DIGITRON SEMICONDUCTORS

UES1101 – UES1103 2.5A HIGH-EFFICIENCY RECTIFIERS

MAXIMUM RATINGS

Rating	Symbol	UES1101	UES1102	UES1103	Unit
Peak inverse voltage	V_R	50	100	150	V
Maximum average DC output at T_L = 75°C, L = 3/8”	I_O	2.5			A
Non-repetitive surge current at 8.3ms	I_{FSM}	35			A
Thermal resistance at L = 3/8:”	$R_{\Theta JC}$	38			°C/W
Junction operating temperature	T_J	175			°C
Operating and storage temperature range	T_{op}, T_{stg}	-55 to 175			°C

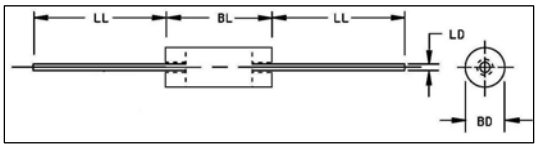
ELECTRICAL CHARACTERISTICS

Part number	Maximum reverse voltage	Maximum forward voltage @		Maximum reverse current @ rated VR		Maximum reverse recovery time*
	V_R	T_J = 25°C	T_J = 100°C	T_J = 25°C	T_J = 100°C	
	Volts			µA	µA	nS
UES1101	50	0.975V @ 2A	0.895V @ 2A	2	50	25
UES1102	100					
UES1103	150					

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

MECHANICAL CHARACTERISTICS

Case:	Digi A, Glass Package
Marking:	Body Painted, Alpha-Numeric
Polarity:	Cathode Band



Dim	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.095	-	2.413
BL	-	0.250	-	6.350
LD	0.028	0.032	0.711	0.813
LL	0.700	-	17.800	-

Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).
Available as “HR” (high reliability) screened per MIL-PRF-19500, JANTX level. Add “HR” suffix to base part number.

144 Market Street
Kenilworth NJ 07033 USA

phone +1.908.245-7200
fax +1.908.245-0555

sales@digitroncorp.com
www.digitroncorp.com

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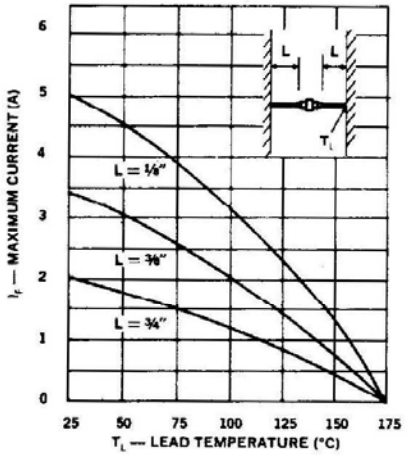
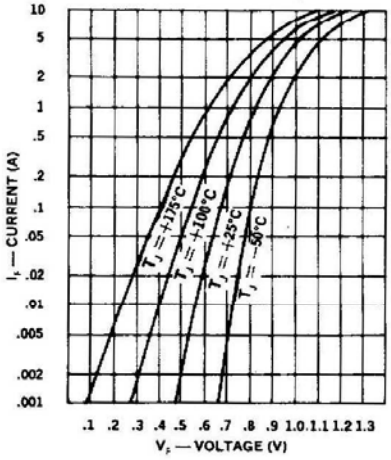
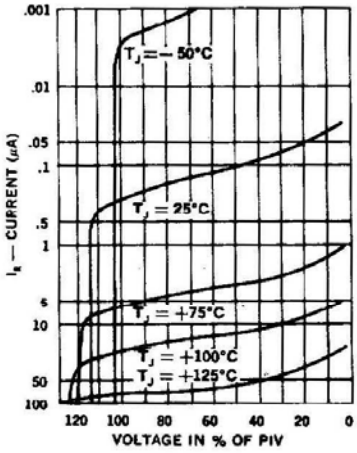
Output Current vs. Lead Temperature



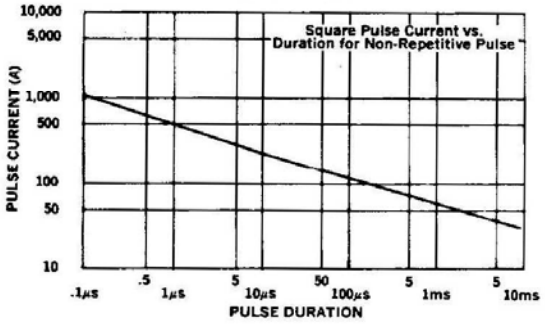
Typical Forward Current vs. Forward Voltage



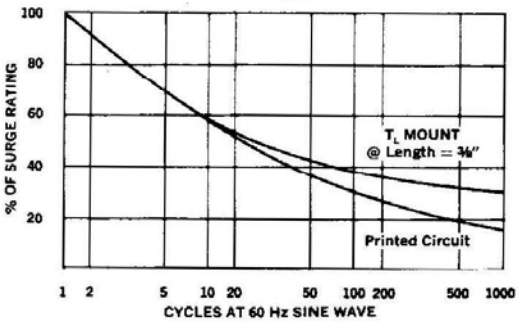
Typical Reverse Current vs. Voltage



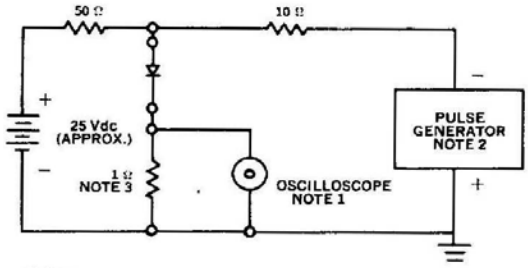
Forward Pulse Current vs. Duration



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.

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