

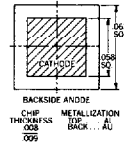
RECTIFIERS

High Efficiency, 5A

UES1304
UES1305
UES1306

FEATURES

- Very Low Forward Voltage (1.15V)
- Very Fast Recovery Times (50nSec)
- Small Size
- High Surge



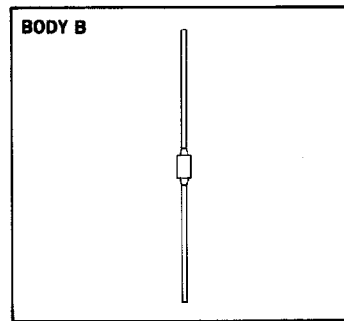
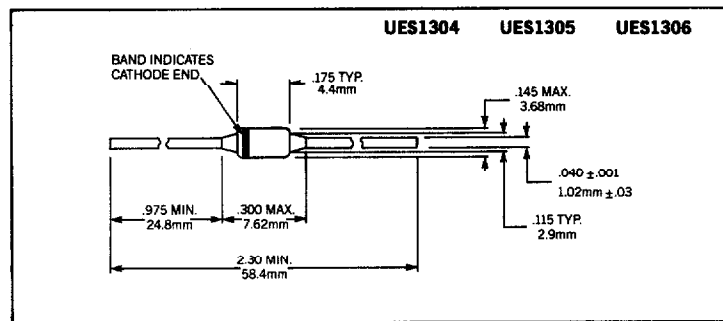
DESCRIPTION

The UES1304 series is specifically designed for operation in power switching circuits operating at frequencies of at least 20 KHz.

ABSOLUTE MAXIMUM RATINGS

Peak Inverse Voltage, UES1304	.200V
Peak Inverse Voltage, UES1305	.300V
Peak Inverse Voltage, UES1306	.400V
Maximum Average DC Output Current, I_O	
@ $T_A = 25^\circ\text{C}$ (Free Air)	3A
@ $T_L = 50^\circ\text{C}$, $L = \frac{1}{8}"$	5A
Surge Current, 8.3mSec	.70A
Thermal Resistance @ $L = \frac{1}{8}"$	20°C/W
Operating and Storage Temperature Range	-55°C to +150°C

MECHANICAL SPECIFICATIONS



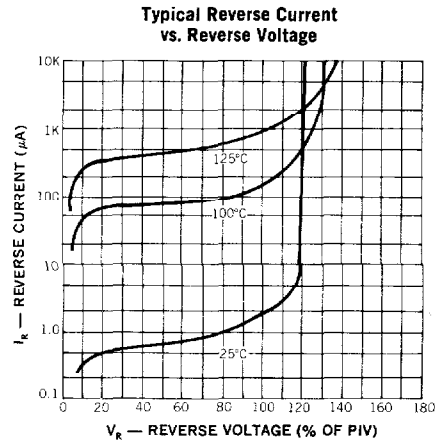
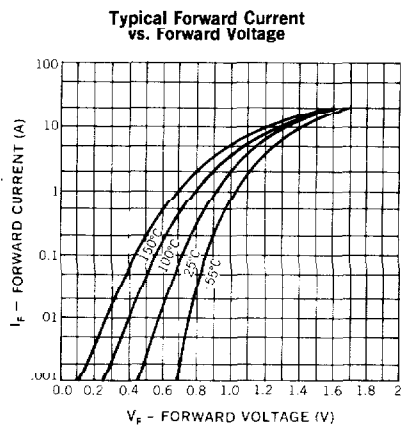
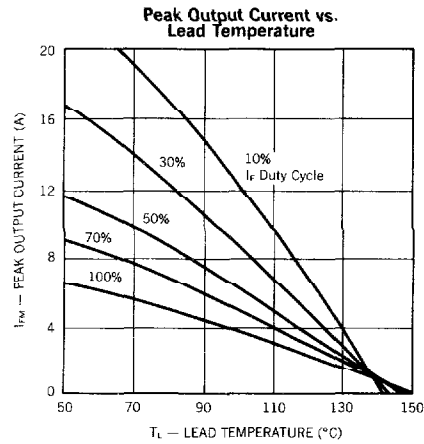
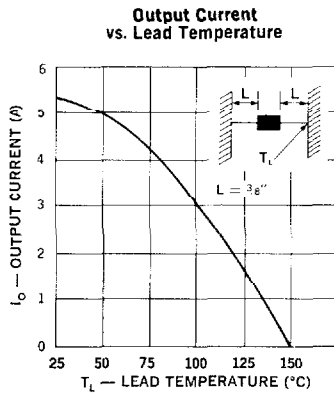
THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 10

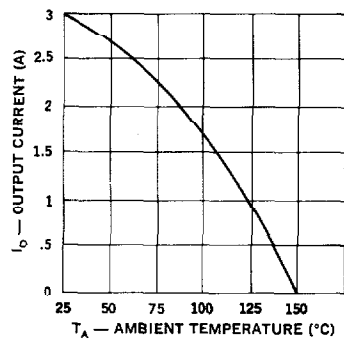
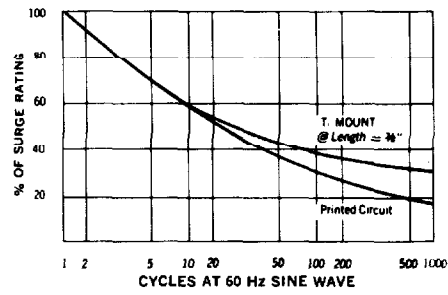
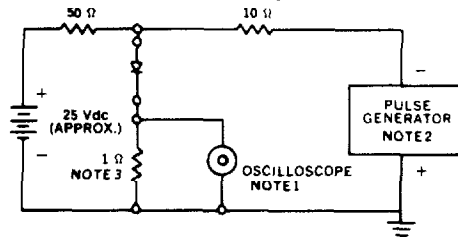
Microsemi Corp.
Watertown
The diode experts

ELECTRICAL SPECIFICATIONS

Type	PIV	Maximum Forward Voltage		Maximum Reverse Current		Maximum Reverse Recovery Time*
		$T_J = 25^\circ\text{C}$	$T_J = 100^\circ\text{C}$	@ PIV, $T_J = 25^\circ\text{C}$	$T_J = 100^\circ\text{C}$	
UES1304	200V	1.25V	1.15V	20 μA	500 μA	50nS
UES1305	300V	@ 3A	@ 3A			
UES1306	400V	$t_p = 300 \mu\text{s}$	$t_p = 300 \mu\text{s}$			

* Measured in circuit $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{\text{REC}} = 0.25\text{A}$



Output Current vs Ambient Temperature**Multiple Surge Current vs. Duration****Reverse-Recovery Circuit****NOTES:**

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