

9347963 UNITRODE CORP

92D 10978 D  
*T-03-15*  
 SES5001-SES5003

# RECTIFIERS

## High Efficiency, 2A

**FEATURES**

- Fast Recovery Times
- Low Forward Voltage
- Small Size
- Convenient Package

**DESCRIPTION**

An axial loaded power rectifier useful in many switching applications. Particularly suited where very fast recovery and low forward voltage are required.

**ABSOLUTE MAXIMUM RATINGS**

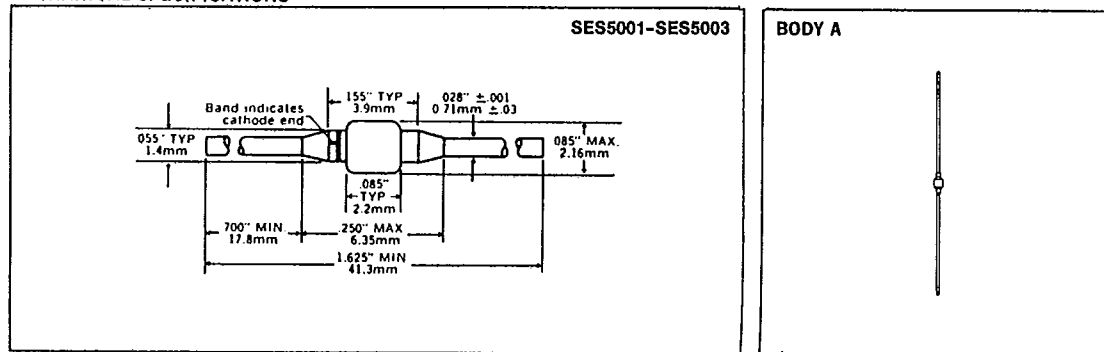
Peak Inverse Voltage, SES5001 .....	.50V
Peak Inverse Voltage, SES5002 .....	100V
Peak Inverse Voltage, SES5003 .....	150V
Maximum Average D.C. Output Current at $T_J = 75^\circ\text{C}$ , $L = 3/8"$ .....	.2A
Non-Repetitive Surge Current at 8.3mS .....	.35A
Thermal Resistance, @ $L = 3/8"$ .....	.38 $^\circ\text{C/W}$
Operating and Storage Temperature Range .....	$-55^\circ\text{C} + 175^\circ\text{C}$

**ELECTRICAL SPECIFICATIONS**

Type	PIV	Maximum Forward Voltage ( $V_F$ )		Maximum Reverse Current ( $I_R$ )		Maximum Reverse Recovery Time*
		@ $T_J = 25^\circ\text{C}$	@ $T_J = 100^\circ\text{C}$	@ $T_J = 25^\circ\text{C}$	@ $T_J = 100^\circ\text{C}$	
SES5001	50V	.975V	.895V			
SES5002	100V	@	@	2 $\mu\text{A}$	50 $\mu\text{A}$	100nS
SES5003	150V	1A	1A			

\*Measured in circuit  $I_F = .5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{REC} = .25\text{A}$

**MECHANICAL SPECIFICATIONS**



THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 11.



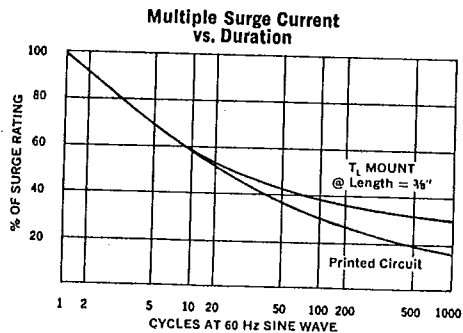
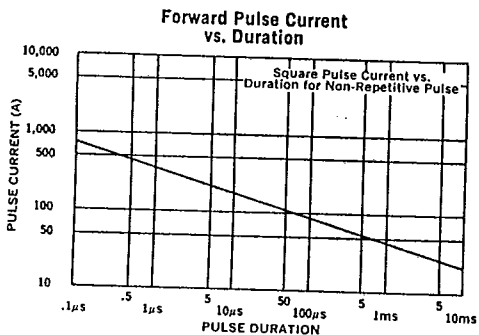
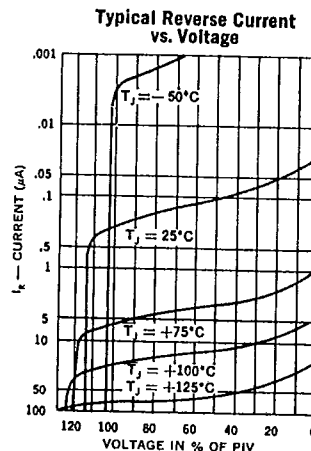
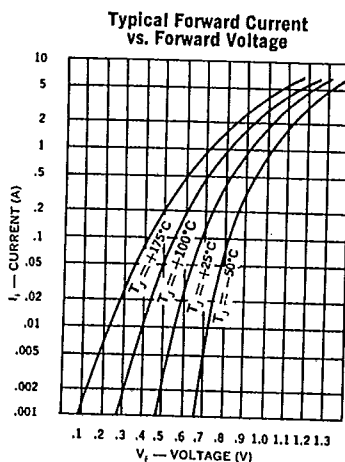
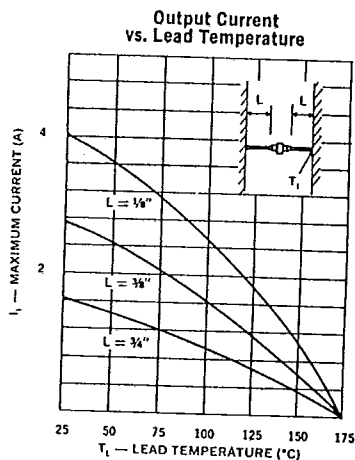
9347963 UNITRODE CORP

92D 10979 D

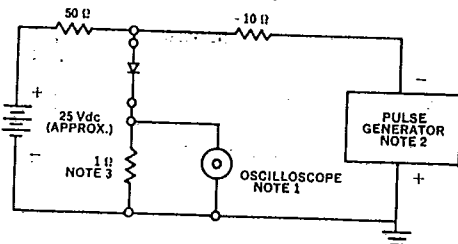
SES5001-SES5003

T-03-15

4



### Reverse-Recovery Circuit



- NOTES:
1. Oscilloscope: Rise time  $< 3 ns$ ; Input impedance =  $50 \Omega$ .
  2. Pulse Generator: Rise time  $< 8 ns$ ; source impedance  $10 \Omega$ .
  3. Current viewing resistor, non-inductive, coaxial recommended.