

# DIGITRON SEMICONDUCTORS

UF110-UF120

ULTRA FAST RECOVERY RECTIFIERS

## ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	UF110	UF115	UF120	Test Conditions
Working peak reverse voltage	$V_{RWM}$	100V	150V	200V	
Repetitive peak reverse voltage	$V_{RRM}$	100V	150V	200V	
Average forward current	$I_{F(AV)}$	1.0A			$T_L = 135^\circ\text{C}$ , square wave, $R_{\theta JL} = 15^\circ\text{C/W}$ , $L = 1/4"$
Maximum surge current	$I_{FSM}$	35A			8.3ms, half-sine, $T_J = 175^\circ\text{C}$
Maximum peak forward voltage	$V_{FM}$	0.75V			$I_{FM} = 0.1\text{A}$ , $T_J = 25^\circ\text{C}^*$
Maximum peak forward voltage	$V_{FM}$	0.95V			$I_{FM} = 1.0\text{A}$ , $T_J = 25^\circ\text{C}^*$
Maximum reverse recovery time	$t_{rr}$	30ns			1/2A, 1A, 1/4A, $T_J = 25^\circ\text{C}$
Maximum peak reverse current	$I_{RM}$	5 $\mu\text{A}$			$V_{RRM}$ , $T_J = 25^\circ\text{C}$
Typical junction capacitance	$C_J$	10pF			$V_R = 10\text{V}$ , $T_J = 25^\circ\text{C}$

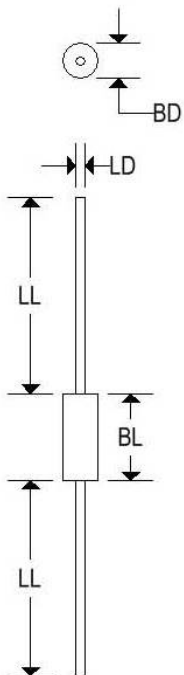
\*Pulse test: pulse width 300 $\mu\text{sec}$ , duty cycle 2%

## THERMAL CHARACTERISTICS

Characteristics	Symbol	Test Conditions
Storage temperature range	$T_{stg}$	-55° to 175°C
Operating junction temperature range	$T_J$	-55° to 175°C
Maximum thermal resistance, $L = 1/4"$	$R_{\theta JL}$	15°C/W junction to lead

## MECHANICAL CHARACTERISTICS

Case	DO-41
Marking	Body painted, alpha numeric
Polarity	Cathode band



	DO-41			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.107	-	2.720
BL	-	0.205	-	5.207
LD	0.028	0.034	0.711	0.864
LL	1.000	-	25.400	-

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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Figure 1  
Typical Forward Characteristics

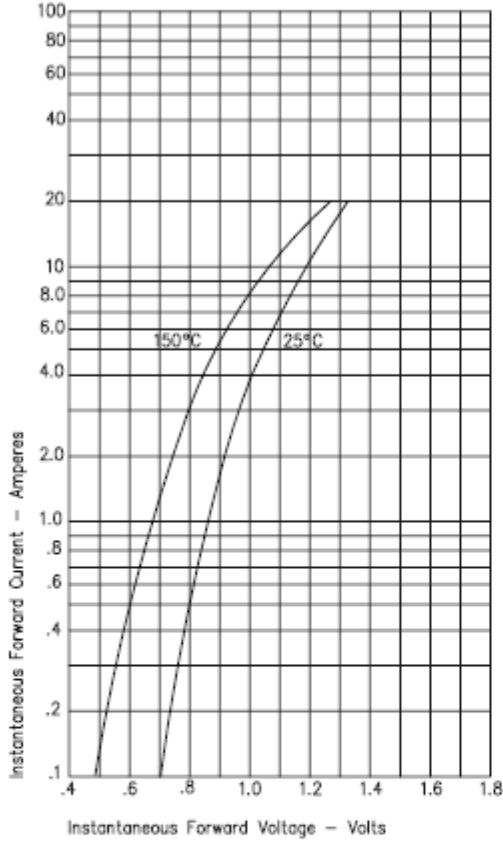


Figure 3  
Typical Junction Capacitance

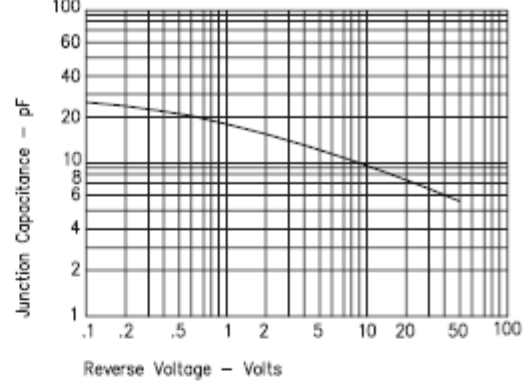


Figure 2  
Typical Reverse Characteristics

