Zibo Seno Electronic Engineering Co., Ltd.

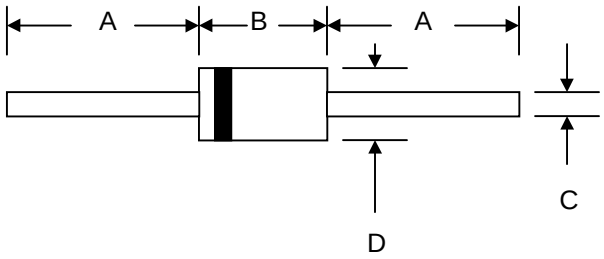
淄博圣诺

R1500F - R4000F

HIGH VOLTAGE RECTIFIER

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability



DO-41		
Dim	**Min**	**Max**
A	24.5	—
B	4.06	5.21
C	0.60	0.80
D	2.00	3.00
All Dimensions in mm		

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.35 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	R1500F	R2000F	R3000F	R4000F	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	1500	2000	3000	4000	V
RMS Reverse Voltage	$V_{R(RMS)}$	1050	1400	2100	2800	V
Average Rectified Output Current (Note 1) @T_A = 55°C	I_O	500		200		mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30		25		A
Forward Voltage @I_F = Io	V_{FM}	3.0				V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	5.0 50				μA
Reverse Recovery Time (Note 2)	trr	400				nS
Typical Junction Capacitance (Note 2)	C_j	7.0				pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	117				K/W
Operating Temperature Range	T_j	-55 to +150				°C
Storage Temperature Range	T_{STG}	-55 to +150				°C

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case
2. Measured with IF = 0.5A, IR = 1.0A, IRR = 0.25A. See figure 1.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

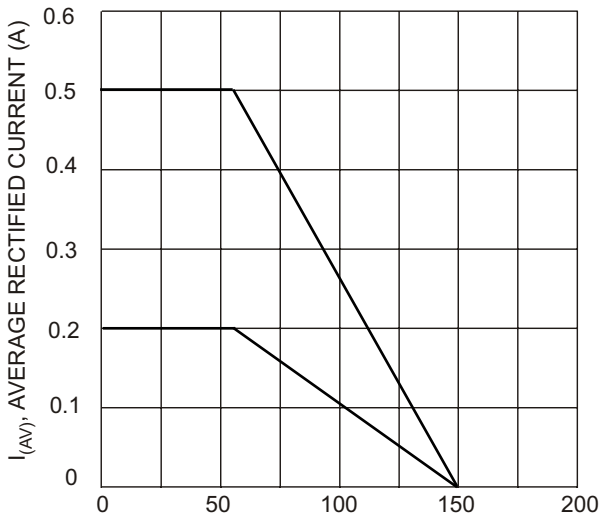


Fig. 1 Forward Current Derating Curve

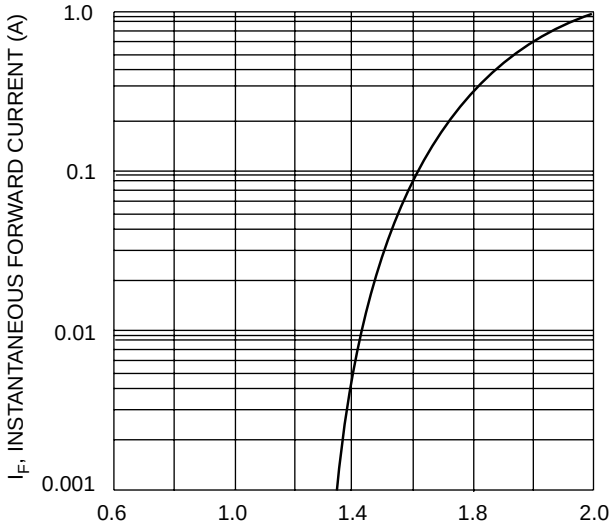


Fig. 2 Typical Forward Characteristics

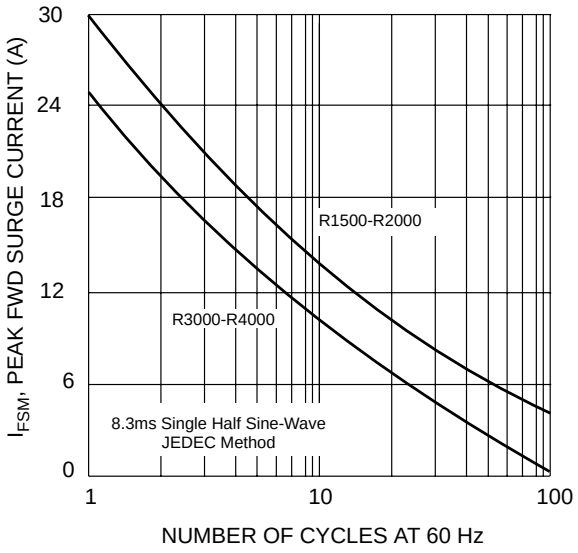


Fig. 3 Peak Fwd Surge Current vs # of Cycles @ 60 Hz

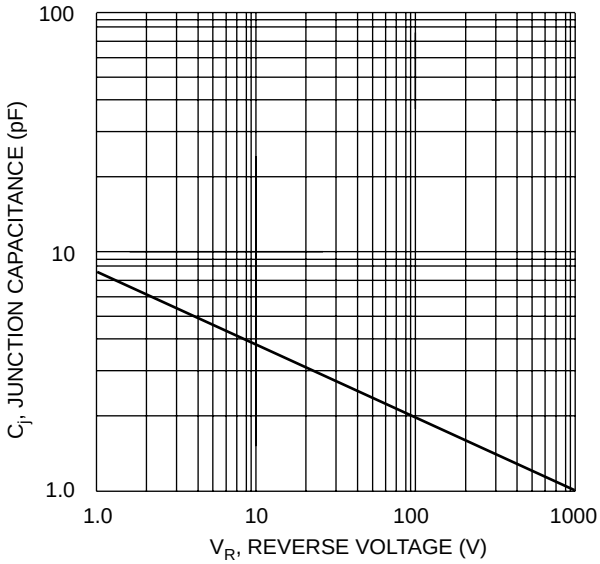
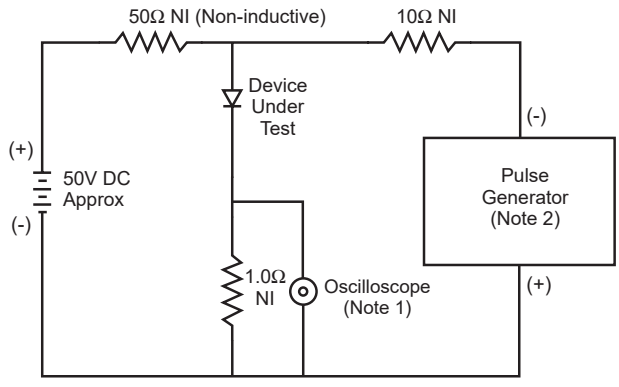
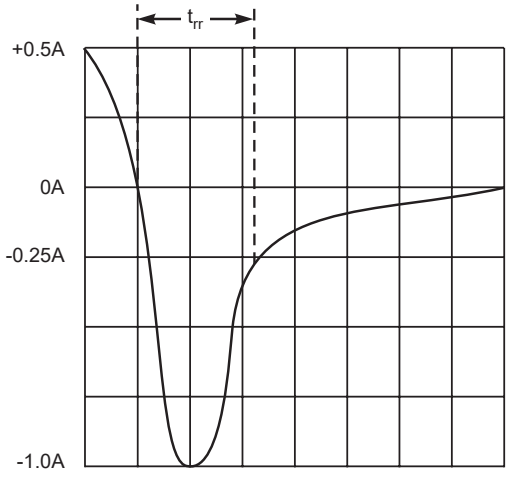


Fig. 4 Typical Junction Capacitance





Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω.

Set time base for 5/10ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit