RECTIFIERS
High Efficiency, 1A

UES1001-UES1003

2

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

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

ABSOLUTE MAXIMUM RATINGS

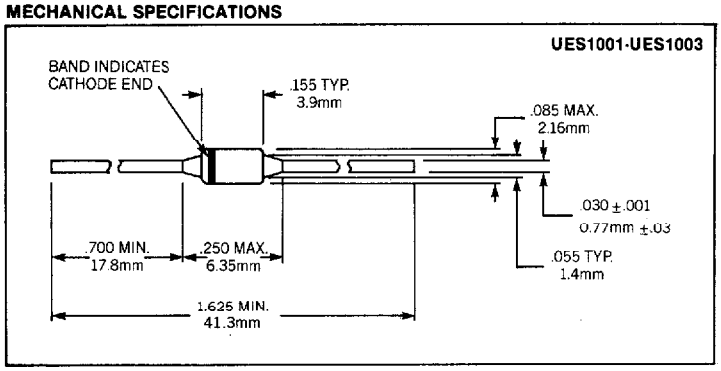
Peak Inverse Voltage, UES1001 ..... 50V
Peak Inverse Voltage, UES1002 ..... 100V
Peak Inverse Voltage, UES1003 ..... 150V
Maximum Average D.C. Output Current at T_L = 75°C, L = 3/8" 1A
Non-Repetitive Surge Current at 8.3mS 30A
Thermal Resistance at L = 3/8" ..... 75°C/W
Operating and Storage Temperature Range ..... −55°C +175°C

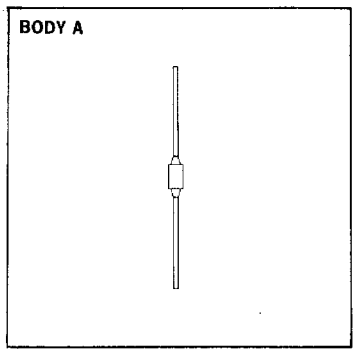
ELECTRICAL SPECIFICATIONS

Type	PIV	Maximum Forward Voltage (V_F) @		Maximum Reverse Current (I_R) @PIV		Maximum Reverse Recovery Time*
		T_J = 25°C	T_J = 100°C	@ T_J = 25°C	@ T_J = 100°C	
UES1001 UES1002 UES1003	50V 100V 150V	.975V @ 1A	.895V @ 1A	2μA	50μA	25nS

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

MECHANICAL SPECIFICATIONS

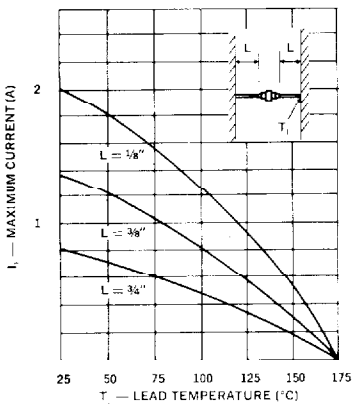




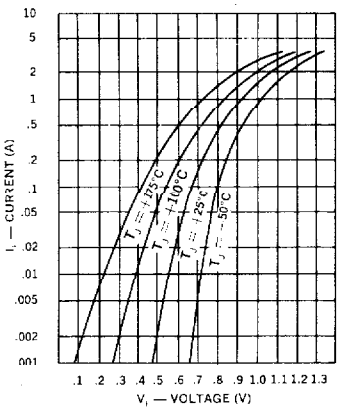
THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 10

Microsemi Corp.
Watertown
The diode experts

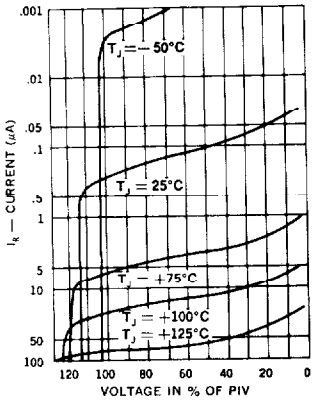
Output Current vs. Lead Temperature



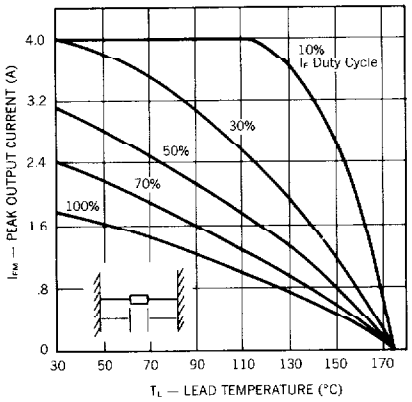
Typical Forward Current vs. Forward Voltage



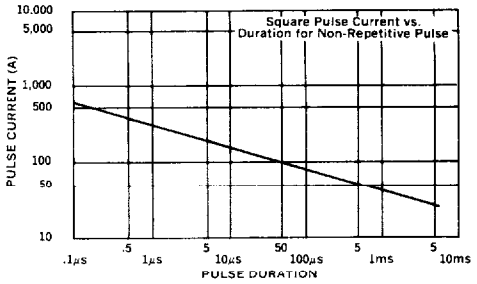
Typical Reverse Current vs. Voltage



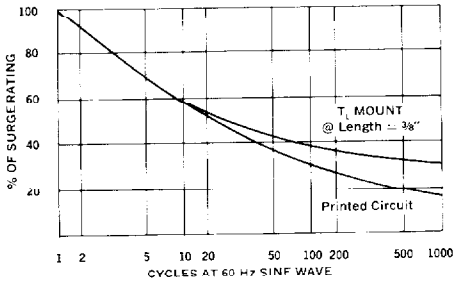
Peak Output Current vs. Lead Temperature



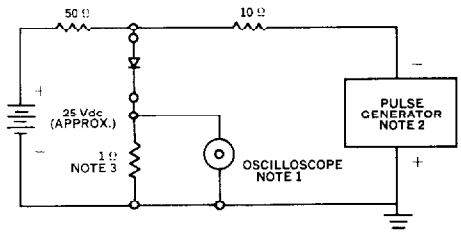
Forward Pulse Current vs. Duration



Multiple Surge Current vs. Duration



Reverse-Recovery Circuit



NOTES:
1. Oscilloscope: Rise time≤3nS; input impedance = 50Ω.
2. Pulse Generator: Rise time≤8nS; source impedance 10Ω.
3. Current viewing resistor, non-inductive, coaxial recommended.