RECTIFIERS
High Efficiency, 5A

UES1304
UES1305
UES1306

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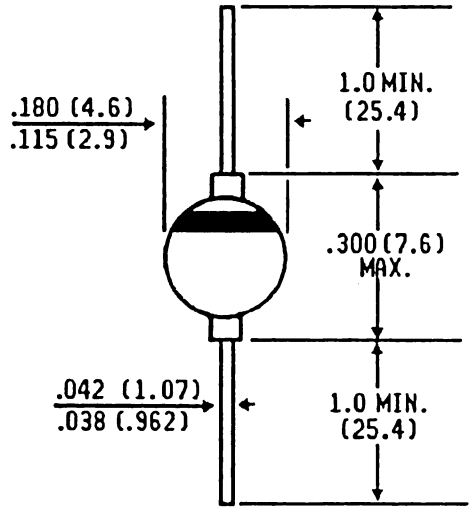
FEATURES
- Very Low Forward Voltage (1.15V)
- Very Fast Recovery Times (50nSec)
- Small Size
- High Surge

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°C (Free Air)	3A
@ T_L = 50°C, L = ⅜"	5A
Surge Current, 8.3mSec	70A
Thermal Resistance @ L = ⅜"	20°C/W
Operating and Storage Temperature Range	−55°C to +150°C

G4



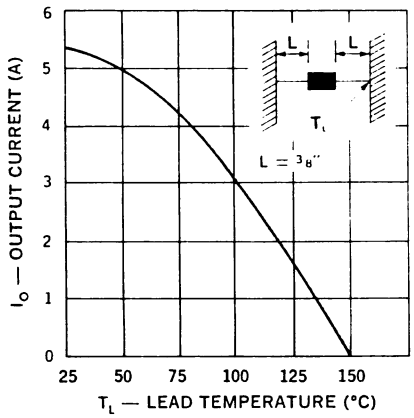
Dimensions in inches and (millimeters)

ELECTRICAL SPECIFICATIONS

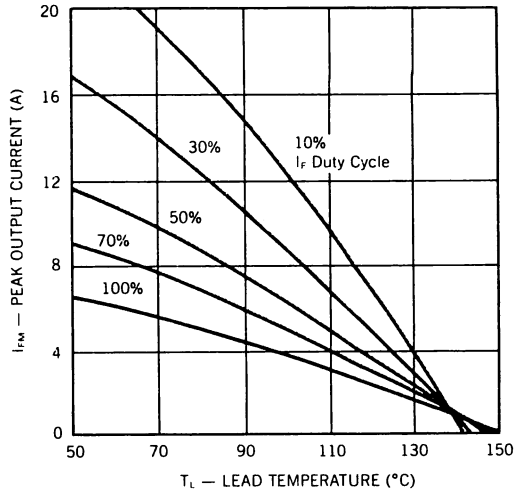
Type	PIV	Maximum Forward Voltage		Maximum Reverse Current		Maximum Reverse Recovery Time*
		$T_J = 25°C$	$T_J = 100°C$	@ PIV, $T_J = 25°C$	$T_J = 100°C$	
UES1304 UES1305 UES1306	200V 300V 400V	1.25V @ 3A tp = 300μS	1.15V @ 3A tp = 300μS	20μA	500μA	50nS

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

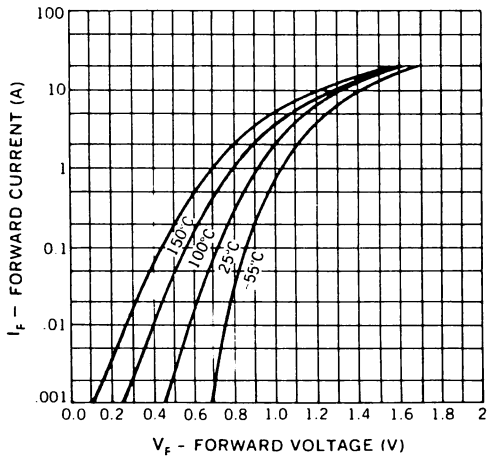
Output Current vs. Lead Temperature



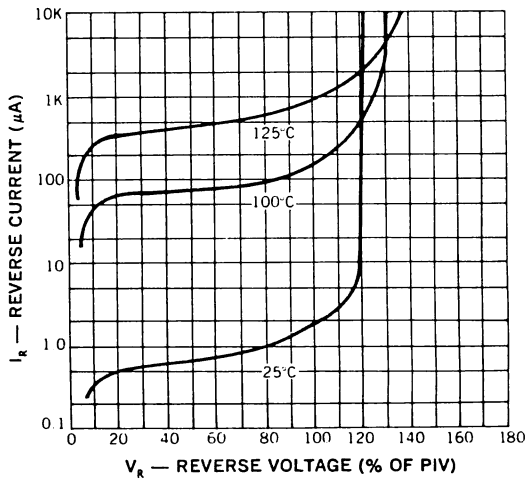
Peak Output Current vs. Lead Temperature



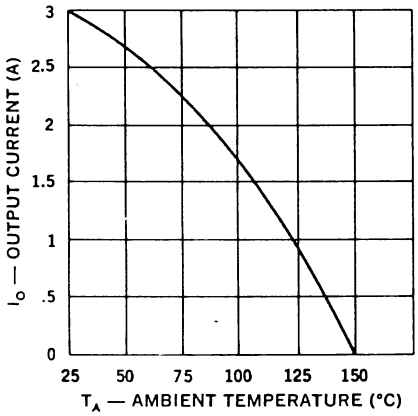
Typical Forward Current vs. Forward Voltage



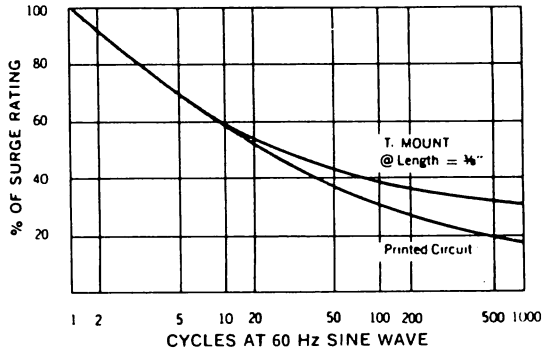
Typical Reverse Current vs. Reverse Voltage



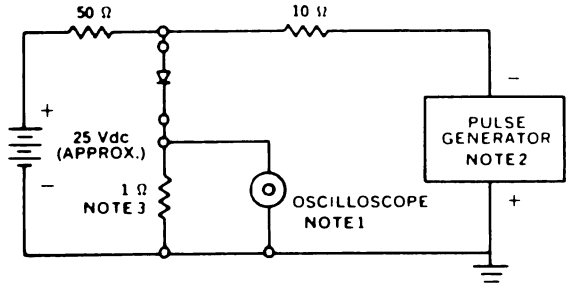
Output Current vs Ambient Temperature



Multiple Surge Current vs. Duration



Reverse-Recovery Circuit



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