RECTIFIERS
High Efficiency, 2.5A

UES1101 BYV27-50
UES1102 BYV27-100
UES1103 BYV27-150

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

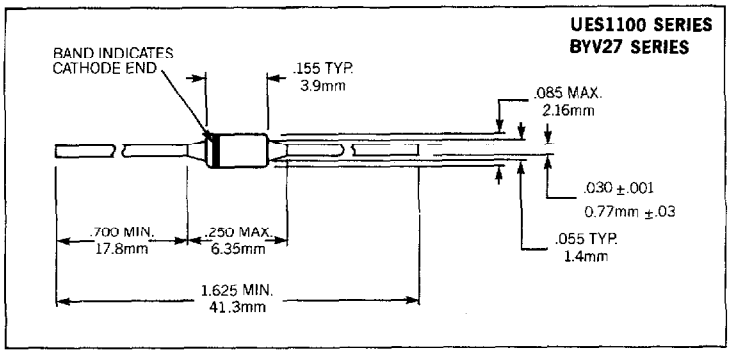
	UES1101	UES1102	UES1103	BYV27-50	BYV27-100	BYV27-150
Peak Inverse Voltage, V_R	50V	100V	150V	50V	100V	150V
Maximum Average D.C. Output at T_L = 75°C, L = ⅜", I_O	2.5A			2.0A		
Non-Repetitive Surge Current at 8.3ms, I_{FSM}	35A			50A		
Thermal Resistance at L = ⅜", $R_{\theta JC}$	36°C/W			46°C/W		
Junction Operating Temperature, T_j	175°C			165°C		
Operating and Storage Temperature Range	-55°C to +175°C					

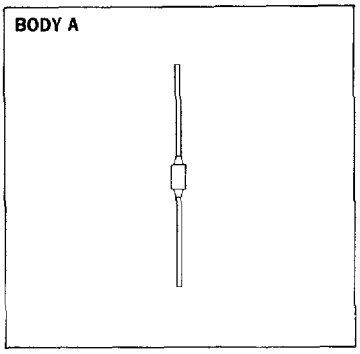
ELECTRICAL SPECIFICATIONS

Type	Maximum Reverse Voltage V_R	Maximum Forward Voltage @		Maximum Reverse Current @ Rated V_R		Maximum Reverse Recovery Time*
		T_J = 25°C	T_J = 100°C	T_J = 25° C	T_J = 100°C	
UES1101 UES1102 UES1103	50V 100V 150V	.975V @ 2A	.895V @ 2A	2μA	50μA	25nS
		T_J = 25°C	T_J = 165°C	T_J = 25°C	T_J = 165°C	
BYV27-50 BYV27-100 BYV27-150	50V 100V 150V	1.25V @ 5A	.85V @ 2.5A	1μA	150μA	25nS

*Measured in circuit I_F = ½A, I_R 1.0A, I_{REC} = ¼A

MECHANICAL SPECIFICATIONS

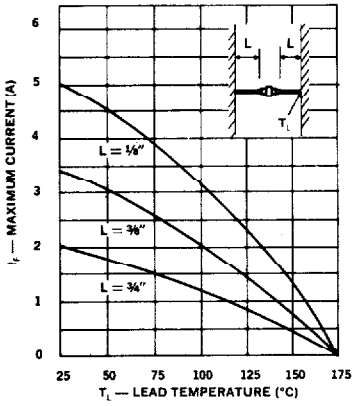




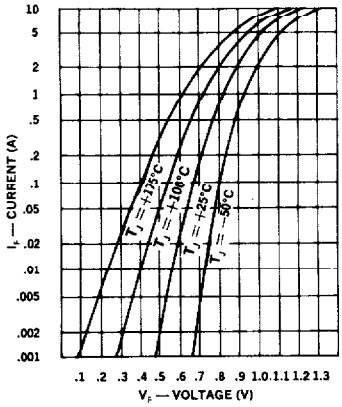
THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 10

Microsemi Corp.
Watertown
The diode experts

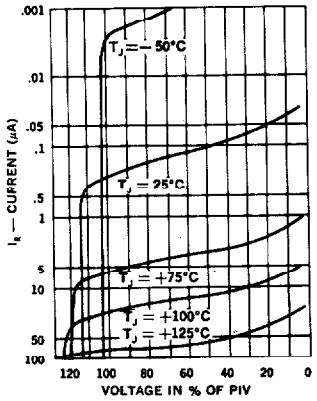
Output Current vs. Lead Temperature



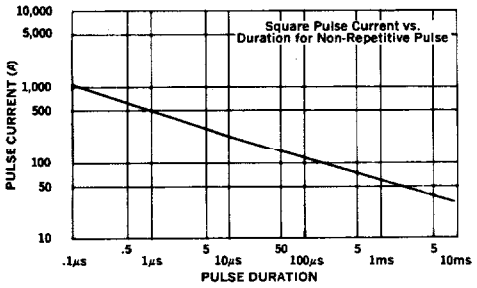
Typical Forward Current vs. Forward Voltage



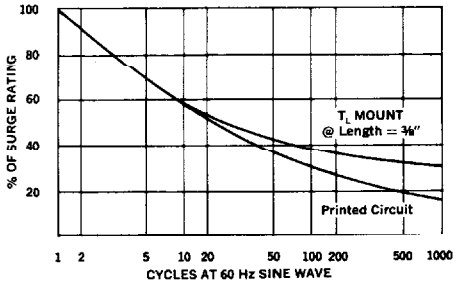
Typical Reverse Current vs. Voltage



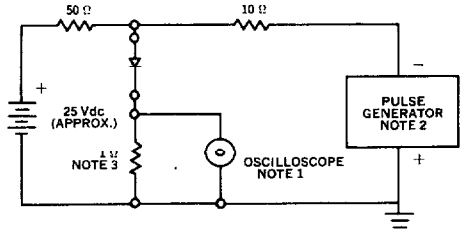
Forward Pulse Current vs. Duration



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.

580 PLEASANT STREET • WATERTOWN, MA 02172
TEL. (617) 926-0404 • FAX (617) 924-1235

PRINTED IN U.S.A.