

# 自贡兴川光电有限公司

Zigong xingchuan photoelectric co., ltd

## 元器件样品承认书

样品名称	开关二极管			
规格型号	ES1D 200V, 1A, 35NS, PANJIT <sup>SMA</sup>			
物料编码	03.03.0003			
生产厂家	PANJIT			
样品数量	100PCS			
实验目的	新材料测试确认			
确认次数	首次确认			
部门	研发部	品质部	工程部	采购部
签字确认	刘伟 2019.6.28	陈攀	刘清	李志军
备注				
结论	可以使用			
批准	刘清		日期	2019.7.1

表格编号：




扫描全能王 创建

# 自贡兴川光电有限公司

Zigong xingchuan photoelectric co., ltd

## 样品测试报告

样品名称	开关二极管	使用产品	ZSCI500逆控一体机
样品规格	ES1D (PANJIT)	样品数量	100 pcs
送样单位	研发部	送样日期	2019年6月24日
测试地点	汇东股份513室	环境温湿度	24℃ 73%RH
物料说明	开关二极管ES1D, 200V, 1A, 35ns		
物料分类	<input type="checkbox"/> 五金类 <input checked="" type="checkbox"/> 电子类 <input type="checkbox"/> 包材类 <input type="checkbox"/> 塑料类 <input type="checkbox"/> 套件类 <input type="checkbox"/> 辅料类 <input type="checkbox"/> 其他		
检验内容			
尺寸	尺寸符合规格书要求, 详细测试数据: 4.9mm×2.6mm×2.2mm 检验员: 刘俊 日期 2019.6.28		
外观、颜色	管身为黑色, 管脚为银白色, 外观颜色符合规格书要求 检验员: 刘俊 日期 2019.6.28		
装配	安装牢固可靠, 无抢位, 上锡度良好 检验员: 刘俊 日期 2019.6.28		
性能	最大反向重复峰值电压: 200V; 最大正向电压VF (IF=1A): 0.735V 检验员: 刘俊 日期 2019.6.28		
材质	 检验员: 刘俊 日期 2019.6.28		
其他	符合ZSCI500样机设计要求 符合电阻规格书要求 检验员: 刘俊 日期 2019.6.28		
检验结果	<input checked="" type="checkbox"/> 合格 <input type="checkbox"/> 不合格 <input type="checkbox"/> 其他		
改善要求			
物料图片 (实物)			

表格编号:



扫描全能王 创建

# ES1A~ES1J

## SURFACE MOUNT SUPERFAST RECTIFIER

**VOLTAGE** 50 to 600 Volt **CURRENT** 1 Ampere

**SMA / DO-214AC**

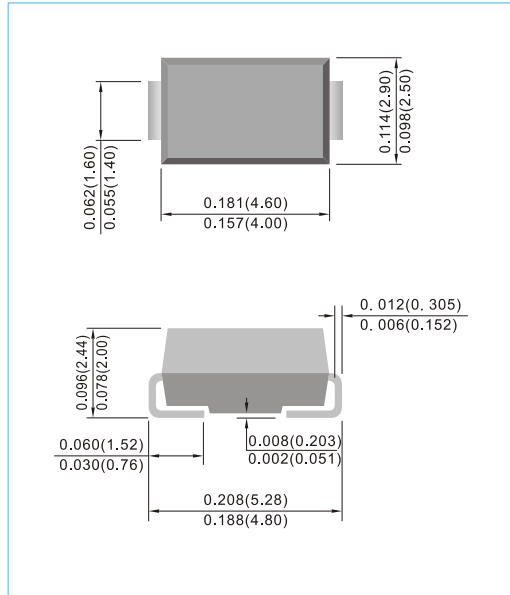
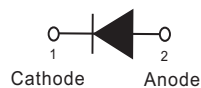
Unit : inch(mm)

### FEATURES

- For surface mounted applications in order to optimize board space
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0023 ounces, 0.0679 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	V
Maximum Average Forward Current at T <sub>L</sub> =120°C	I <sub>F(AV)</sub>	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30							A
Maximum Forward Voltage at 1A	V <sub>F</sub>	0.95				1.25		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C T <sub>J</sub> =100°C	I <sub>R</sub>	1 150							μA
Maximum Reverse Recovery Time (Note 1)	t <sub>rr</sub>	35							ns
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	7							pF
Typical Thermal Resistance (Note 3)	R <sub>θJL</sub>	35							°C / W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

#### NOTES:

- 1.Reverse Recovery Tset Conditions: $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$
- 2.Measured at 1.0MHz and applied reverse voltage of 4.0 volt
- 3.8.0mm<sup>2</sup>( 0.013mm thick ) land areas.

# ES1A~ES1J

## RATING AND CHARACTERISTIC CURVES

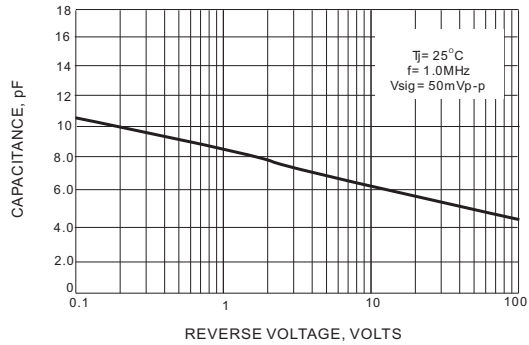


FIG.1 TYPICAL JUNCTION CAPACITANCE

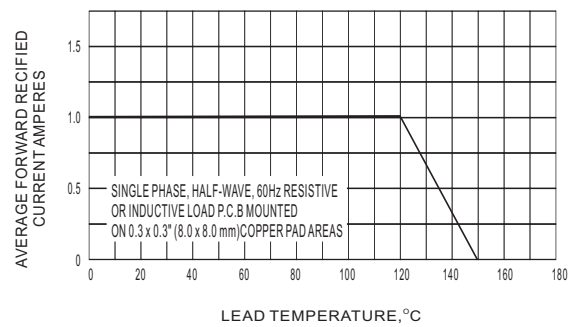


FIG.2 MAXIMUM AVERAGE FORWARD CURRENT DERATING

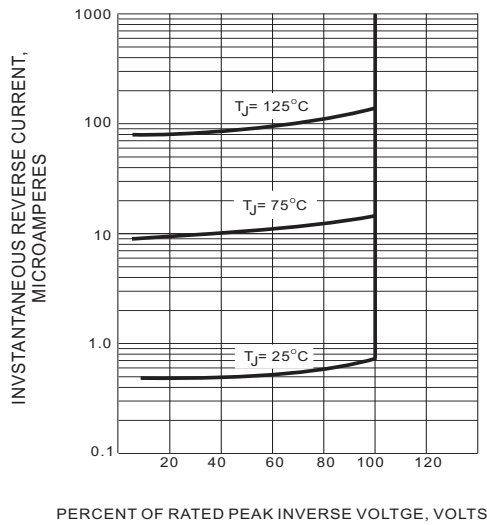


FIG.3 TYPICAL REVERSE CHARACTERISTICS

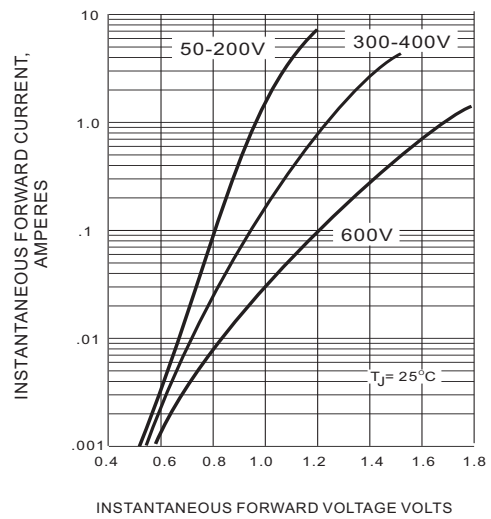


FIG.4 TYPICAL FORWARD CHARACTERISTICS

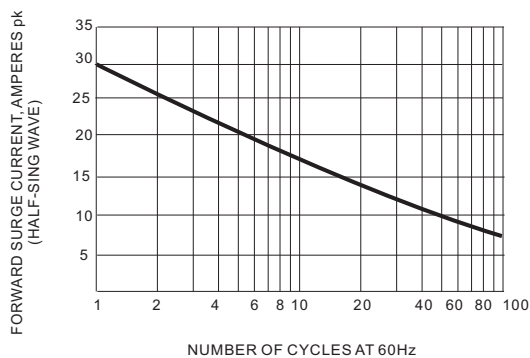


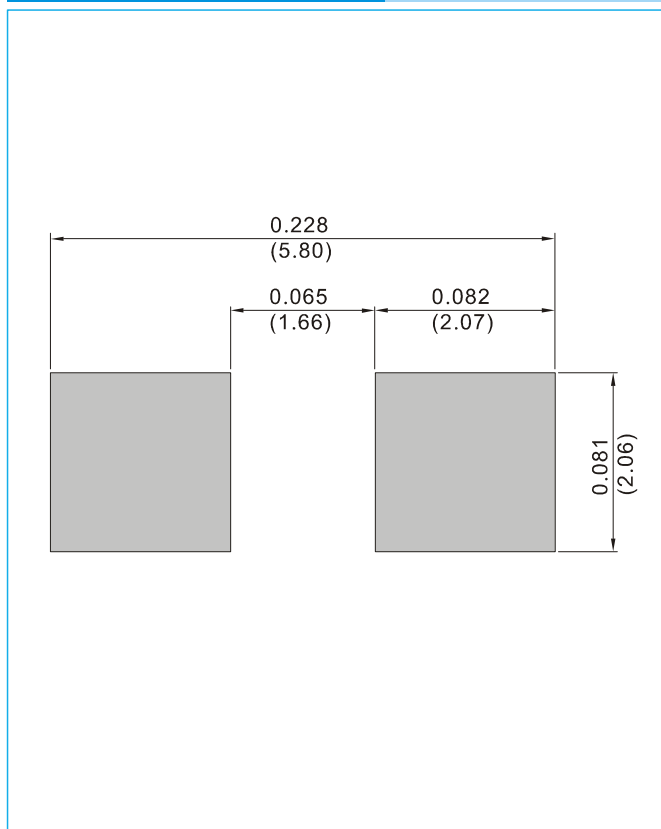
FIG.5 MAXIMUM NON-REPEITIVE SURGE CURRENT

# ES1A~ES1J

## MOUNTING PAD LAYOUT

SMA / DO-214AC

Unit : inch(mm)



## ORDER INFORMATION

- Packing information
  - T/R - 7.5K per 13" plastic Reel
  - T/R - 1.8K per 7" plastic Reel

## ES1A~ES1J

### Part No\_packing code\_Version

ES1A\_R1\_00001

ES1A\_R2\_00001

For example :

RB500V-40\_R2\_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



## ES1A~ES1J

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