



Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- x High Temp Soldering: 260qC for 10 Seconds At Terminals
- x Superfast Recovery Times For High Efficiency

Maximum Ratings

- x Operating Temperature: -50qC to +150qC
- x Storage Temperature: -50qC to +150qC
- x Maximum Thermal Resistance; 15qC/W Junction To Lead

Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
ES1D	ES1D	200V	140V	200V
ES1G	ES1G	400V	280V	400V
ES1J	ES1J	600V	420V	600V

Electrical Characteristics @ 25qC Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_a = 75qC$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage ES1D ES1G ES1J	V_F	1.0 V 1.30V 1.75V	$I_{FM} = 1.0A$; $T_J = 25qC^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5pA 100pA	$T_J = 25qC$ $T_J = 100qC$
Maximum Reverse Recovery Time	T_{rr}	50ns	$I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$
Typical Junction Capacitance	C_J	45pF	Measured at 1.0MHz, $V_R=4.0V$

*Pulse test: Pulse width 200 psec, Duty cycle 2%

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

1 Amp Ultra Fast Recovery Silicon Rectifier 50 to 1000 Volts

(SMA)

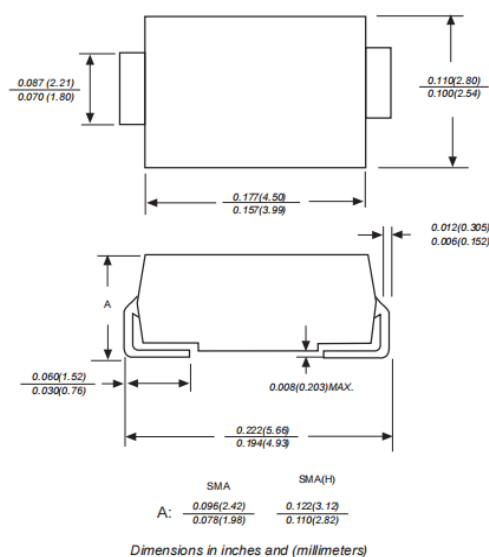
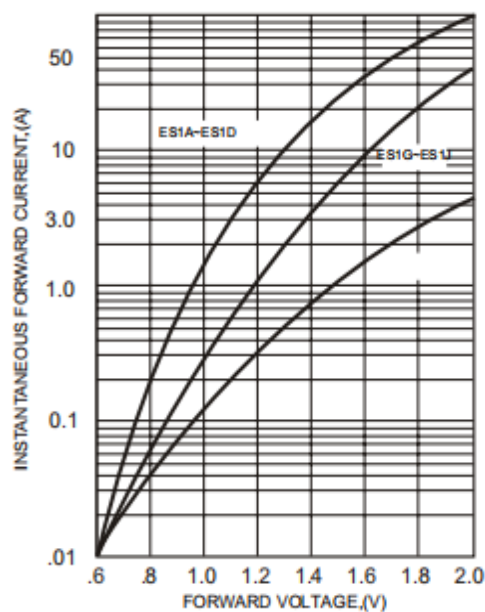




Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve

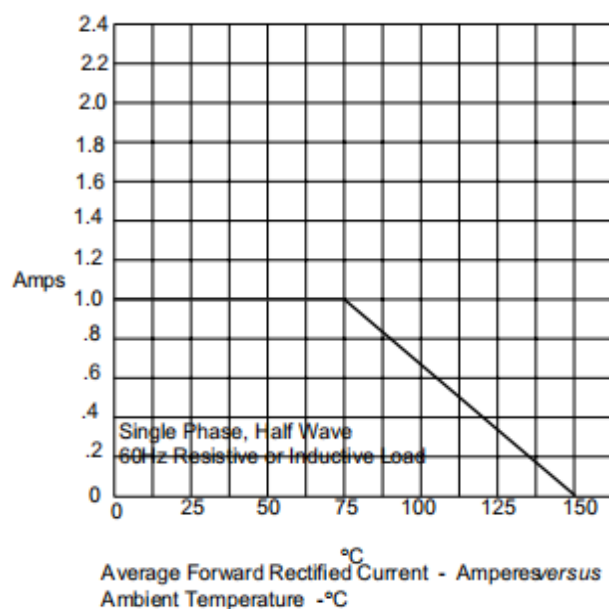
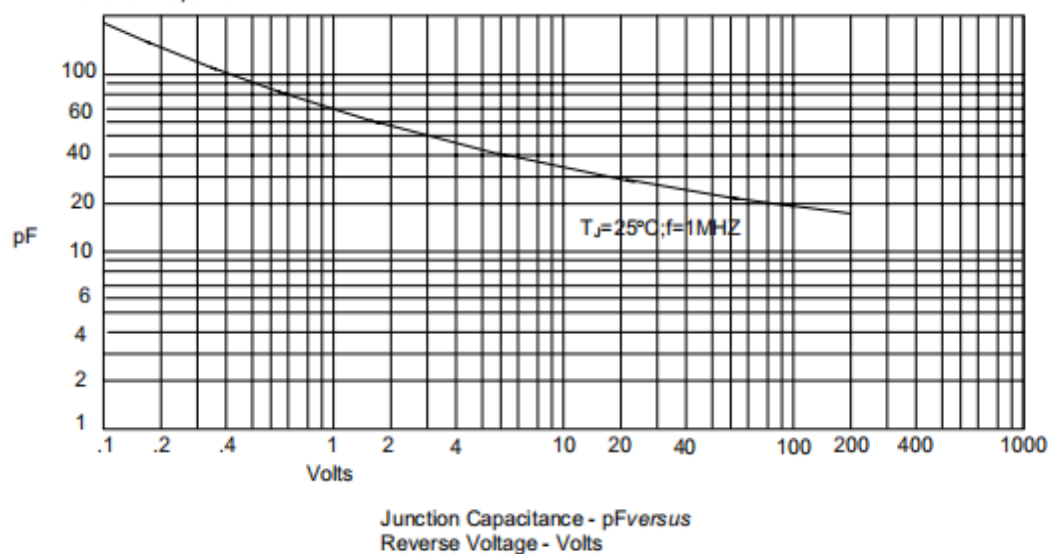


Figure 3
Junction Capacitance



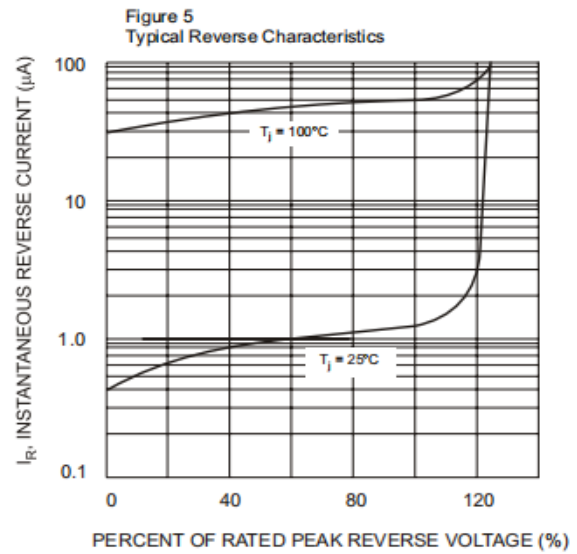
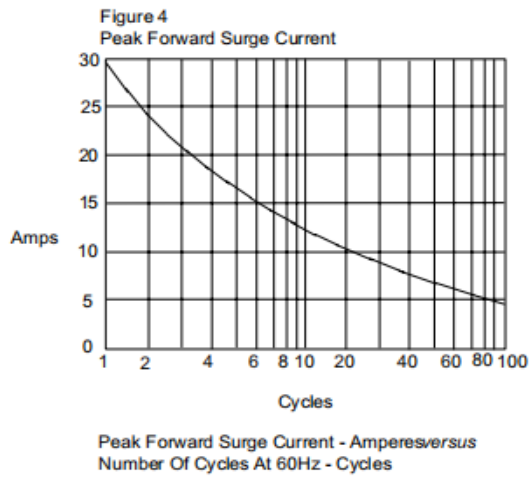
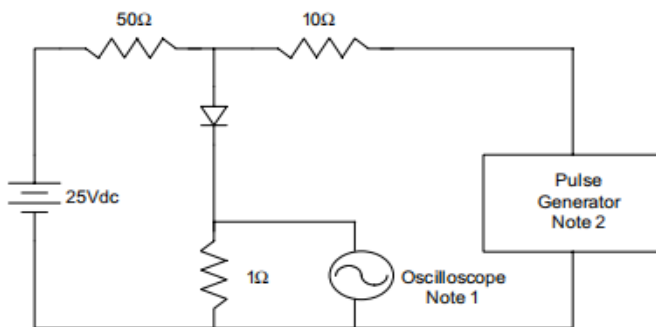
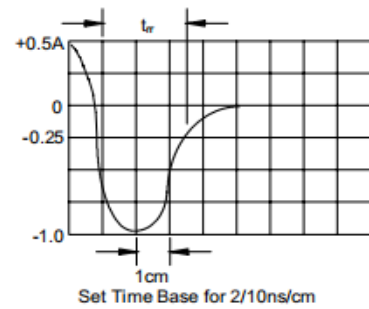


Figure 6
Reverse Recovery Time Characteristic And Test Circuit Diagram



Notes:

1. Rise Time = 7ns max.
Input impedance = 1 megohm, 22pF
2. Rise Time = 10ns max.
Source impedance = 50 ohms
3. Resistors are non-inductive





注意事项

1. 深圳市华天微电子有限公司的产品销售分为直销和销售代理，无论哪种方式，订货时请与公司核实。
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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

NOTE

1. Shenzhen Huatianwei Electronics co., Ltd sales its product either through direct sales or sales agent , thus, for customers, when ordering , please check with our company.
2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Shenzhen Huatianwei Electronics co., Ltd reserves the right to make changes in this specification sheet and is subject to change without prior notice.

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