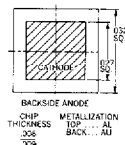


FEATURES

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



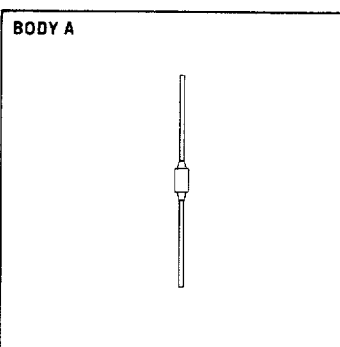
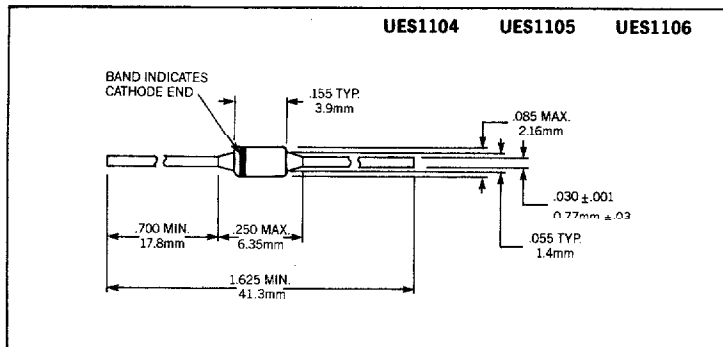
DESCRIPTION

The UES1104 series is specifically designed for operation in power switching circuits operating at frequencies of at least 20 KHz.

ABSOLUTE MAXIMUM RATINGS

Peak Inverse Voltage, UES1104	200V
Peak Inverse Voltage, UES1105	300V
Peak Inverse Voltage, UES1106	400V
Maximum Average DC Output Current, I_O	
@ $T_A = 25^\circ\text{C}$ (Free Air)	1A
@ $T_L = 50^\circ\text{C}$, $L = \frac{3}{8}"$	2A
Surge Current, 8.3mSec	20A
Thermal Resistance @ $L = \frac{3}{8}"$	38°C/W
Operating and Storage Temperature Range	-55°C to +150°C

MECHANICAL SPECIFICATIONS



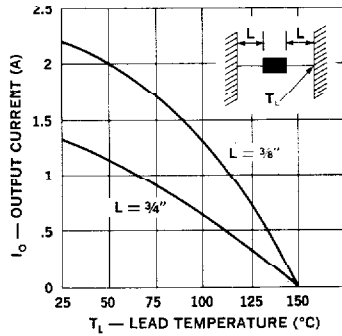
THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 10

ELECTRICAL SPECIFICATIONS

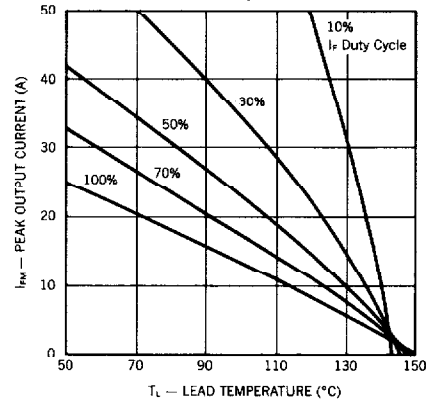
Type	PIV	Maximum Forward Voltage		Maximum Reverse Current		Maximum Reverse Recovery Time*
		$T_J = 25^\circ\text{C}$	$T_J = 100^\circ\text{C}$	@ PIV, $T_J = 25^\circ\text{C}$	$T_J = 100^\circ\text{C}$	
UES1104/1104HR	200V	1.25V @ 1A $t_p = 300\mu\text{s}$	1.15V @ 1A $t_p = 300\mu\text{s}$	$10\mu\text{A}$	$200\mu\text{A}$	50nS
UES1105/1105HR	300V					
UES1106/1106HR	400V					

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

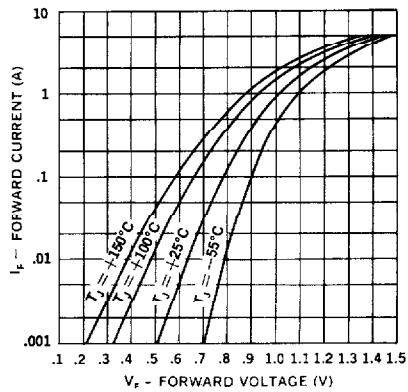
Output Current vs. Lead Temperature



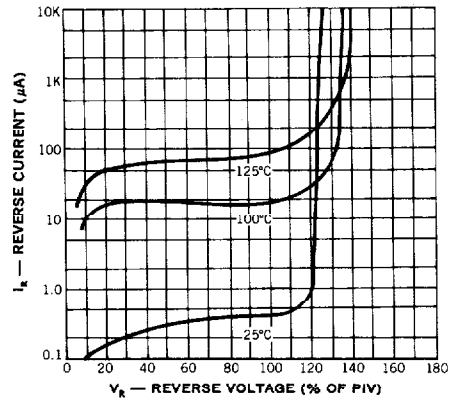
Peak Output Current vs. Lead Temperature



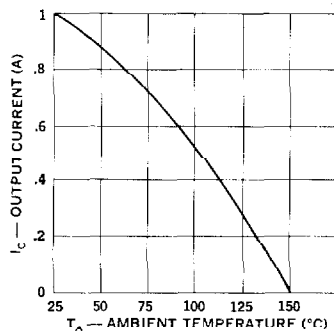
Typical Forward Current vs. Forward Voltage



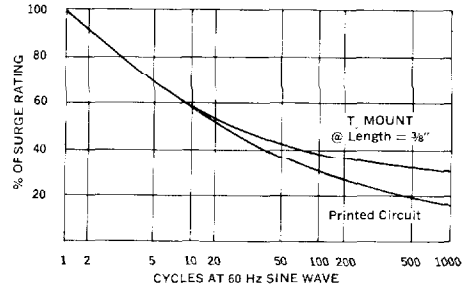
Typical Reverse Current vs. Reverse Voltage



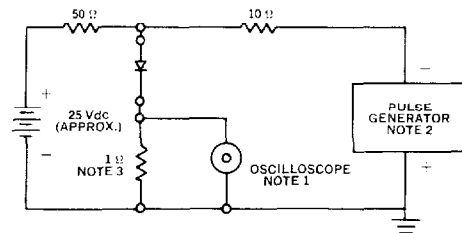
**Output Current vs.
Ambient Temperature.**



**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 100 Ω.
3. Current viewing resistor, non-inductive, coaxial recommended.

• **OPTIONAL HIGH RELIABILITY (HR2) SCREENING (See 1N6620-1N6625)**