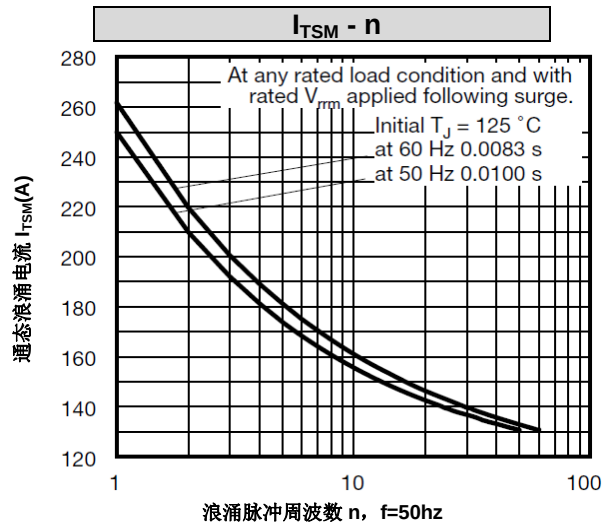
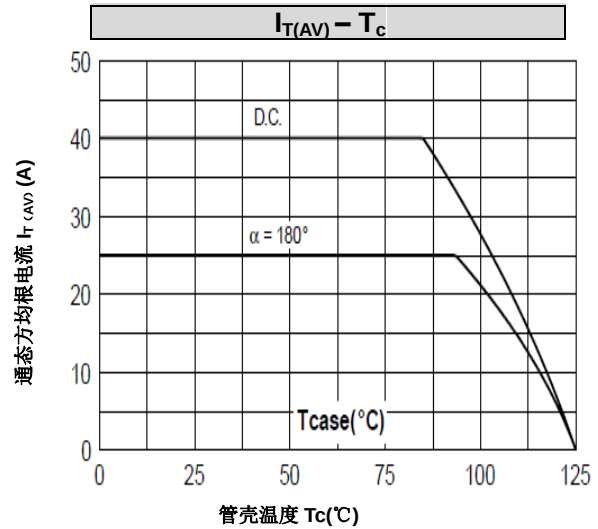
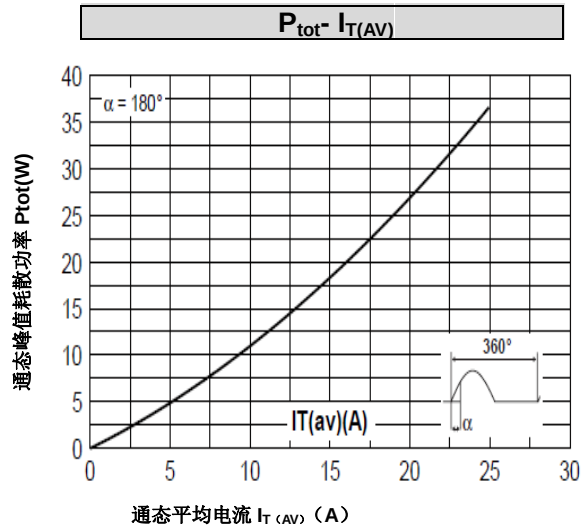
项 目 Parameter	符 号 Symbol	值 value	单位 Unit
结到管壳的热阻 Thermal resistance junction to case	$R_{th(j-c)}$	0.8max	$^{\circ}\text{C/W}$

丝印信息 IMPRINT INFORMATION

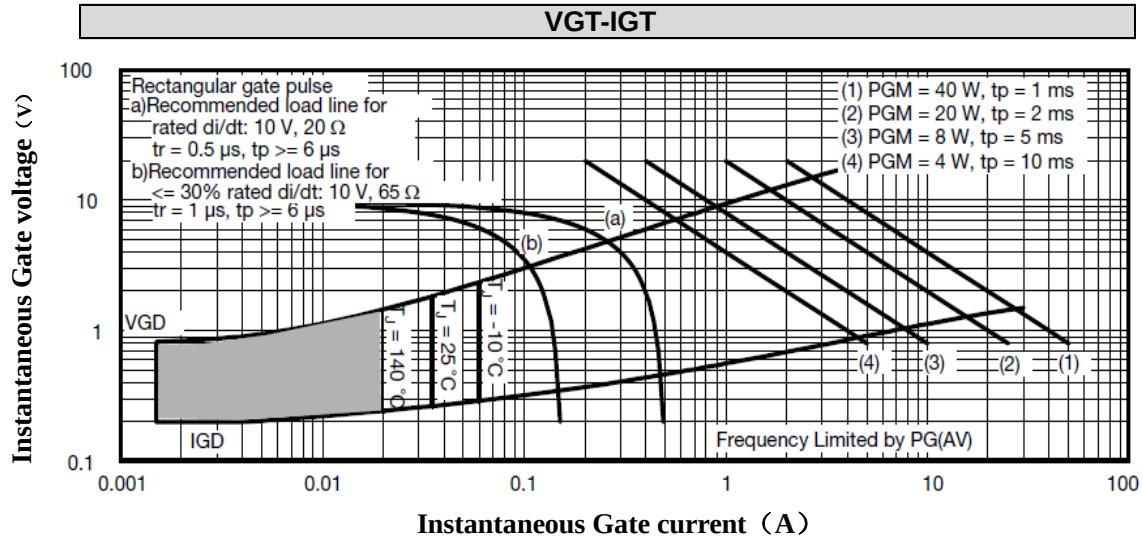
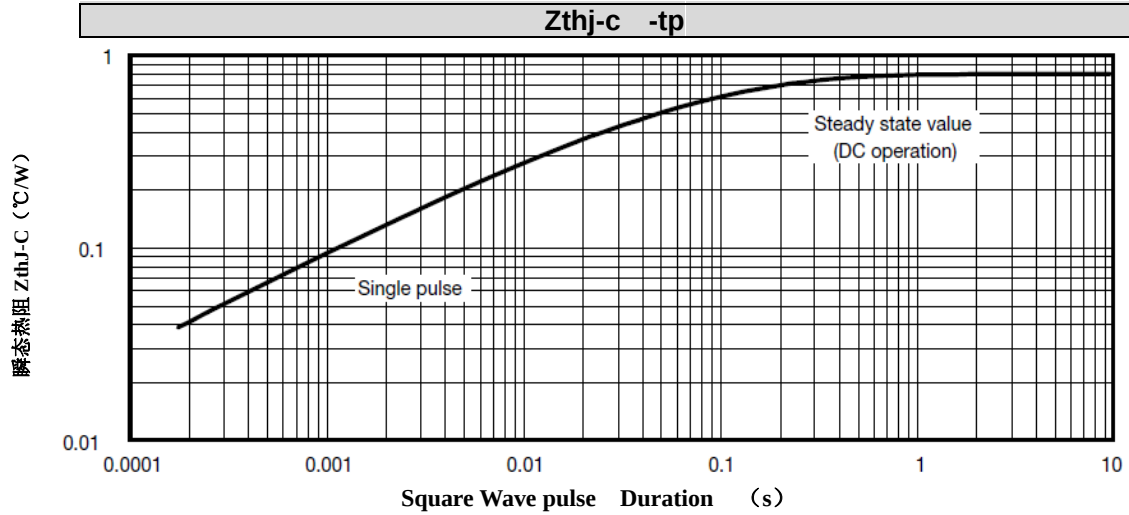
丝印图片 Imprint Picture	丝印内容 Imprint Content	丝印含义 Imprint Meaning
		华微电子LOGO
	B	TO-220S-B封装
	CD2535H1	产品印记
	GP	芯片和封装代码
	A1CP	流水号



特征曲线 ELECTRICAL CHARACTERISTICS (curves)



特征曲线 ELECTRICAL CHARACTERISTICS (curves)

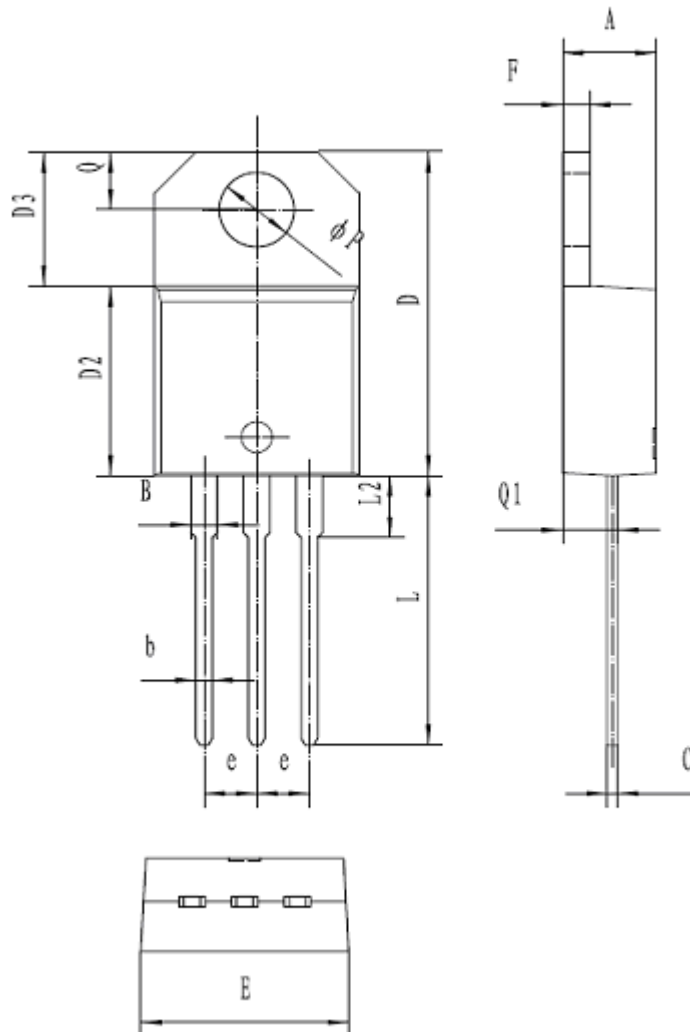




外形尺寸 PACKAGE MECHANICAL DATA

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