



主要参数 MAIN CHARACTERISTICS

I_{FSM}	100A
P_{PPM}	600W

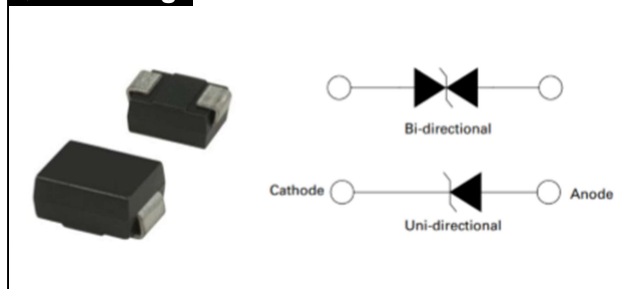
用途

- 通讯领域
- 计算机领域
- 工业和消费电子设备

APPLICATIONS

- Telecom
- Computer
- Industrial and Consumer Electronic Equipment

封装 Package



产品特性

- 600W 峰值脉冲功率能力
- 快速响应时间
- 低电阻
- 出色的钳位能力

FEATURES

- 600W peak pulse power capability with a 10/1000 μs waveform, repetitive rate (duty cycle): 0.01 %
- Very fast response time
- Low incremental surge resistance
- Excellent clamping capability

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

项 目 Parameter	符 号 Symbol	数 值 Value	单 位 Unit
峰值正向浪涌电流 Peak forward surge current, 8.3ms single half sine wave	I_{FSM}	100	A
最大瞬时正向电压 Maximum instantaneous forward voltage at 50A for unidirectional	V_F	5.0	V
额定脉冲功率 Peak pulse power dissipation at 10/1000 μs waveform	P_{PPM}	600	W
稳态功耗 Steady state power dissipation at $T_L=75^\circ C$	$P_{M(AV)}$	5.0	W
最高结温 Junction Temperature	T_j	150	$^\circ C$
贮存温度 Storage Temperature	T_{stg}	-55~+150	$^\circ C$

注: pulse 电流宽度为小于 5ms 的非重复单脉冲。在 8.3ms 单半正弦波或等效方波上测量, 仅适用于单向装置, 最大占空比=最多 4 个脉冲每分钟。

Measured on 8.3ms single half sine wave or equivalent square wave for unidirectional device only, duty cycle=4 per minute maximum





电特性 ELECTRICAL CHARACTERISTIC

Part Number		V_R	$V_{BR}@I_T$		$I_R@V_R$	I_T	$V_C@I_{PP}$	I_{PP}
Uni-Polar	Bi-Polar	V	Min(V)	Max(V)	μA	mA	V	A
SMBJ5.0A	SMBJ5.0CA	5.0	6.7	7.3	800	10	9.2	65.4
SMBJ6.0A	SMBJ6.0CA	6.0	6.87	7.47	800	10	10.2	58.4
SMBJ6.5A	SMBJ6.5CA	6.5	7.25	7.95	500	10	11.1	54.5
SMBJ7.0A	SMBJ7.0CA	7.0	7.8	8.60	200	10	12.0	50.8
SMBJ7.5A	SMBJ7.5CA	7.5	8.3	9.2	100	1.0	12.7	47.2

热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到引线的热阻 Typical thermal resistance junction to lead	$R_{\theta JL}$	-	20	$^{\circ}C/W$
结到环境的热阻 Typical thermal resistance junction to ambient	$R_{\theta JA}$		100	

特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Figure 1.V- I curve characteristics , Uni-directional

Figure 1.V- I curve characteristics , Bi-directional

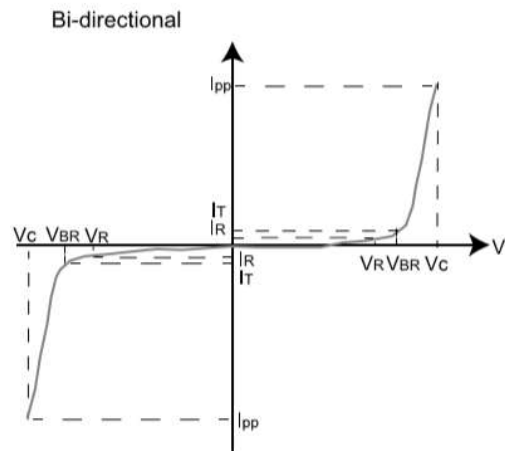
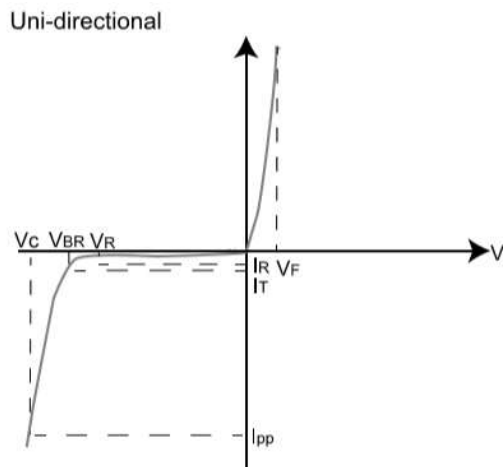


Figure.3: Pulse waveform

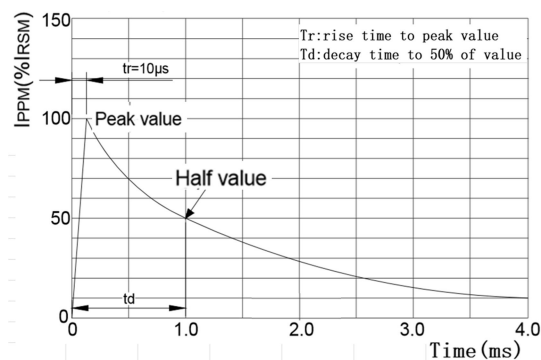
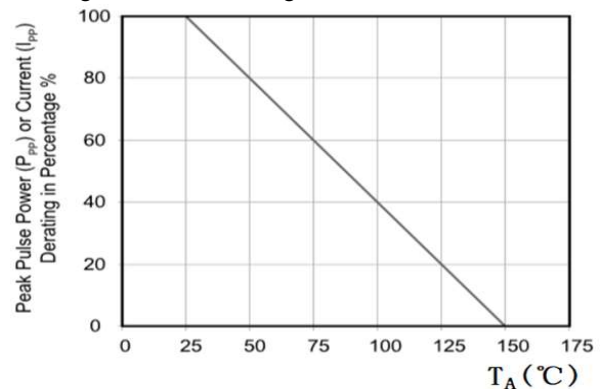


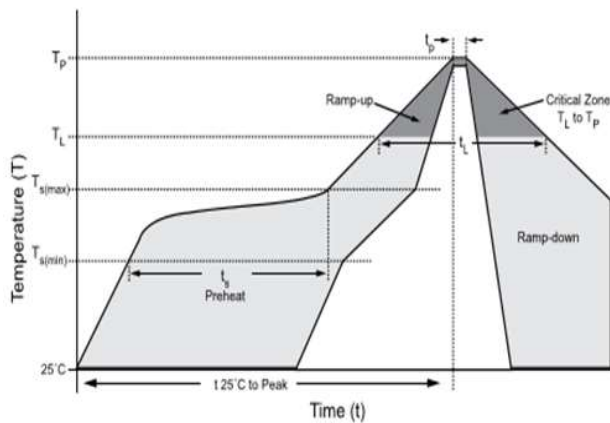
Figure.3: Pulse Derating curve





SOLDERING PARAMETERS :

Reflow Condition		Lead-free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150°C
	- Temperature Max ($T_{s(max)}$)	200°C
	- Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Time (min to max) (t_s)	60 – 150 seconds
Peak Temperature (T_p)		260 $^{+0/-5}$ °C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		280°C

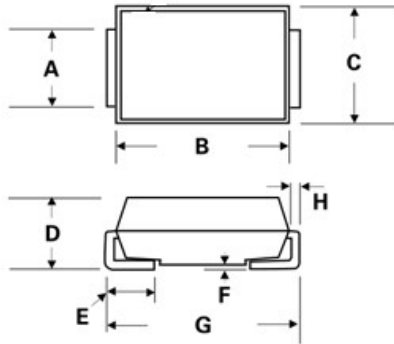




外形尺寸 PACKAGE MECHANICAL DATA

SMB

单位 Unit : mm



Dimensions	Min	Max
A	1.94	2.2
B	4.05	4.56
C	3.35	3.95
D	2.12	2.45
E	0.78	1.52
F		0.203
G	5.15	5.6
H	0.15	0.3





注意事项

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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知。

联系方式

吉林华微电子股份有限公司

公司地址：吉林省吉林市深圳街 99 号

邮编：132013

总机：86-432-64678411

传真：86-432-64665812

网址：www.hwdz.com.cn

销售业务部

地址：吉林省吉林市深圳街 99 号

邮编：132013

电话：86-432-64675588

64675688

64678411-3098/3099

传真：86-432-64671533

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4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this. specification sheet and is subject to

CONTACT

JILIN SINO-MICROELECTRONICS CO., LTD.

ADD: No.99 Shenzhen Street, Jilin City, Jilin Province, China.

Post Code: 132013

Tel: 86-432-64678411

Fax: 86-432-64665812

Web Site: www.hwdz.com.cn

MARKET DEPARTMENT

ADD: No.99 Shenzhen Street, Jilin City, Jilin Province, China.

Post Code: 132013

Tel: 86-432-64675588

64675688

64678411-3098/3099

Fax: 86-432-64671533

