重庆平伟实业股份有限公司
CHONGQING PINGWEI ENTERPRISE CO.,LTD

承　认　书

SPECIFICATION FOR APPROVAL

客户名称：	Qisda Corporation.		
客户料号：	8C.04148.J1H		
产品名称：	DIODE		
产品型号：	1N4148W		
产品商标：	中性		
环保要求：	ROHS2.0 REACH HF		
版　　次：	V1.0		
备　　注：			
拟制：		日期：	2020年02月19日
审核：		日期：	2020年02月19日
批准：		日期：	2020年02月19日
客户确认：			

地　址：重庆市梁平县梁平工业园
电　话：86-23-85709656
传　真：86-23-85709677
e-mail：pwkefu@perfectway.cn
http://www.perfectway.cn

目录

1. 文件变更履历表……2
2. 产品规格书……3
3. 印字和包装信息……5
4. 耐温说明……8

重庆平伟实业股份有限公司
ChongQing PingWei Enterprise Co.,Ltd

Customer PN: XXXXXXXX
Quantity: 3000 PCS
Supplier PN: 1N4148W
Lot No.: XXXXXXXX
H.No.: XXXXXXXX





文件变更履历表

文件名称：佳世達 1N4148W 承认书

文件编号：

文件页次：共 8 页

版本号：1.0

拟制：　日期：2020-02-19

审核：　日期：2020-02-19

批准：　日期：2020-02-19

更改记录

版本号	更改部门	更改人	审核人	批准人	生效日期	变更原因
1.0	工程部	钟晓明	王强	王兴龙	2020-02-19	初版发行

Small Signal Switching Diodes 1N4148W

0.15AMP.SURFACE MOUNT FAST SWITCHING DIODE

FEATURE

.Fast Switching Speed
.Low Forward Voltage
.Fast Reverse Recovery
.Low Capacitance
.For General Purpose Switching Applications
.MSL 1

MECHANICAL DATA

.Case: SOD-123FL Molded Plastic
.Case Material:UL Flammability Rating Classification 94-0
.Terminals:Plated leads solderable Per MIL-STD-750 Method 2026
.Polarity:Cathode Band
.Type Code: 1N4148W:W1
.Weight: 0.006 ounces 0.02 grams



SOD-123FL

MAXIMUM RATINGS (T_C=25℃ unless otherwise noted)

Parameter	Symbol	1N4148W	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
RMS Reverse Voltage	V_{RMS}	53	V
DC Blocking Voltage	V_{DC}	75	V
Average Rectified Output Current	$I_{F(AV)}$	150	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0s	I_{FSM}	1	A

ELECTRICAL CHARACTERISTICS (T_C=25℃ unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Units
Forward Voltage	V_{FM}	I_F=10mA	----	----	1.0	V
		I_F=100mA	----	----	1.2	
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R = 1.0μA	75	----	----	V
Peak Reverse Current	I_{RM}	V_R=20V	----	----	25	nA
		V_R=75V	----	----	5	uA
Total Capacitance	C_T	VR = 0, f = 1.0MHz	----	----	4.0	pF
Reverse Recovery Time	trr	I_F=10mA，V_R=6V R_L=100Ω，I_{RR}=1mA	----	----	4.0	ns

THERMAL CHARACTERISTICS(T_C=25℃ unless otherwise noted)

Parameter	Symbol	1N4148W	Units
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	315	℃/W
Power Dissipation	P_D	400	mW
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55 to +150	℃

RATING AND CHARACTERISTIC CURVES

FIG.1- Power Derating Curve

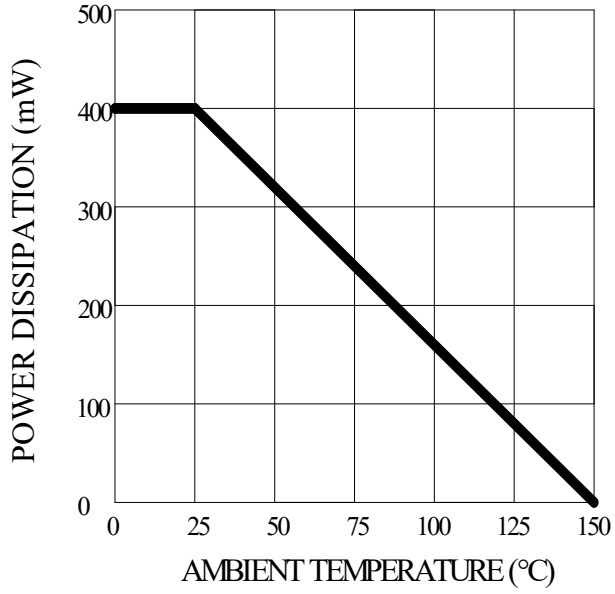


FIG.2- Typical Forward Characterist

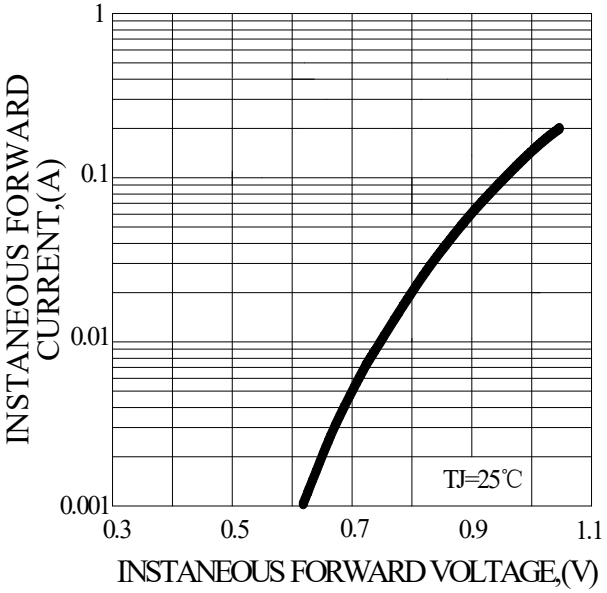


FIG.3- Total Capacitance vs. Reverse Voltage

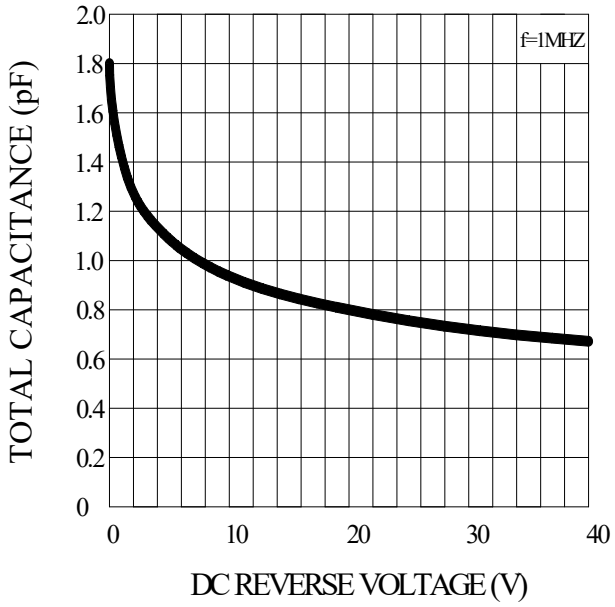
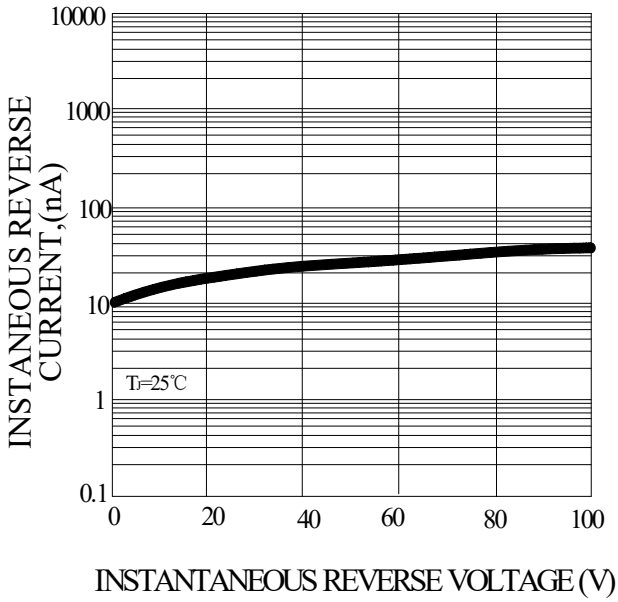
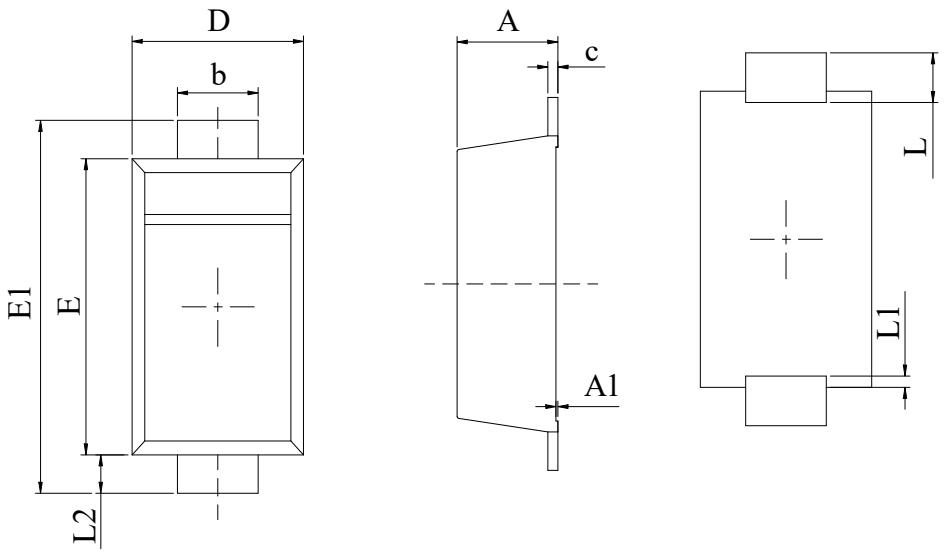


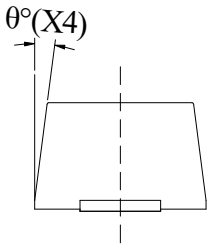
FIG.4-Typical Reverse Characteristics



PACKAGE OUTLINE DIMENSIONS

SOD-123FL

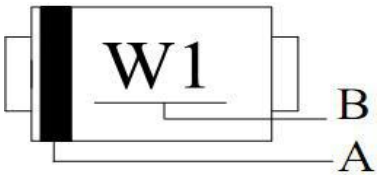




SOD-123FL			
	MIN	NOM	MAX
A	0.8	1.0	1.15
A1	0.005	0.02	0.025
b	0.75	0.8	0.85
c	0.07	0.1	0.18
D	1.60	1.70	1.90
E	2.6	2.7	2.8
E1	3.4	3.5	3.6
L	0.4	0.5	0.65
L1	0	0.1	0.15
L2	0.35	0.4	0.5
θ	0°	5°	10°
UNIT:mm			

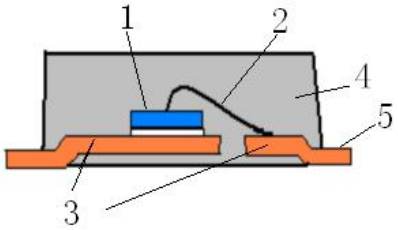
Marking structure and packaging illustration

1、Marking



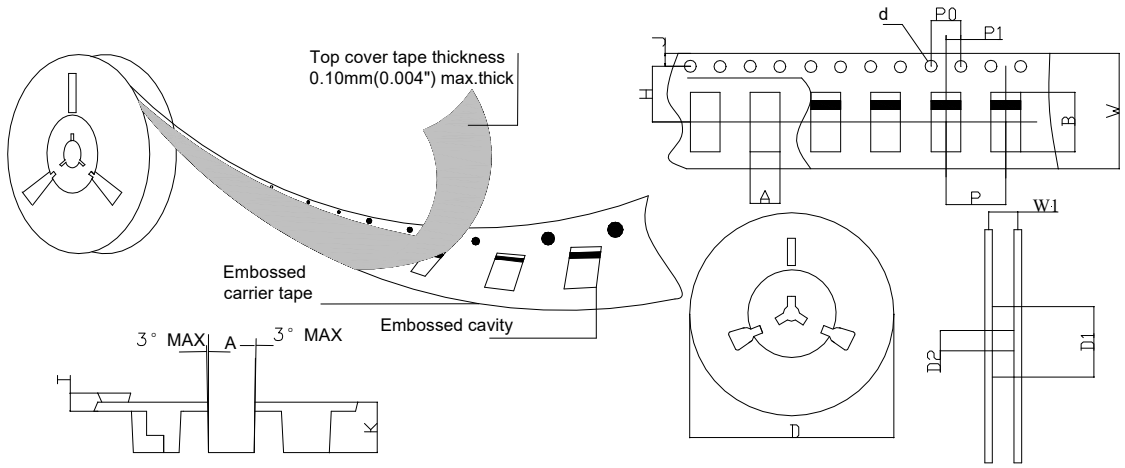
SYMBOL	Explanation
A	Color Band Denotes Cathode
B	Product Name

2、Structure



SYMBOL	Explanation
1	Dice
2	Wire Bonding(Cu)
3	Lead Frame
4	Epoxy Compound
5	Plating

3、Packaging



SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYMBOL	SOD-123FL	ITEM	SYMBOL	SOD-123FL
Carrier width	A	2.1(0.083)Max	Carrier depth	K	1.60(0.063)Typ
Carrier length	B	4.0(0.157)Max	Punch hole pitch	P	4.00(0.157)Typ
Sprocket hole	d	ø1.55(0.061)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel outer diameter	D	177.8(7)Typ	Embossment center	P1	2.00(0.079)Typ
Reel inner diameter	D1	50.0(1.969)Min	Overall tape thickness	T	0.25(0.098)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	8.15(0.321)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	10.5(0.413)Min
Punch hole position	H	3.50(0.138)Typ			

零件耐溫说明

1、SMT制程的條件:所有SMD貼片元件及錫膏制程過迴焊爐插件(如排插)均符合：

1.1紅膠制程:120℃≦T≦150℃　時間大於120sec

1.2錫膏制程:　245℃/60sec　　180℃/120sec　;MAX 245℃

1.3AI/RI插件符合：紅膠制程:120℃≦T≦150℃　時間大於120sec

2、Wave Soldering制程條件：

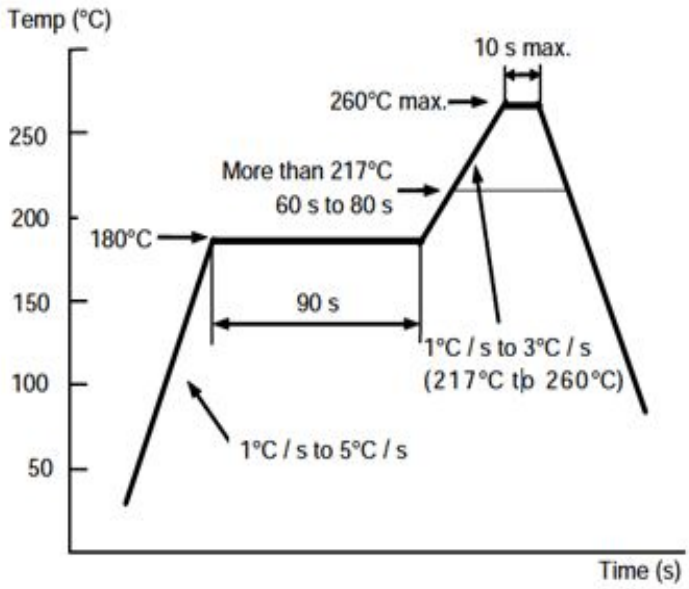
2.1最高溫度: 260+0/-5℃ 10sec

2.2零件溫升△T＜145℃(即:零件承受的瞬間溫差須小於145℃)

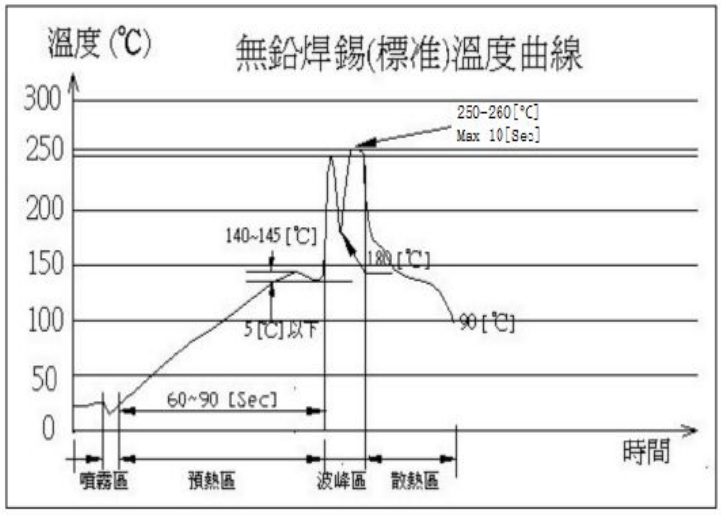
3、Soldering Iron制程條件:

3.1SMD貼片元件溫度: 260℃≦T≦320℃　時間 5sec

3.2手插元件溫度: 350℃≦T≦420℃　時間 5sec



Reflow Soldering Thermal Profile



Wave Soldering Thermal Profile

MSL Level:　Level 1　**(小于或等于30℃/85%RH，1年车间寿命)**
ESD Level:　Level 1C (HBM:1000V TO ＜2000V)