RECTIFIERS
High Efficiency, 3.5A

UES1301 BYV28-50
UES1302 BYV28-100
UES1303 BYV28-150

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

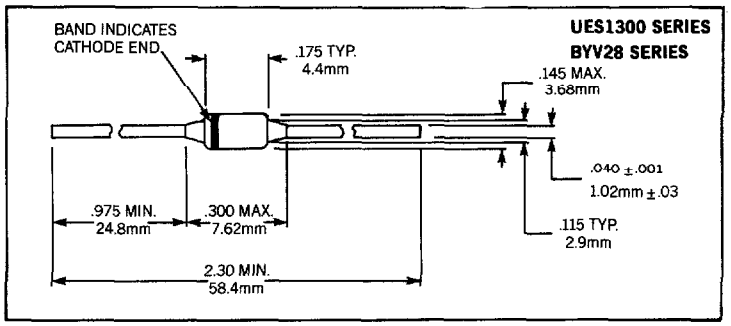
	UES1301	UES1302	UES1303	BYV28-50	BYV28-100	BYV28-150
Peak Inverse Voltage, V_R	50V	100V	150V	50V	100V	150V
Maximum Average D.C. Output at T_L = 75°C, L = ⅜" I_O	6.0A			3.5A		
Non-Repetitive Surge Current at 8.3ms, I_{FSM}	125A			80A		
Thermal Resistance at L = ⅜", $R_{\theta JC}$	20°C/W			25°C/W		
Junction Operating Temperature, T_j	175°C			165°C		
Operating and Storage Temperature Range	-55°C to +175°C					

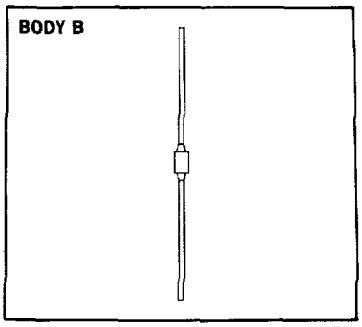
ELECTRICAL SPECIFICATIONS

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	
UES1301 UES1302 UES1303	50V 100V 150V	.925V @ 6A	.850V @ 6A		5μA	150μA	30ns
		T_J = 25°C	T_J = 165°C		T_J = 25°C	T_J = 100°C	
BYV28-50 BYV28-100 BYV28-150	50V 100V 150V	1.10V @ 5A	.75V @ 3A	.90V @ 5A	1μA	150μA	30ns

*Measured in circuit I_F = 0.5A, I_R = 1.0A, I_{REC} = .25A

MECHANICAL SPECIFICATIONS

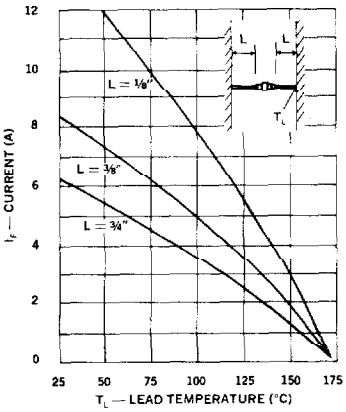




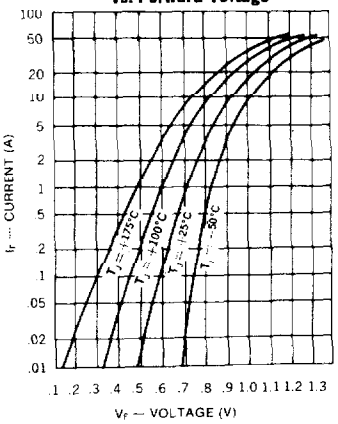
THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 10

Microsemi Corp.
Watertown
The diode experts

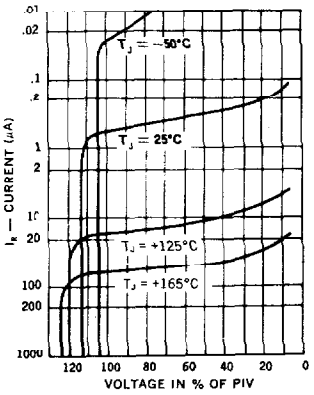
Output Current vs. Lead Temperature



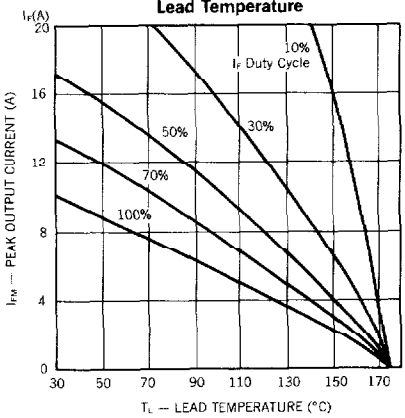
Typical Forward Current vs. Forward Voltage



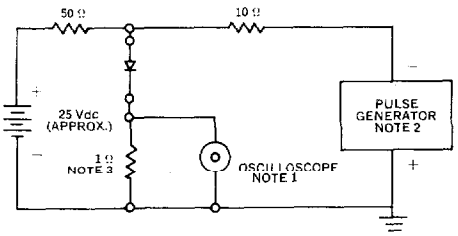
Typical Reverse Current vs. Voltage



Peak Output Current vs. Lead Temperature

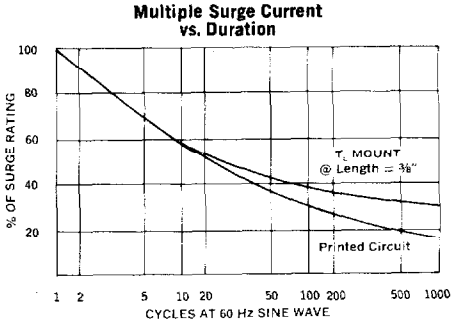
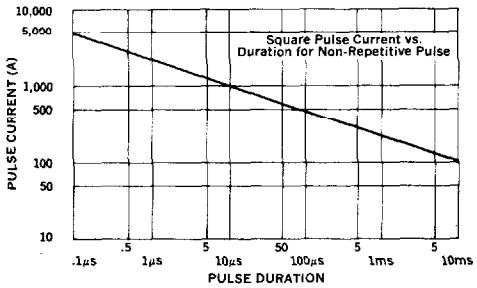


Reverse-Recovery Circuit



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.

Multiple Surge Current vs. Duration



Forward Pulse Current vs. Duration